



Lesson 5 of 8

Careers with Plants: Supply Chain

Created: 06/2025 by the National FFA Organization

Description of Lesson: *In this lesson, students will learn about the agricultural supply chain, which connects plant production to consumption. They will explore the key stages of the supply chain, from production to distribution and retail, while examining the variety of careers that exist within each stage. The lesson includes interactive activities that help students understand the flow of products through the supply chain and the skills required for careers in logistics, distribution and retail.*

Student Learning Objectives:

After completing these activities, students will ...

1. Analyze the stages of the agricultural supply chain from farm to consumer.
2. Identify key careers involved in the plant supply chain (e.g., logistics coordinator, supply chain manager, transportation specialist, retail manager).

Suggested Grade Level:

Grades 9 and 10 (This lesson is written so instructors can scale up or down based on class needs.)

Suggested Time: 100 minutes (*Time requirements may vary based upon student understanding and class schedule.)

Resources/References:

1. Website: AgExplorer (2023), AgExplorer.FFA.org

Related Resources:

1. AgExplorer Implementation Guide, <https://FFA.box.com/s/w3o6ep5l2509qtwlfsgrkc7l8o3d143m>
2. Who is Syngenta? <https://FFA.box.com/s/rnlaabyi6ndcils1lmp4x4ewk340j>

Equipment and Supplies Needed:

1. A copy of the "Supply Chain Challenge" worksheet for each student
2. A copy of the "[Supply Chain Career Cards](#)" cut out ahead of time, one card per student
3. A copy of the "[Supply Chain Relay Race Challenge Cards](#)" cut out ahead of time, placed at each station
4. A copy of the "[Supply Chain Relay Race Cards](#)", one set hung up around the classroom or gym
5. A bean bag or small ball, one per group for Station 1
6. A bucket or hula hoop for Station 1
7. A piece of paper or cloth for Station 2
8. Sticky notes for Station 2
9. Blindfold, one per group for Station 3
10. Cones or tape for the course in Station 3
11. Plastic spoon, one per group for Station 3
12. Clipboard, tray or plate, one per group for Station 4

Vocabulary:

1. Distribution
2. Logistics

Name: _____

3. Supply chain

Cross-Curricular Connections:

English/Language Arts

Research careers and the role they play in the supply chain.

SAE and FFA Connections

1. Agronomy CDE, [FFA.org/participate/cdes/agronomy/](https://ffa.org/participate/cdes/agronomy/)
2. Floriculture CDE, [FFA.org/participate/cdes/floriculture/](https://ffa.org/participate/cdes/floriculture/)
3. Nursery/Landscape CDE, [FFA.org/participate/cdes/nursery-landscape/](https://ffa.org/participate/cdes/nursery-landscape/)
4. SAE Idea Cards, <https://ffa.box.com/v/saeideacards>

Student Activity Sheets:

Direct access to student activity sheets without lesson plan or answer key for easy upload to a learning management system or printing for classwork.

<https://ffa.box.com/s/hhsbdw2zqimqxhehs0hgbp1dxwwfxs5e> (Word)

<https://ffa.box.com/s/x5getfnpfhlvmr4eu384gamm8of82rvp> (PDF)

https://docs.google.com/document/d/1FmFo_ZB89sI8V2RXDG0DOrbzQUdsALgijaoMr5IrEpg/copy (Google)

These Activities Are Aligned to the Following Standards:

FFA Precept

- FFA.PL-A.Action: Assume responsibility and take the necessary steps to achieve the desired results, no matter what the goal or task at hand.
- FFA.PL-C.Vision: Visualize the future and how to get there.
- FFA.PL-E.Awareness: Understand personal vision, mission and goals.
- FFA.PL-F.Continuous Improvement: Accept responsibility for learning and personal growth.
- FFA.PG-I.Professional Growth: Assume responsibility for attaining and improving upon the skills needed for career success.
- FFA.PG-J.Mental Growth: Embrace cognitive and intellectual development relative to reasoning, thinking and coping.
- FFA.CS-M.Communication: Effectively interact with others in personal and professional settings.
- FFA.CS-N.Decision Making: Analyze a situation and execute an appropriate course of action.

AFNR Cluster Skills

- CS.05. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.

Common Core – Speaking and Listening

- CCSS.ELA-Literacy.SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-Literacy.SL.9-10.2 Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.

Common Core – Science & Technical Subjects

- AG5 Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.

AFNR Career Ready Practices

- CRP.04. Communicate clearly, effectively, and with reason. Career-ready individuals communicate thoughts, ideas and action plans with clarity, whether using written, verbal and/or visual methods.
- CRP.07. Employ valid and reliable research strategies. Career-ready individuals are discerning in accepting and using new information to make decisions, change practices or inform strategies.
- CRP.08. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem.
- CRP.10. Plan education and career path aligned to personal goals. Career-ready individuals take personal ownership of their own educational and career goals, and they regularly act on a plan to attain these goals.

