



AGEXPLORER AND CULVER'S VIRTUAL FIELD TRIP

EDUCATOR GUIDE – “Fresh Frozen Custard: Careers From Dairy to Dish”

This educator guide accompanies the Fresh Frozen Custard: Careers From Dairy to Dish virtual field trip on AgExplorer. Check out the full virtual field trip [here](#).

OVERVIEW:

Join AgExplorer and Culver's for the latest virtual field trip (VFT), which will take you on a journey from “dairy to dish” as we follow the path Culver's fresh frozen custard takes to get into the hands of their guests. Students will meet team members from Culver's and learn how dairy production, processing, product development and quality assurance, distribution, marketing and communications and restaurant team members are all important in the process of food products being delivered to consumers.

The VFT illustrates a wide variety of entry-level and highly skilled careers that involve the development and production of food products, supply chain logistics and restaurant management. It develops students' awareness of how production agriculture feeds into the product development chain, the importance of food safety and quality assurance, how companies like Culver's deliver supplies and products to various locations, and the strategy that goes into marketing and public relations as well as the skills needed to be successful in the restaurant industry.

This guide has been designed to help educators connect and extend the learning from the VFT to classroom concepts. The guide is designed to be used in one of two ways:

1. Teachers may play the entire VFT first and then complete some or all of the activities with students
2. Teachers may play the VFT one segment at a time and then immediately complete the corresponding activity with students.

STUDENT LEARNING OBJECTIVES:

After completing the virtual field trip, students will ...

1. Examine how various professionals play a role in the production, development, marketing and distribution of food products.
2. Explain the process of how a food product is developed and delivered to consumers.

**Additional learning objectives are included within each activity in the guide.*

SUGGESTED GRADE LEVEL:

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

SUGGESTED TIME:

70 minutes – VFT Only – Additional timelines are included within each activity in the guide.

(*Time requirements may vary based upon student understanding and class schedule.)

EQUIPMENT AND SUPPLIES NEEDED:

1. Internet access to play the videos in real time or embed them in a PowerPoint ahead of time
2. A copy of the “Fresh Frozen Custard: From Dairy to Dish” worksheet for each student
3. Copies of each activity you wish to complete with your students*

**Additional materials are listed within each individual activity in the guide.*



BEFORE THE VIRTUAL FIELD TRIP:

1. Begin the class by playing the “Custard to Counter | Culver’s” video from Culver’s to introduce students to Culver’s and their fresh frozen custard: https://www.youtube.com/watch?v=LNyYfk5_ps4.
2. Have a brief discussion with students about what they saw. Ask students specifically about what steps they saw in that short video and/or what careers they would guess are involved based on what they saw.
3. Explain that we will be taking a deeper dive into the frozen custard development process by going on a virtual field trip to Culver’s!

**Additionally, you may choose to complete the “[What’s The Scoop?](#)” lesson from FFA and Culver’s as a further introduction to this virtual field trip. (This lesson introduces students to the difference between frozen custard and ice cream and has them make and conduct a sensory evaluation of both products.)*

DURING THE VIRTUAL FIELD TRIP:

1. Distribute the “Fresh Frozen Custard: Careers From Dairy to Dish Virtual Field Trip Student Guide” to each student.
2. Play the [AgExplorer and Culver’s Virtual Field Trip](#) for students (or have them watch on their own). While they watch, students should be answering the questions on their worksheets.

AFTER THE VIRTUAL FIELD TRIP:

1. There is one activity for each segment of the VFT. These activities are listed under “Virtual Field Trip Activities” below. Each activity is designed to extend the learning from that segment and have students engage with those careers further.
2. You may choose to complete as many of these activities as makes sense for your classroom.
3. Activities are designed in such a way that you may also play just one portion of the VFT and complete the corresponding activity if you choose to incorporate this as part of your existing curriculum for a specific class (i.e., completing the Marketing and Communications segment with an agribusiness class or the Product Development and Quality Assurance segment with a food science class).

