

Dairy During Your Day!

Dear Educator,


If you say the word “dairy” to your students, they’d likely connect it to milk, their favorite dairy products, and cows — and they could probably spend a class period telling you about their favorites. Are they also familiar with dairy farming and how dairy products get to local communities?

In this free educational program developed by Dairy Farmers of Wisconsin and the curriculum specialists at Young Minds Inspired, students will learn about dairy as a nutritious food source that can be integrated into meals throughout the day. Students will explore various aspects of dairy farming that help bring us these nutritious foods — from raising healthy cows, to helping conserve water, to inspiring farm-to-table trends that all families can enjoy. The activities will complement your ELA and health curricula.

Please share these materials with other teachers in your school. Although the materials are copyrighted, you may make as many copies as needed for educational purposes. Please comment online at ymiclassroom.com/feedback-WisconsinDairy to provide feedback. We look forward to hearing from you.

Sincerely,
Youth and Schools Team at
Dairy Farmers of Wisconsin

Dr. Dominic Kinsley
Editor in Chief
Young Minds Inspired

 For questions, contact YMI toll-free at 1-800-859-8005 or by email at feedback@ymiclassroom.com.



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Target Audience

Grades 2-4

Program Objectives

- Raise awareness about the nutrition found in various dairy products
- Inspire students to make healthy food choices
- Introduce the concept of farm-to-table meals
- Explore the impact dairy farming management practices have on the environment and community

Program Components

- This one-page teacher's guide
 - Three reproducible activity sheets
- These components are also available at ymiclassroom.com/WisconsinDairy, along with a standards chart and online feedback form.

How to Use This Program

Photocopy the teacher's guide and activity sheets. Students will need pencils, crayons, or markers to complete the activities.

Visit a Dairy Farm Virtually!

Your students can spend virtual time at a Wisconsin dairy farm to get a firsthand look at how the milk they enjoy is produced. Go to <https://www.wisconsin dairy.org/Youth-and-Schools/Dairy-Education/Farm-Tour> to learn more.



Start Healthy!

In this activity, students will learn about the nutrition in dairy products.

Ask student volunteers to share something about their morning routine. Did they know that cows have a morning routine too? A cow's morning routine includes “making their beds” (their stalls or beds are raked out/cleaned), doing their chores (going to the milking parlor), and eating a nutrient-dense breakfast that enables them to produce nutritious milk that can be made into dairy products like milk, cheese, and yogurt.

Ask students what their favorite breakfast foods are. Then, distribute the activity sheet and review the instructions with the class. Before students do Part 2, explain that milk, yogurt, cheese, and cottage cheese are all dairy products. When students have finished, encourage volunteers to share their breakfast suggestions. **Answers:** Part 1: 1. Protein: yogurt, milk, scrambled eggs; Calcium: yogurt, milk, oatmeal. 2. Answers will vary. 3. yogurt, milk. 4. 8 g protein, 290 mg calcium. Part 2: Answers will vary. The most popular food for cows is GRASS.

To learn more about the nutrients found in milk, visit this **13 Nutrients in Milk** infographic. Explore additional nutrients found in breakfast foods listed to expand the chart.



Water Smarts!

In this activity, students will learn that water is important for good health because it keeps us hydrated. Like humans, dairy cows also need clean water to stay hydrated and to produce milk. For farmers, managing their cows' health includes making sure that they have water to drink.

Distribute the activity sheet and read the introduction with the students. Since milk is mostly water, with the benefit of nutrients that children need, it can help children stay hydrated. Have students work together to complete the math problem



in Part 1. Then have them brainstorm and share ideas on how they can make sure that they are getting enough water daily. Next, have students complete Part 2 and review the answers. **Answers:** Part 1: 128 cups. Part 2 lunch match-ups: 1-Jamie; 2-Emma; 3-Henry; 4-Raul; 5-Bessie

Read the Dairy Farming Fact on the sheet with the students. To learn more about the practices farmers follow to save water and help protect the environment, show students the “How Do Farmers Reuse Water?” video at www.usdairy.com/news-articles/ask-a-dairy-farmer-how-do-farmers-reuse-water. After, have students discuss what they learned about water use on the farm. (Water is used to feed the cows, cool milk, clean equipment/barns, and water crops.) Ask the students if they can apply any of these practices to reuse resources at home.



Healthy Meals!

In this activity, students will learn how milk travels from the farm to students' homes.

