



Farmer's Share Curriculum

Grades 3-5

Lesson 1

Objective: Students will develop their understanding of agriculture by making connections between the food they eat and where it comes from.

Background: If you ask students where their food comes from, the students will frequently answer “the refrigerator” or “the grocery store.” Food sourced from farms may not start out the way students are used to seeing it in the grocery store. Also, there is often an additional disconnect between foods and the locations where they are grown. Students may be unaware of what foods grow on trees, in fields, or in the ground. In this lesson, students will learn to think beyond the grocery store and develop a better awareness that the food they eat is grown somewhere, by someone, before it makes its way to the store.

Materials Needed:

- Activity sheets A and B
- Standard sized paper
- Markers, crayons, or colored pencils

Lesson Plan:

This lesson is delivered in two parts.

Part I:

1. Give students background information and leading questions, such as:
 - a) Does anyone know what ‘agriculture’ means?
 - b) Agriculture plays a major role in our lives, from what we wear and what we eat. We may not always think of agricultural products as the physical source of what we eat today. However, most daily essentials can be traced back to one or more agricultural sources.
 - c) Farming is what many think of when they hear the word “agriculture”. Farming is the production or growing of raw commodities. Can anyone give an example of what they think a “raw commodity” is? (Ex: wheat is used in pasta, bread, cereal, etc.; milk is used in ice cream, cheese, yogurt, etc.)
2. Hand out Activity Sheet A and have students match the end product to its source
3. Discuss answers as a class
4. Hand out Activity Sheet B; ensure students understand vocabular words before completing the worksheet

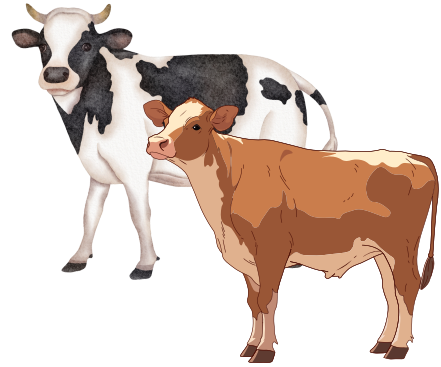
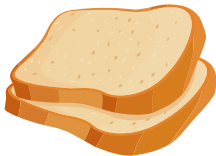
Part II:

1. Tell students to think of their favorite meal for dinner and all its necessary ingredients. While students are thinking about their answers, pass out materials. Each student will need one piece of paper and some markers / crayons / colored pencils .
2. Instruct students to fold their paper in half, hamburger style, and ask them to draw their favorite meal on the left half.
3. Next, have them label the picture with the necessary ingredients they came up with.
4. Using the right half of the paper, instruct the students to draw a simple farm. The farm should include a barn for livestock, a field for crops, and a body of water.
5. Once students have drawn their farm, ask them to draw each ingredient in its respective place. For example, if their meal has fish as an ingredient, then they would draw a fish in the farm's body of water. During this step, you may need to help them determine the origins of the processed ingredients in their favorite meal (i.e. noodles, bread, etc.) by returning to lessons learned in Part I
6. Have students share their farms and discuss ingredient origins. Correct any misconceptions between processed ingredients like pasta and ready to eat products like tomatoes.
7. Reflect on the lesson with the students. What did they learn? Were they surprised by anything? And, lastly, have students answer, **“where does food come from?”**