VIRTUAL FIELD TRIP ACTIVITIES:

1. [THE DAIRY FARM](#)

Students will explore the characteristics of dairy cow breeds, determine their suitability for specific climates and investigate careers involved in the journey from “dairy to dish.” They will also design their own “super breed” tailored to specific production and climate challenges.

2. [THE PROCESSING PLANT](#)

Students will explore the critical processes involved in processing to ensure custard is safe to eat, focusing on milk processing and the Hazard Analysis and Critical Control Point (HACCP) system. They will engage in real-world scenarios to identify potential hazards, create a food safety plan, and understand the importance of pasteurization and homogenization in preventing foodborne illness.

3. [THE DISTRIBUTION CENTER](#)

The distribution center is one of the places along the food production chain with the most diversity in careers. From forklift operators to IT professionals to logistics managers, many individuals make these facilities run 24/7. In this activity, students will explore these roles and write a short story about how individuals in these careers help keep the supply chain running.

4. [PRODUCT DEVELOPMENT, SUPPLY CHAIN AND QUALITY ASSURANCE](#)

One of Culver’s signature items is their fresh frozen custard. They put this delicious creation on display daily using their creative “Flavors of the Day.” Have you ever thought about what goes into developing new food products or flavors? In this activity, students will explore the world of product development as they brainstorm unique flavor combinations, identify target audiences and present their ideas to the class.

5. **MARKETING AND COMMUNICATIONS**

Marketing plays a crucial role in connecting businesses to consumers, especially in industries like agriculture where storytelling and advocacy can make a big impact. This activity uses Culver's as a real-world example to explore how effective marketing strategies can promote both products and agricultural awareness.

6. **RESTAURANT CAREERS**

Students will compare job postings for different careers at Culver's. They will also reflect on how their own skills fit into those careers as well as identify agricultural careers that have direct connections with the food service industry.

"FRESH FROZEN CUSTARD: FROM DAIRY TO DISH" STUDENT ACTIVITY SHEETS:

<https://ffa.box.com/s/3zmralfay9z27k49m1m7e330t3zuebdh> (Word)

<https://ffa.box.com/s/jzff8opqcxsvpjt0kytp5fluy4sq2wg9> (PDF)

https://docs.google.com/document/d/1r86D0BL52sh9HO90X_2P55qRNaOUc2UK-Ph5hlcSo7Q/copy (Google)

ADDITIONAL RESOURCES:

1. FFA and Culver's Lesson - "What's the Scoop?", <https://FFA.box.com/v/culvers-whats-the-scoop>
2. Culver's Careers, <https://www.culvers.com/FFA-and-culvers>
3. FFA and Culver's Lesson - Culver's: Our Story, <https://FFA.box.com/s/guttopfzley7rwtjsqjnrh2n3l3vgp5s>

THESE ACTIVITIES ARE ALIGNED TO THE FOLLOWING STANDARDS:

AFNR Performance Element

- FPP.02. Apply principles of nutrition, biology, microbiology, chemistry and human behavior to the development of food products.
- FPP.04. Explain the scope of the food industry and the historical and current developments of food products and processing.

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-H.Social Growth: Successfully interact with others and adapt to various social situations.
- 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.

Common Career Technical Core

- AG1 Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster.
- AG2 Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food, and natural resources (AFNR) in society and the economy.
- AG3: Examine and summarize the importance of health, safety, and environmental management systems in AFNR businesses.
- AG4. Demonstrate stewardship of natural resources in AFNR activities.
- AG5 Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways.
- AG-FD2 Apply principles of nutrition, biology, microbiology, chemistry and human behavior to the development of food products.

- AG-FD4 Explain the scope of the food industry and the historical and current developments of food products and processing.

AFNR Cluster Skills

- CS.01. Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster
- CS.02. Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role of agriculture, food and natural resources (AFNR) in society and the economy.
- CS.03. Examine and summarize the importance of health, safety and environmental management systems in AFNR workplaces.
- CS.04. Demonstrate stewardship of natural resources in AFNR activities
- CS.05. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.

