



NATIONAL
STANDARDS
NL-ENG.K-12.3
NSS-EC.K-4.3

UNIT 3: DISTRIBUTION

How Food Moves from Farm to You

Grade level: Primary

Student Learning Objectives

At the end of this lesson, students will be able to:

1. Explain how transportation makes it possible for agricultural products to move from the farm to consumers.
2. List at least three ways food travels.
3. Describe how one food—pasta—moves from farm to table.

Time: 50 minutes

Tools, Equipment, and Supplies: Writing surface, copies of Activity Sheet 10:1, Activity Sheet 10:2

Key Term(s): Distribution

Background Information

Distribution is often a challenge in the food system. American farmers are proficient at producing food, and technology makes it possible to have many foods available anywhere in our country and anywhere in the world at any time of the year. Most developed countries have railroad systems, river barges, air freight, truck fleets and other methods of transportation to distribute goods.

Not too many years ago, fresh fruits and vegetables could be found in the supermarket only “in season.” In the United States and other developed countries, technology helps supply a wide variety of food products year-round. Some foods may be stored under refrigeration or in an oxygen-free atmosphere to minimize spoilage. Others are imported from southern hemisphere countries where growing seasons are the opposite of ours.

Interest Approach

In the following interest approach the teacher should pose questions and take responses if desired. The questions may be posed as rhetorically if desired and asked quickly without answers to follow.

How did you get to school this morning?



NOTES

Wait for responses.

Did you ride in a car? Did you ride the bus? Did anyone fly here this morning? We all got here somehow, but we got here. May I just take this moment to say how happy I am that you made it?

Do you think food moves?

How does food move?

Does it have to move?

Where does food start out?

Where does it end up?

These are some very important questions that we just have to answer. Let's focus our minds today on finding out the answer to these questions.

OBJECTIVE 1: Explain how transportation makes it possible for agricultural products to move from the farm to consumers.

Make copies and pass out Activity Sheet 10:1, "How Food Moves from Farm to You," for students to follow along. Read the story with some enthusiasm. Pretend it is the most important dramatic performance of your life.

Let's read a story that will help us understand how food moves around and where it is moving.

OBJECTIVE 2: List at least three ways that food travels.

Wow! That Cob really knows how to travel! Who will share how the agricultural products in the story moved?

Answers include:

Tomato - Refrigerator truck (or refrigerated boxcar)

Wheat - Boxcar and truck

Milk - Special sterilized refrigerated tankers

Flowers - airplane

Which of these methods of transportation do you think is the fastest? (Answer: airplane). It's also the most expensive. That's why it's usually used only for products that would spoil quickly like fresh flowers and fresh fish.

Transportation is a small part of the food dollar. Less than five cents of every dollar spent on food goes to transportation; yet, a supermarket is filled with foods from around the world.



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OBJECTIVE 3: Describe how one food—pasta—moves from farm to table.

Now that we understand how transportation makes it possible for us to have any food, any time we want it, and three ways food travels, let's follow the path of pasta from the farm to the table.

Hand out the Activity Sheet 10:2, "How Pasta Moves from Farm to You." Next, deliver the directions below.

Remember the story about Maria and Cob? Think about how food is transported from one place to another and why, and then read the words and number the sentences to show how the food moves from farm to you.

SUMMARY / REVIEW

Wow! We learned a lot about how food moves around today. Just to make sure we have it, let's do one more thing.

Use a Dickens e-Moment® to review what students have learned about how food moves around and to expand their thinking to other products. Put students in groups of four.

Now that we are in groups of four, let's develop a story of another agricultural product and its journey. Here's the fun part. Each group gets to decide about which agricultural product they want to develop a story.

Examples might be a cow, an apple, a wool fiber, etc.

REFLECTIVE REVIEW QUESTIONS:

- Think about the ways different foods travel. Which foods must be moved with refrigeration? Which foods must be moved in special containers?
- Foods like pasta require lots of travel for processing. What are examples of foods that also require lots of travel for processing?

APPLICATION

APPLICATION 1: Learn more about the names of different pasta shapes. What do these names mean?



ACTIVITY SHEET 10:1

How Food Moves from Farm to You

It was late afternoon, and Maria walked into the family room. "Gee, I am tired," she thought. "Maybe I'll just watch a little TV."

But when she walked into the room, there was already someone sitting in her favorite TV chair. It was Cob, the ear of corn, and he was sound asleep. Around Maria's room were some fresh tomatoes, a cooler marked "Milk—Keep Cold," a box of spaghetti and a bouquet of fresh flowers.