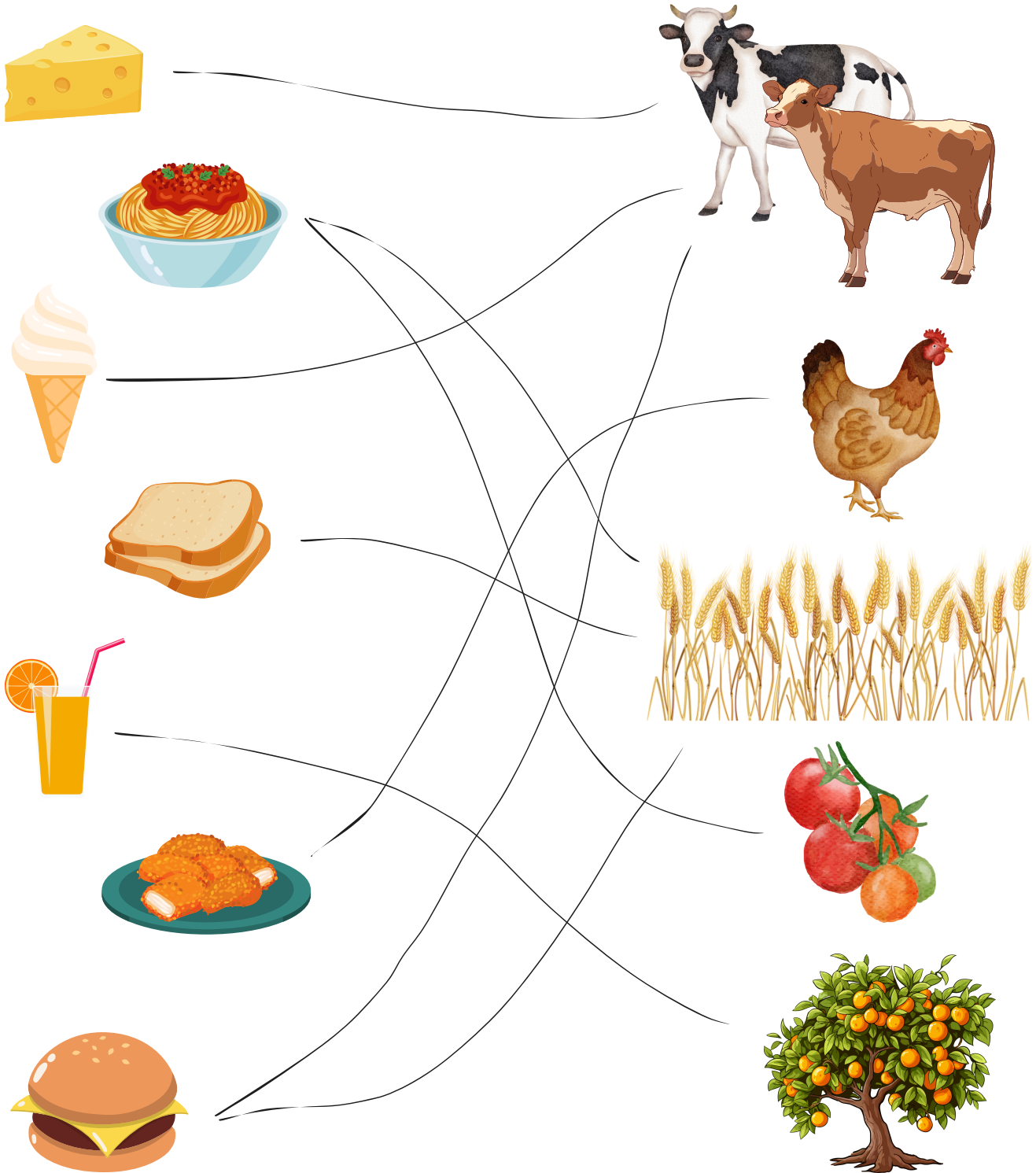
Name: _____

Agriculture in Your Life

Directions: Match the products with their sources. Draw lines to connect the product on the left with the picture (or pictures!) of the product's agricultural source on the right.



Agriculture in Your Life (Answer Sheet)



Name: _____

Agriculture in Your Life

Directions: Place the vocabulary words in alphabetical order under the appropriate topic

Crops

Livestock

Horticulture

Dairy

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Vocabulary Words

- | | | | | |
|----------|-----------|-------------|--------------|---------|
| Apples | Ice cream | Beef cattle | Dairy Cattle | Oranges |
| Butter | Yogurt | Sour cream | Poultry | Nuts |
| Rice | Lettuce | Sheep | Wheat | Cotton |
| Soybeans | Corn | Hogs | Cheese | Berries |

Can you name a type of food that you get from each of these products?