Common Core – Reading: Informational Text

- CCSS.ELA-Literacy.RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- CCSS.ELA-Literacy.RI.9-10.2 Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- CCSS.ELA-Literacy.RI.9-10.4 Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).

Common Core – Writing

- CCSS.ELA-Literacy.W.9-10.2: Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- CCSS.ELA-Literacy.W.9-10.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

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.9-10.1.B Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
- CCSS.ELA-Literacy.SL.9-10.1.C Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
- CCSS.ELA-Literacy.SL.9-10.1.D Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
- 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

- CCSS.ELA-Literacy.RST.9-10.9 By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.

Common Core – Literacy in Science & Technical Subjects: Writing

- CCSS.ELA-Literacy.WHST.9.10.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Common Core – Math Practices

- MP1 Make sense of problems and persevere in solving them.
- MP2 Reason abstractly and quantitatively.
- MP3 Construct viable arguments and critique the reasoning of others.
- MP5 Use appropriate tools strategically.
- MP6 Attend to precision.

AFNR Career Ready Practices

- CRP.02.: Apply appropriate academic and technical skills. Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive.
- 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.05. Consider the environmental, social and economic impact of decisions. Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organizations and the environment.
- CRP.06. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization.
- 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.

Partnership for 21st Century Skills

- Collaboration
- Communication
- Critical Thinking and Problem Solving
- Flexibility and Adaptability
- Implement Innovations
- Information, Communications, and Technology Literacy
- Initiative and Self-direction
- Leadership and Responsibility
- Productivity and Accountability
- Social and Cross-Cultural Skills
- Think Creatively
- Work Creatively with Others

Name: _____

Aligned to the following standards: AG5; AG-FD4; CS.02; CS.05; FPP.04; FFA.PL-A; FFA.PL-C; FFA.PG-I; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.1.C; CCSS.W.9-10.4; CRP.02; CRP.04; CRP.07;

Fresh Frozen Custard: Careers From Dairy to Dish

Culver's Virtual Field Trip Student Guide

Directions:

As you watch the AgExplorer and Culver's virtual field trip, follow along with this guide and answer the questions for each segment.

The Dairy Farm:

1. How much milk can a healthy dairy cow produce each day?
 - a. About how many scoops of frozen custard would that make?
2. About how long does the milking process take at this dairy farm?
3. What do dairy cows eat?
4. Why is it important for dairy farmers to clean and disinfect the cows' udders and the milking parlor?
5. What role does the livestock veterinarian play on the dairy farm?
6. What do you think the most interesting part of being a dairy farmer would be?

The Processing Plant:

1. What is the first step when the milk arrives at the processing plant? Why is this a crucial first step?
2. Briefly explain Culver's food safety incident management program and why it's important.
3. What does the quality management system at the processing plant ensure?



4. What do pasteurization and homogenization do to the milk?
 - a. Pasteurization:
 - b. Homogenization:
5. What are two important skills for individuals who are involved in the creation of the frozen custard base at the processing plant?
 - a.
 - b.
6. What is the importance of the quality manager's role in the production of Culver's fresh frozen custard?

The Distribution Center:

1. What are two examples of technology that distribution professionals work with?
 - a.
 - b.
2. In a two or three sentences, describe what happens at a distribution center. Why are distribution centers important?
3. Why is cold storage particularly critical for the distribution of fresh food products like frozen custard?
4. What are three different careers available at distribution centers? Briefly explain the role of each.
 - a.
 - b.
 - c.
5. How has technology changed how distribution centers operate? What impact has that had on the process?