Name: _____

Partnership for 21st Century Skills

- Communication
- Critical Thinking and Problem Solving
- Initiative and Self-direction
- Leadership and Responsibility

Lesson Plan:

1. **Bell Ringer:** Think about the last time you bought produce. Can you trace the journey it took from the farm to your table? What roles might have been involved? Draw a flow chart with each step included from farm to table including a description of what happened at each step and the roles you feel may have been involved.
2. **Introduction:** *The plant supply chain includes all the steps necessary to bring agricultural products from the farm to the end consumer. It involves multiple stages, including production, harvesting, processing, transportation, storage and retail. Many careers contribute to making this process efficient, sustainable and profitable. Today, we will learn about the careers and steps needed for the supply chain to run smoothly.*
3. **Activity:** Each student needs a copy of the worksheet "Supply Chain Challenge."
 - a. **Part 1:** Mapping the Supply Chain
 1. **Step 1:** Create a Supply Chain Map
On a large whiteboard or poster, draw a simple map with the stages of the supply chain listed along the top: Production → Processing → Transportation → Storage and Distribution → Retail.
Under each stage, write a brief description of what happens at that stage (e.g., "Harvesting and packing crops" for the production stage).
 2. **Step 2:** Career Assignment
Provide each student or group with a career card.
Students will read their career cards and decide where they think their career fits into the supply chain. They will then write the name of their career and its description under the appropriate stage on the map.
 3. **Step 3:** Supply Chain Discussion
After completing the map, the class will discuss each career role and its importance in the process. Discuss how these roles depend on each other for a smooth flow of products and why each one is necessary to meet the demands of consumers.
 - b. **Part 2:** Supply Chain Challenge – The "Product Journey" Relay Race
 1. **Step 1:** Divide the class into four to six teams, depending on the number of students. Each team represents one "supply chain" and will have to move a plant-based product through each stage of the supply chain.
 2. Set up "stations" in the classroom or gymnasium that represent each stage of the supply chain.
 3. **Step 2:** Incorporate Challenges
At each stage, students will encounter challenges (to simulate real-world problems). Each group draws a "challenge card" before starting the race that introduces a scenario they need to overcome at a station:
 4. **Step 3:** Debrief
Once all teams have completed the relay race, gather the students and reflect on the experience.
4. **Optional – Extended Learning Opportunities (Not factored into time requirement):**
 - a. Arrange a virtual tour of a warehouse, food processing plant or agricultural farm.
5. **Exit Ticket:** Read an article about supply chain shortages and explain how a delay in one part of the supply chain can affect the rest of the process.

Name: _____

Supply Chain Challenge

Part 1

Directions:

Your first mission is to help build a giant map of the plant and food supply chain. You will figure out where your career role fits and how important your stage is to feeding the world.

Here's what to do:

1. **Get your career card** from your teacher.
2. **Look at the Supply Chain Map** on the board or poster. The five stages are Production → Processing → Transportation → Storage & Distribution → Retail.
3. **Decide where your career fits.**
4. **Write your career and description** under the correct stage on the map.
5. **Answer the questions** on your student activity sheet.



1. Career Role (assigned or chosen): _____

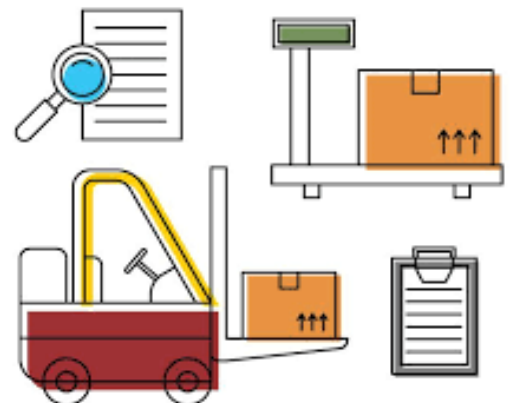
2. Where does your career fit? (Circle it!)

- Production - Processing - Transportation - Storage and Distribution - Retail

3. In your own words, describe what YOUR career does at that stage.

4. Why is your stage a critical mission point in getting food to people?

5. If your stage FAILED, what chaos would happen in the supply chain?



Name: _____

You are tasked with mapping how different agriculture careers fit into the supply chain. Use the stages listed below. Place your assigned career (and others you learn about) into the correct stage. Write the career name under the stage where it belongs. Some careers might fit into more than one stage!

Stage	Careers
Production	
Processing	
Transportation	
Storage and Distribution	
Retail	

Reflection Questions:

1. Why do you think the production stage is so important to the whole supply chain?
2. Which career role would you personally want to explore more? Why?
3. What happens if one stage of the supply chain breaks down?



Name: _____

Part 2

Directions:

Today, you will become part of a real-world supply chain — growing, processing, transporting, storing and selling a product from start to finish.