Agriculture in Your Life (Answer Sheet)

Directions: Place the vocabulary words in alphabetical order under the appropriate topic

Crops	Livestock	Horticulture	Dairy
<u>Soybeans</u>	<u>Beef cattle</u>	<u>Apples</u>	<u>Butter</u>
<u>Rice</u>	<u>Dairy Cattle</u>	<u>Lettuce</u>	<u>Ice cream</u>
<u>Corn</u>	<u>Sheep</u>	<u>Oranges</u>	<u>Yogurt</u>
<u>Wheat</u>	<u>Hogs</u>	<u>Nuts</u>	<u>Sour cream</u>
<u>Cotton</u>	<u>Goats</u>	<u>Berries</u>	<u>Cheese</u>

Vocabulary Words

Apples	Ice cream	Beef cattle	Dairy Cattle	Oranges
Butter	Yogurt	Sour cream	Goats	Nuts
Rice	Lettuce	Sheep	Wheat	Cotton
Soybeans	Corn	Hogs	Cheese	Berries

Can you name a type of food that you get from each of these products?



Bacon, pork chops, etc.



Popcorn, tortillas, etc.



Bread, noodles, etc.

Lesson 2

Objective: In Lesson 1, students made connections between their favorite meal and its ingredients' origins on a farm. In this Lesson, students will trace the food from its farm origins to the dinner table. They will learn basic supply chain terminology, and enact a global supply chain in this interactive lesson.

Background: Under an ever-growing global food system, there are multiple steps in which food goes through – traveling hundreds if not thousands of miles – before it reaches our kitchen tables. Under the global food system, the farmer receives only a fraction for every dollar spent on food. The rest of the money pays for labor, packaging, transportation, retail, and other costs associated with food production and distribution. In this lesson, students will be introduced to the concept of a global supply chain

Materials Needed:

- Supply Chain Handout (3 pages: 'A Global Supply Chain', 'Supply Chain Vocabulary', and 'Your Supply Chain Story')
- Toy cow
- Paper cutout or toy ground beef
- \$10 in \$1 bills

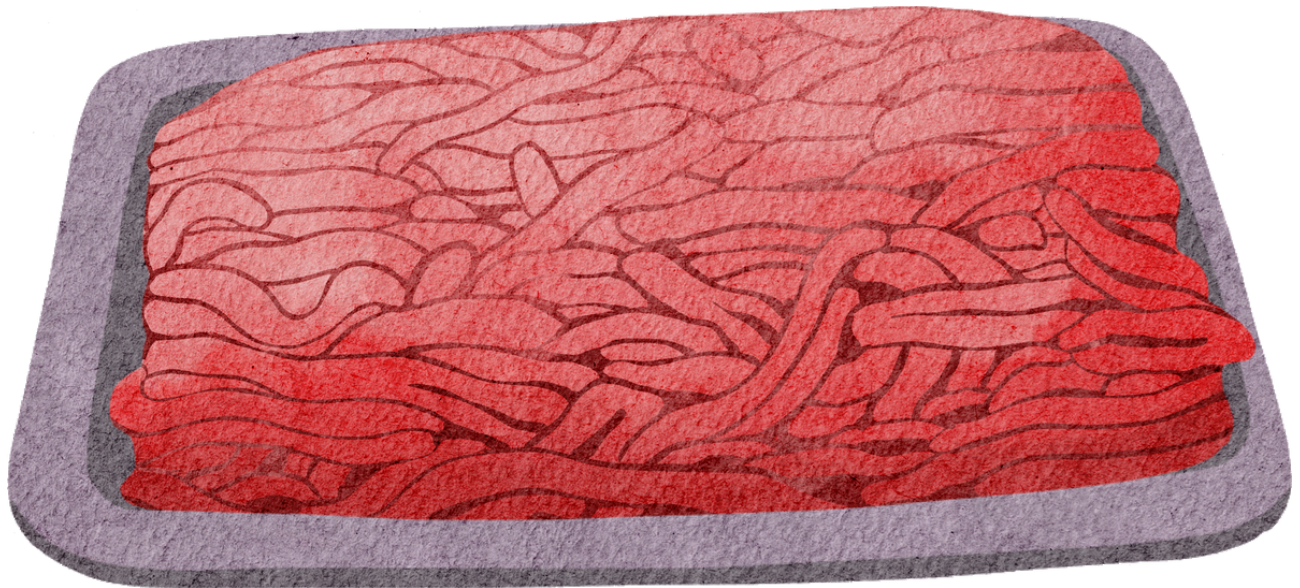
Lesson Plan:

1. To introduce students to the idea of a supply chain, start by asking the class how ground beef gets to the grocery store. This may take some prompting, with guided questions such as:
 - a) Who brings the meat into the grocery store? It's not the farmer... (Answer: Distributors)
 - b) This beef came from somewhere else, because we don't have any cows in our neighborhood. So how did it get here? (Answer: transporter)
 - c) It wasn't always in a package. Beef is made from what? (Cows). So someone had to turn the cow into a package of beef. (Answer: processors)
 - d) But the processors didn't raise the cow – who did? (A farmer / rancher).
2. After this guided, introductory discussion, give students the *supply chain handout*. This handout has three exercises:
 - a) First, students will be instructed to label the order in which food travels through the supply chain.

- b) Next, students will be instructed to define the vocabulary words 'producer', 'distributor', 'transporter', 'consumer', 'grocer', and 'processor'.
- c) Finally, students will be instructed to write a short story about their favorite food's journey through the supply chain using each of the vocabulary words.

3. Now it is time to enact a global supply chain.

- a) Select six students to represent the following: producers, processors, transporters, distributors, grocers, and consumers. Put the consumer, grocer, and distributor on one end of the classroom, and the transporter, processor, and producer at the other end. Give the toy cow to the farmer and the ground beef to the processor.
- b) Starting with the farmer, have the six students enact what they learned about the supply chain (the farmer should hand over their cow to the processor, who in turn hands the ground beef to the transporter, who will walk across the room and hand it to the distributor, who will hand it to the grocer, who will hand it to the consumer).
- c) After this exercise, ask the classroom what the consumer didn't do (they should point out that the consumer didn't pay for their meat!) Tell the classroom they are going to re-do the enactment, but this time with money, because everyone in this process needs to make some money, right? Instead of resetting the enactment, the students will work backwards. Give the ground beef to the grocer, and give \$10 to the consumer. You do not need the toy cow for this.
- d) Tell the consumer to purchase the beef for \$10, and then instruct each of the other participants to hand the money down the line, each taking \$2 for their work.
- e) Finally, the remaining \$2 will get to the farmer. Ask the classroom how much money the farmer got and whether they think it is fair.
- f) After discussing, ask the classroom if they think there is another way they could get their food so that the farmer makes more money. This discussion will lead into Lesson 3.



Name: _____

Supply Chain Handout

A Global Supply Chain

Directions: Label each picture with a number (1-6) based on the order in which food travels through the supply chain

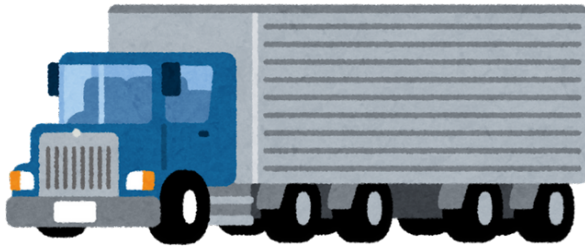
Producer: _____



Distributor: _____



Transporter: _____



Consumer (you!): _____



Grocer: _____



Processor: _____



Name: _____

Supply Chain Handout

Supply Chain Vocabulary

Directions: Producers, Processors, Transporters, Distributors, Grocers, and Consumers are all descriptions of people. What do each of these people do in the supply chain?