Product Development, Supply Chain and Quality Assurance:

1. What are three important attributes for someone who is interested in a career in food product development?
 - a.
 - b.
 - c.
2. What is one consideration product developers must think about when creating new products for a system as large as Culver's?
3. What role does a purchasing manager play in the product development process?
4. What is a major challenge for individuals working with food products?
5. What kinds of education are helpful for individuals working in this space? Why?
6. What is the average timeline between developing a new product and that product being sold in the restaurants?
7. What advice did Doug give for individuals wanting to get involved in the food industry?

Marketing and Communications:

1. How far in advance are Culver's marketing campaigns worked on?
2. How does the marketing team help influence what goes on the menu?
3. What are two skills that are valuable for a career in marketing? Explain how each is valuable.
 - a.
 - b.
4. What is the main goal of a public relations professional?



5. How does Culver's tie in their support of agriculture to their marketing and public relations?
6. What advice did Alison give to students preparing for a career path?

Restaurant Careers:

1. Where is the original Culver's located? When did Culver's open?
2. Describe two differences between ice cream and frozen custard.
 - a.
 - b.
3. After listening to Eileen and Richie's stories, what can you infer about the opportunities for career development and advancement at Culver's?
4. What is unique about the owner-operator role at Culver's?
5. What skills does Richie suggest for individuals looking to work their way up to being an owner-operator?
6. How do local Culver's restaurants work with the FFA chapters in their communities?

Reflection Questions:

1. What surprised you most about the careers involved in the "dairy to dish" journey of Culver's fresh frozen custard?
2. Where do you see the most opportunity for a future career within the chain followed by the virtual field trip?
3. How can you best begin preparing for any of the careers you learned about?

Name: _____

Aligned to the following standards: AG5; AG-FD4; CS.02; CS.05; FPP.04; FFA.PL-A; FFA.PL-C; FFA.PG-I; CCSS.ELA.SL.9-10.2; CCSS.ELA.SL.9-10.1.C; CCSS.W.9-10.4; CRP.02; CRP.04; CRP.07;

KEY: Fresh Frozen Custard: Careers From Dairy to Dish

Culver's Virtual Field Trip Student Guide

Directions:

As you watch the AgExplorer and Culver's virtual field trip, follow along with this guide and answer the questions for each segment.

The Dairy Farm:

1. How much milk can a healthy dairy cow produce each day?
Over six gallons per day
 - a. About how many scoops of frozen custard would that make?
About 96 scoops
2. About how long does the milking process take at this dairy farm?
It takes around three hours.
3. What do dairy cows eat?
A balanced diet of hay, silage and grains
4. Why is it important for dairy farmers to clean and disinfect the cows' udders and the milking parlor?
It helps prevent diseases such as mastitis and maintains a hygienic environment for a stable milk supply.
5. What role does the livestock veterinarian play on the dairy farm?
The vet checks on newborn calves, provides healthcare to the herd and assists in regulatory compliance such as food safety and environmental compliance.
6. What do you think the most interesting part of being a dairy farmer would be?
Answers will vary.

The Processing Plant:

1. What is the first step when the milk arrives at the processing plant? Why is this a crucial first step?
The milk is tested, unloaded and stored at the proper temperature. This ensures only quality milk that is not contaminated is entering the supply chain.
2. Briefly explain Culver's food safety incident management program and why it's important.
It helps track food and quality issues across all 900+ restaurants.
3. What does the quality management system at the processing plant ensure?
It guides what, how and when they do things to ensure they are producing a safe and quality product and not moving contamination around.

4. What do pasteurization and homogenization do to the milk?
 - a. Pasteurization: Gently heated to a precise temperature to kill bacteria but preserves the flavor to ensure it is safe for human consumption
 - b. Homogenization: Breaks down and evenly distributes fat particles throughout the milk and contributes to the smooth, creamy texture
5. What are two important skills for individuals who are involved in the creation of the frozen custard base at the processing plant?
 - a. Attention to detail
 - b. Technological expertise to operate equipment
6. What is the importance of the quality manager's role in the production of Culver's fresh frozen custard?