- Your mission:

Move your team through ALL five stages of the supply chain and draw and complete a challenge at each station before advancing to the next stage. When done, answer the reflection questions below.

Reflection Questions:

1. Which stage of the supply chain was the MOST challenging for your team? Why do you think it was so tough?
2. What challenge or disruption slowed your team down the most? How did you handle it?
3. Describe a moment when your team worked really well together. What made it successful?
4. Imagine you were running a real farm, factory or grocery store. What part of the supply chain would you want to manage? Why?
5. Why do you think it's important for all parts of the supply chain to work together smoothly? Give a real-world example.
6. Why is teamwork important in agriculture and the food system? Give an example from either the mapping activity or the relay.
7. What is one thing you learned today about how food gets from farms to your plate that surprised you?
8. In your own words, finish this sentence:
The supply chain matters because ...

Name: _____

KEY: Supply Chain Challenge

Part 1

Directions:

Your first mission is to help build a giant map of the plant and food supply chain. You will figure out where your career role fits and how important your stage is to feeding the world.

Here's what to do:

1. **Get your career card** from your teacher.
2. **Look at the Supply Chain Map** on the board or poster. The five stages are:
Production → Processing → Transportation → Storage & Distribution → Retail.
3. **Decide where your career fits.**
4. **Write your career and description** under the correct stage on the map.
5. **Answer the questions** on your student activity sheet.



6. Career Role (assigned or chosen): Answers will vary.

7. Where does your career fit? (Circle it!)

- Production - Processing - Transportation - Storage and Distribution - Retail

8. In your own words, describe what YOUR career does at that stage.

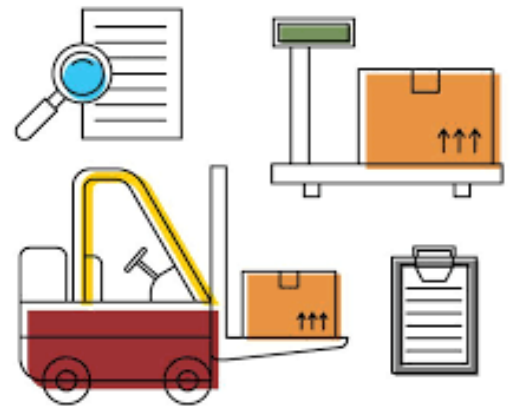
Answers will vary.

9. Why is your stage a critical mission point in getting food to people?

Answers will vary.

10. If your stage FAILED, what chaos would happen in the supply chain?

Answers will vary.



Name: _____

You are tasked with mapping how different agriculture careers fit into the supply chain. Use the stages listed below. Place your assigned career (and others you learn about) into the correct stage. Write the career name under the stage where it belongs. Some careers might fit into more than one stage!

Stage	Careers
Production	Agronomist Seed Production Manager Greenhouse Technician Soil Scientist Plant Geneticist Crop Consultant Hydroponics Producer Plant Breeder Turf Manager Crop Scout Vegetable Grower Tree Farm Manager
Processing	Food Processor Product Development Manager Fermentation Scientist Post-Harvest Technician Organic Certification Specialist Plant Pathologist Entomologist Weed Scientist
Transportation	Truck Driver Agriculture Pilot (Aerial Applicator) Grain Elevator Operator Agricultural Equipment Technician
Storage and Distribution	Storage Manager Distribution Manager
Retail	Grocery Store Manager Florist Landscape Designer Nursery Manager

Reflection Questions:

1. Why do you think the production stage is so important to the whole supply chain?

Answers will vary.

2. Which career role would you personally want to explore more? Why?

Answers will vary.

3. What happens if one stage of the supply chain breaks down?

Answers will vary.



Name: _____

Part 2

Directions:

Today, you will become part of a real-world supply chain — growing, processing, transporting, storing and selling a product from start to finish.

Your mission:

Move your team through ALL five stages of the supply chain and draw and complete a challenge at each station before advancing to the next stage. When done, answer the reflection questions below.

Reflection Questions:

1. Which stage of the supply chain was the MOST challenging for your team? Why do you think it was so tough?

Answers will vary.

2. What challenge or disruption slowed your team down the most? How did you handle it?

Answers will vary.

3. Describe a moment when your team worked really well together. What made it successful?

Answers will vary.

4. Imagine you were running a real farm, factory or grocery store. What part of the supply chain would you want to manage? Why?

Answers will vary.

5. Why do you think it's important for all parts of the supply chain to work together smoothly? Give a real-world example.

Answers will vary.

6. Why is teamwork important in agriculture and the food system? Give an example from either the mapping activity or the relay.

Answers will vary.

7. What is one thing you learned today about how food gets from farms to your plate that surprised you?

Answers will vary.

8. In your own words, finish this sentence:
The supply chain matters because ...

Answers will vary.