Producer:

Processor:

Transporter:

Distributor:

Grocer:

Consumer:

Name: _____

Supply Chain Handout

Your Supply Chain Story

Directions: Write a story below about the journey of your favorite food through the supply chain. In this story, you must include all of these vocabulary words:

1. Producer
2. Processor
3. Transporter
4. Distributor
5. Grocer
6. Consumer

Lesson 3

Objective: Students will be able to compare and contrast a global supply chain with a local supply chain, and explain why local supply chains are beneficial to farmers.

Background: In Lesson 1, students learned about where their food comes from. In Lesson 2, students learned about the supply chain, its terminology, and what this looks like in a global context. In this lesson, students will learn how a local supply chain differs from a global supply chain. This lesson will prompt students to think about the problems with the standard supply chain system by comparing farmers' profit margins when selling in a global food system versus a local food system.

Materials Needed:

- Toy cow
- Paper cutout or toy ground beef
- \$10 in \$1 bills
- "Local vs. Global" handout

Lesson Plan:

1. Invite the 6 students from Lesson 2 to stand in front of the class with their labels.
2. Pose a question to the class: "if we want to support the farmer, and have them make more money, what could be done differently in this process?" Guide the students to consider removing parts of the supply chain: the grocer, transporter, and distributor may not be necessary if farmers sell directly to consumers, for example. (They may have already come up with this idea at the end of Lesson 2).
3. Once the students have removed parts of the supply chain, challenge students to repeat the process in Lesson 2 with their new supply chain: the farmer hands the cow to the processor > processor hands beef back to farmer > farmer hands beef to consumer.
4. Ask the class what was different about this process. Did they like it better? Why or why not? Challenge students to consider the following:
 - a) Consumers can meet the people who grow their food. Why is this a good thing?
 - b) Food doesn't have to travel as far or take as long to get to the consumers. Why is this a good thing?
5. Continue with this new local supply chain and trace the money: hand the \$10 to the consumer and the beef to the farmer. Tell the consumer to purchase the beef for

\$10, and then instruct each of the other participants to hand the money down the line, each taking \$2 for their work. Students may notice that the farmer has two roles in this chain: first, taking the \$10 from the consumer, and then taking the leftover money back from the processor.

6. Ask students how much the farmer made in this process (they made \$8 out of the \$10 dollars, versus the \$2 out of \$10 in the first part). Now pose the question to the class again: do you like this process better? Why or why not?
7. Provide students with the “Local vs. Global” handout to complete individually; group discussion is encouraged after completion.

A field trip to a farmer’s market would be an apt addition to this lesson plan so that students can see for themselves what a local supply chain looks like. Alternatively, consider inviting a local farmer who sells via farmers markets, CSAs, or co-ops to come speak to the class.

Name: _____

Local vs. Global Handout

Local vs. Global

Buying local foods means buying food that is produced as close to your home as possible. Did you know that in the United States, the ingredients for an average meal travel 1,500 miles from the farm to your plate? Directions: fill in the blanks with either 'local' or 'global'.

1. _____ foods are more nutritious. Foods transported short distances and kept on shelves for only a short time contain more nutrients and fewer preservatives than foods that travel long distances.
2. _____ supply chains require more packaging, because the food is shipped from long distances. When you buy _____, you help to eliminate this waste.
3. The _____ supply chain relies on a large volume of oil to transport food. This reliance on fossil fuels for transportation means increased air pollutants.
4. Buying _____ helps the family farmer: they receive more profit from their sales because they can cut out the 'middle men' and sell directly to consumers.
5. Family farmers struggle to stay in business, in part because farmers are receiving less and less profit for what they produce. If you want to support a small family farm, you should buy _____.

Directions: Explain below how buying local foods can help your community and the farmers in your community.