Creation and management of processes that allow the frozen custard to be produced safely

The Distribution Center:

1. What are two examples of technology that distribution professionals work with?
 - a. Advanced barcode scanners
 - b. Inventory management systems
2. In two or three sentences, describe happens at a distribution center. Why are distribution centers important?

Answers will vary.
3. Why is cold storage particularly critical for the distribution of fresh food products like frozen custard?

Food products are very sensitive. A small fluctuation in temperature anywhere along the chain could cause spoilage of fresh food products.
4. What are three different careers available at distribution centers? Briefly explain the role of each.
 - a. Answers will vary.
 - b. Answers will vary.
 - c. Answers will vary.
5. How has technology changed how distribution centers operate? What impact has that had on the process?

Orders used to be fulfilled by hand and are now filled by robots or advanced scanning. Far fewer mistakes are made now as opposed to how it used to be.



Product Development, Supply Chain and Quality Assurance:

1. What are three important attributes for someone who is interested in a career in food product development?
 - a. Likes food
 - b. Willingness to try new and different things
 - c. Knowledgeable about food flavors (sweet, salty, acids, bases, etc.)

2. What is one consideration product developers must think about when creating new products for a system as large as Culver's?

They have to think about how the recipe will scale from small batches up to larger batches.

3. What role does a purchasing manager play in the product development process?

They source ingredients and work with suppliers for the ingredients needed.

4. What is a major challenge for individuals working with food products?
Some products have a very short shelf life and supplies must be accurate in order to have enough ingredients but not waste them.

5. What kinds of education are helpful for individuals working in this space? Why?

Math, science, business and communications courses. ("Why" answers will vary.)

6. What is the average timeline between developing a new product and that product being sold in the restaurants?

A year and a half to two years

7. What advice did Doug give for individuals wanting to get involved in the food industry?
Get a job in a restaurant and start gaining experience, always be a learner

Marketing and Communications:

1. How far in advance are Culver's marketing campaigns worked on?

Eighteen months to two years

2. How does the marketing team help influence what goes on the menu?

They analyze popular trends and what customers want and work with the chef or culinary agency to develop those new items.

3. What are two skills that are valuable for a career in marketing? Explain how each is valuable.

- a. Networking and making connections: helps to build the brand and connect with customers
- b. Conflict resolution: not everyone will always agree and you must navigate these conversations



4. What is the main goal of a public relations professional?

Ensuring the brand they represent is seen in a positive light.

5. How does Culver's tie in their support of agriculture to their marketing and public relations?

Culver's has the "Thank You Farmers" program and they are helping to connect their guests to the farmers and individuals who are producing their food items. They also work directly with FFA.

6. What advice did Alison give to students preparing for a career path?

Find out what you're excited about and what brings you joy and find experiences within that

Restaurant Careers:

1. Where is the original Culver's located? When did Culver's open?

Sauk City, WI. They opened in 1984.

2. Describe two differences between ice cream and frozen custard.

- Frozen custard has less air and contains eggs.
- Frozen custard is served at 18 to 21 degrees Fahrenheit; ice cream is served at 5 to 10 degrees Fahrenheit.

3. After listening to Eileen and Richie's stories, what can you infer about the opportunities for career development and advancement at Culver's?

Answers will vary.

4. What is unique about the owner-operator role at Culver's?

Owner-operators perform everyday tasks and pitch in to help their teams however they can, including helping clean up the dining room.

5. What skills does Richie suggest for individuals looking to work their way up to being an owner-operator?

Hard work, dedication, strong communication skills, be present and engaged with your team

6. How do local Culver's restaurants work with the FFA chapters in their communities?

They host profit share nights and donate to local chapters.

Reflection Questions:

1. What surprised you most about the careers involved in the "dairy to dish" journey of Culver's fresh frozen custard?

Answers will vary.

2. Where do you see the most opportunity for a future career within the chain followed by the virtual field trip?

Answers will vary.

3. How can you best begin preparing for any of the careers you learned about?

Answers will vary.