"Cob, wake up. What are you doing here—and what's all this *stuff*?" Maria demanded.

Cob opened his eyes. "You have no idea. You're going to sit down to a wonderful dinner of spaghetti and salad tonight. I bet you don't even think about how it all got here."

Maria sighed. "Somehow, I think you're going to tell me."

Cob held up a tomato. "These were grown in Florida. I rode with them all that way in a refrigerated truck. Brrr!"

Next, he held up the box of spaghetti. "This took a long trip," he said. "The wheat grows on a farm in North Dakota. Some of it went by boxcar to the mill, where it was ground. Some of the wheat went by ship to other countries to make their pasta. Did you know that you can't use just any wheat for pasta? You need special hard wheat called *durum*."

"The flour went by truck to the pasta plant, where it was mixed with water to make the dough. Then the dough was shaped into long, thin strips and dried. Finally, big machines put it into this box." Cob held up the box of Maria's favorite spaghetti. "It got to the supermarket's big warehouse in a giant truck. A smaller truck took it to your supermarket.

Today, luckily, all I had to do was pick it up there. Then I took the bus to your house."

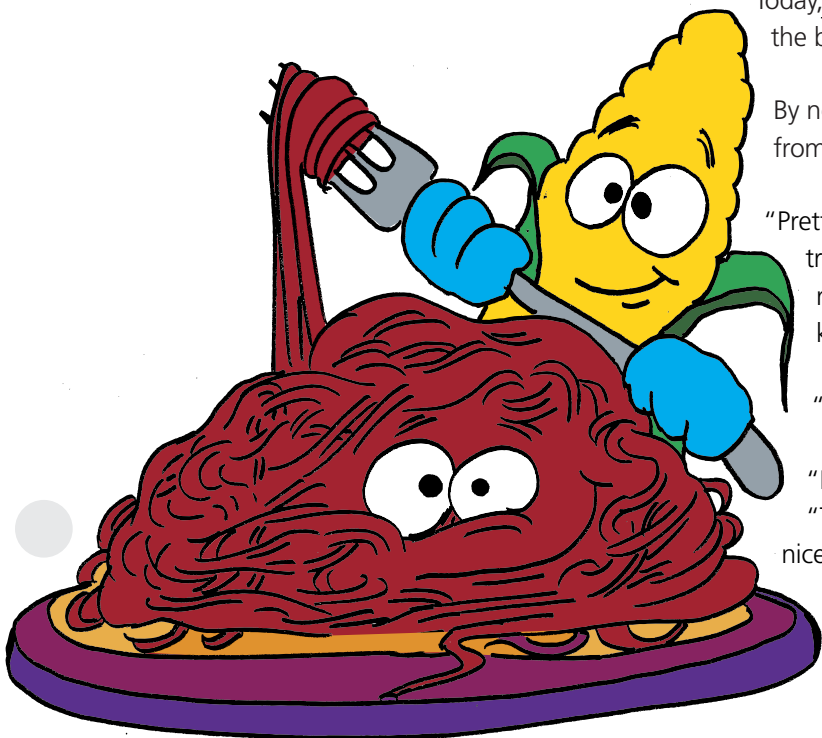
By now, Maria was interested. "Where did the milk come from?" she asked.

"Pretty close by. I was at the dairy farm. But when the big truck pulled in, they wouldn't let me get inside the refrigerated tank. I had to ride on top of the truck. But keeping everything so clean is what keeps the milk pure."

"What about the flowers?" Maria asked.

"I jetted in with these yesterday from the coast," Cob said.

"That means California, of course. I thought they'd be a nice gift for your mother. Didn't I tell you? I've invited myself for dinner."





ACTIVITY SHEET 10:2

How Pasta Moves from Farm to You

NOTES

_____ Long strips of spaghetti

At the factory, the flour is mixed with water. Then the dough is shaped into long, thin strips and dried. Big machines put the pasta into boxes.

_____ Plate

Americans love pasta. The average person eats about 18 pounds a year.

_____ Supermarket

There are many different pasta shapes on a supermarket shelf.

_____ Wheat kernels and flour

At the mill, the wheat is ground into a special flour.

_____ Wheat

Pasta comes from a special hard wheat called *durum* wheat. Most of it is grown in North Dakota.

_____ Warehouse

Warehouses store many kinds of food.