Ask students to think about where they get their food. Most will say “the store.” But how does it get from the farm to the store? Explain that when families purchase dairy products, they are supporting the farmers who serve their communities, whether those dairy farms are a few miles away or part of a larger regional service area that can be as far as 400 miles away. In turn, the farmers are providing the kinds of nutrition that members in communities everywhere need, whether rural or urban. To learn more, consider taking your students on a virtual farm tour to see dairy farming in action. See the link below.

Next, ask students to brainstorm foods and vegetables that grow in your area, as well as any local dairy farms.

Before introducing the activity sheet, review the MyPlate guidelines and five food groups with your class: www.myplate.gov/life-stages/kids. Discuss examples for each food group or have older students research the foods. Next, group students into teams of five, distribute the activity sheet, and review the instructions. When done, have students share their meal ideas, or even create menus for a fictional restaurant. **Answers:** Part 1: Answers will vary. Part 2: Sentence order: left to right, row 1: 2, 4, 1; row 2: 5, 3

Resources

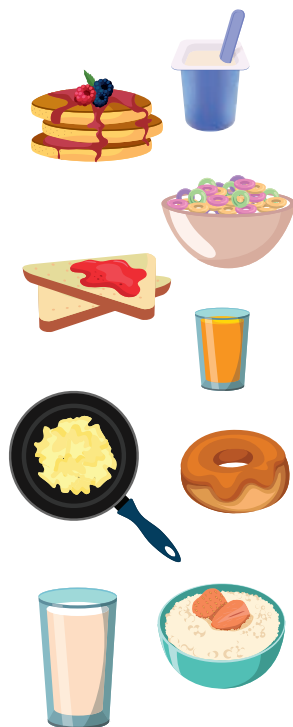
- Dairy Farmers of Wisconsin: [WisconsinDairy.org](https://www.wisconsin dairy.org)
- Virtual Farm Tours: <https://www.wisconsin dairy.org/Youth-and-Schools/Dairy-Education/Farm-Tour>
- MyPlate Guidelines: www.myplate.gov
- Water Conservation: www.usdairy.com/news-articles/ask-a-dairy-farmer-how-do-farmers-reuse-water
- Lessons: ymiclassroom.com/WisconsinDairy
- Farm to Table Dairy Lesson: <https://www.wisconsin dairy.org/Youth-and-Schools/Dairy-Education/Farm-to-Table-Lesson-Registration/Farm-to-Table-Lesson>



Look for the “Dairy Farming Fact” on each activity sheet to learn more about dairy farming.

Start Healthy!

Part 1: Eating a healthy breakfast helps us start our day. Healthy food has nutrients our bodies need, including protein and calcium. Protein helps build and repair our body's tissue and muscles. Calcium helps build strong bones and teeth. Some foods have more nutrients than others. Look at the breakfast foods below. Then use the chart to answer the questions.



Breakfast Foods	Protein*	Calcium*
Pancakes, plain, one 4-inch	2 g	50 mg
Wheat flakes cereal, 1 cup	4 g	20 mg
White bread toast, 1 slice	3 g	60 mg
Oatmeal, 1 packet	3 g	100 mg
Scrambled eggs, 1 large	6 g	40 mg
Yogurt, 6 oz.	9 g	310 mg
Glazed donut, one 3-inch	1 g	10 mg
Orange juice, 4.23 fl oz. box	1 g	15 mg
2% milk, 8 oz.	8 g	290 mg

*Approximate daily nutrient values. Source: USDA nutrient database
<https://fdc.nal.usda.gov/>

1. Which foods in the chart have the highest amounts of protein and calcium? List the top three in each category:

Protein: _____

Calcium: _____

2. How much protein and calcium does your favorite breakfast food on the list have?

3. Foods made from milk are called dairy foods. Which foods on the chart are dairy foods?

4. If you drink an 8-oz. glass of 2% milk at breakfast, how much protein and calcium will you add to your breakfast?



Part 2: Think about your favorite breakfast meals. Or choose from the list at left. How could you improve the meal to start your day in a healthier way? Add a dairy product as part of your daily morning meal. Or substitute one of your food items for a dairy product.

My new breakfast idea:

Dairy Farming Fact!



Dairy farmers make sure cows start their day in a healthy way. It's important for cows to eat a healthy breakfast, too. Cows eat a variety of foods, including grass, grains, cotton seeds, citrus pulp, and corn silage (the whole plant). What do you think is the most popular food for cows? Unscramble these letters to find out!

RSAGS:



Local milk is available 365 days a year.



Water Smarts!

