UNIT OVERVIEW

Have your students ever thought about the journey food takes before it gets to them? It's like uncovering a hidden treasure map to understand the world of nutrition, agriculture, and culinary wonders! In this 5-lesson adventure, students will explore parts of the intricate food system to gain a new understanding for what's on their plate while crafting their own path to healthy eating.

In this unit, students will dive deep into the world of milk and dairy foods. Going beyond calcium and cheese, students discover sustainable and wholesome eating patterns. This adventure has flexible twists and turns, so make it your own. Just remember, the more you teach in sequence, the more your students will uncover.

Standards <u>Alignment</u> and <u>Rationale</u> for Common Core State, Next Generation Science, Health Education Content, and Agriculture and Natural Resources Pathway Standards.

Lesson

Background

Review background information prior to teaching.

Engage + Explore

Engage students in educational content.

Hands-on Labs

Apply knowledge through hands-on lab activities.

Extension Activities + Career Connections

Extend learning through additional activities and career connections.



Essential Question

What processes occur to get milk from the dairy to you?

Objective

Students will explore the farmto-you process, sustainability, and animal care at a dairy farm.

Nutrition Primer

Key Words

- Byproduct
- Homogenize
- Pasteurize
- Sustainable nutrition
- Upcycle

<u>Lesson I – Engage +</u> <u>Explore Sequence</u>

- Read Dairy Commodity Fact Sheet and complete worksheet.
- 2. **Watch** "Farm to You" (3:51–12:05) and answer provided questions or complete using EdPuzzle.

<u>Lesson I – Hands-on</u> <u>Lab Options</u>

- Build the cow to carton sequence
- Research Dairy Farm Sustainability
- Build a Dairy Farm

<u>Lesson I - Extension</u> <u>Activity + Career Connection</u> <u>Options</u>

- Virtual Dairy Farm Tour: Konyn Dairy Farm
- Research Activity: Dairy Farms and Their Technological Innovations
- Cafeteria Connection: Getting Milk from the Dairy Farm to School
- Career Connection: Careers from Cow to Carton
- Project-Based Learning: Farming for the Future







Lesson

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Hands-on Labs

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Extension Activities + Career Connections

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Essential Question

How are dairy foods made from milk?

Objective

Students will explore how milk is made into other dairy foods.

Nutrition Primer

Key Words

- · Cheese aging
- Curds
- · Dairy products
- · Starter culture
- Whey

<u>Lesson 2 – Engage +</u> <u>Explore Sequence</u>

- I. Test students' dairy IQ.
- 2. **Watch** videos "Making Cheese" (4 ½ minutes) and "How Is Yogurt Made?" (3 minutes).
- 3. Complete worksheet.

Lesson 2 - Hands-on Lab Options

- Taste Cheese
- Make Cheese
- Take the Cheese Snack Challenge

<u>Lesson 2 – Extension</u> <u>Activity + Career Connection</u> <u>Options</u>

- Pair + Share: How It's Made
- Research Activity: International Dairy Food Production
- Marketing Project: Promoting Dairy
- Career Connection: Essential Skills



Essential Question

In what ways are dairy foods versatile in recipes, snacks, or meals?

Objective

Students will explore the flavor, variety, and versatility of milk and dairy foods and how dairy is enjoyed around the world.

Nutrition Primer

Key Words

- Fermentation
- · Food culture
- Lactose
- Mouthfeel
- Probiotics

<u>Lesson 3 – Engage +</u> <u>Explore Sequence</u>

- I. **Complete** Know, Wonder, Learn Table using the following sources:
- Read "The Science Behind Cooking with Dairy."
- Watch "How Are Dairy Foods Enjoyed around the World?" (3 minutes).
- View "Explore California Dairy Diversity."

Lesson 3 - Hands-on Lab Options

- Taste Yogurt
- · Make a Yogurt Dip
- Make Yogurt

<u>Lesson 3 – Extension</u> <u>Activity + Career Connection</u> <u>Options</u>

- Pair + Share: Food Culture
- Marketing Project: Recording a Recipe
- Cafeteria Connection: Taste Test
- Career Connection: Future Career Exploration





Lesson

Background

Review background information prior to teaching.

Engage + Explore

Engage students in educational content.

Hands-on Labs

Apply knowledge through hands-on lab activities.

Extension Activities + Career Connections

Extend learning through additional activities and career connections.



Essential Question

What types of food work together to support health, growth, learning, and performance?

Objective

Students will explore the food groups in USDA's MyPlate that are part of a healthy eating pattern and school meals.

Nutrition Primer

Key Words

- Food group
- · Food synergy
- · Healthy eating
- Nutrient
- · Quality foods

<u>Lesson 4 – Engage +</u> <u>Explore Sequence</u>

I. **Read** the slides and complete the activities in "How Can You Build Your Plate?"

Lesson 4 - Hands-on Lab Options

- Taste Milk
- Make a Milk Beverage
- Complete the Know Your Milk Activity

Lesson 4 - Extension Activity + Career Connection Options

- Career Connection: Dietitian Nutritionist Spotlight
- Social Media Connection: Evaluating Nutrition Facts
- Cafeteria Connection: School Meal Design
- Research Activity: Beverages
- Research Activity: Nutrients



Essential Question

How do the connections between the dairy industry, sustainability, nutrition, culinary arts, and school meals contribute to a holistic understanding of the food system?

Objective

Students will establish links between the dairy industry, sustainability, nutrition, culinary arts, and school meals.

Nutrition Primer

Key Words

- Adaptability
- · Critical thinking
- · Cultural sensitivity
- Networking
- Resilience

<u>Lesson 5 – Engage +</u> <u>Explore Sequence</u>

- I. Create a mind map.
- 2. **Make** a knowledge poster.

<u>Lesson 5 – Hands-on</u> <u>Lab Options</u>

- Make a Celebratory Dairy Dessert
- Compete in a Master Chef Dairy Challenge

Lesson 5 - Extension Activity + Career Connection Options

- Career Connection: Job Interview Contest
- Group Discussion: Teamwork Skills
- Career Connection: Resume Creation
- Cafeteria Connection:
 Making a Smarter Lunchroom