Part 1: Did you know that kids ages 5 to 13 should drink 5 to 8 cups of water a day (you need more as you get older)? Drinks that are mostly water count too. Water helps keep us hydrated. Just like humans, dairy cows also need clean water to stay hydrated and to produce milk.

Milk is actually about 90% water. Milk also has nutrients like calcium, Vitamin D, and protein that help keep us healthy — and hydrated!

A cow produces about 8 gallons of milk a day.
How many cups is that? Here are a few hints:



1 gallon = 16 cups

2 gallons = 32 cups

4 gallons = 64 cups

8 gallons = _____ cups



How can you make sure that you drink enough water every day?



Part 2: It's time for lunch! But there's a problem. The lunch bags are mixed up. Can you figure out who gets which lunch?

Read the names and lunch descriptions on the chart. Then read the clues. When you find a match, go across the name row and down the lunch column. Place a checkmark ✓ in the box where the name and lunch meet. Then fill the rest of the lunch column with Xs. If you can rule out a match, put an X in the box where the name and lunch meet. Be on the lookout — there's one trick here!

Clues

- Jamie is allergic to strawberries.
- Raul does not like hot food for lunch.
- Bessie is a cow.
- Henry doubles up on his dairy at lunch.
- Emma's favorite fruit is bananas.



Lunch 1	Lunch 2	Lunch 3	Lunch 4	Lunch 5
salad apple water milk	turkey sandwich banana water milk	soup yogurt water milk	pasta salad strawberries water milk	grass corn orange pulp water

Raul					
Bessie					
Emma					
Jamie					
Henry					

These kids are having milk and water at lunch. Here's a fun fact: Milk has 13 nutrients we need.



Dairy Farming Fact!

Water is important to dairy farmers. They care about their cows, so they make sure that their cows have plenty of water to drink. They also conserve water because they care about the environment. This means that they don't waste water. Many dairy farmers collect rainwater to use on the farm. They also reuse water. For example, water that is used to chill milk can be used again to feed the cows, clean equipment, and water crops.



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Healthy Meals!

Part 1: It's dinner time! Make a menu with your team. Look at the MyPlate diagram. Each team member should choose a different food group to create a dinner menu.

Which food group did you choose?

Pick a food from that group:

Share your food with your group. Then, write each team member's food choice on the list. Be sure you have all the groups!

Our Meal

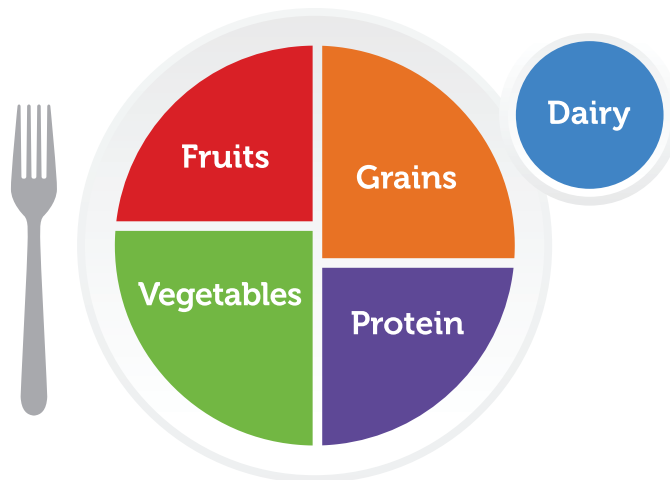
Fruit: _____

Vegetable: _____

Protein: _____

Grain: _____

Dairy: _____



MyPlate.gov

You just created a community meal by working together. How could families enjoy more meals together? Maybe by making a plan to eat together three times a week? By turning off all electronics? Or by cooking together? Write your ideas here.

Part 2: To make a meal, you need groceries or ingredients. You might go grocery shopping with your family to get the foods you need. But have you thought about how the food gets to the store? How does milk get from the dairy farm to your dinner table or school cafeteria? Look at the steps below and number them in order to learn more.



_____ The milk is put into a refrigerated truck and is taken to a processing plant.



_____ Milk containers are taken to a store.



_____ Cows visit the milking parlor.



_____ You and your family can enjoy local milk every day!



_____ The milk is pasteurized and homogenized at a processing plant. Milk can then be packaged into cartons for drinking. Or it can be used to make other dairy products like yogurt and cheese.



Dairy Farming Fact!

Dairy farmers support their communities by making nutritious milk and other dairy products. It takes about 24 to 48 hours for milk to go from the farm to the store shelves, local restaurants, or schools.



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