

Dear Educator,

At school, at home, and in their communities, students are increasingly aware of the importance of caring for the environment and the effects of climate change. But they may not be aware of how local dairy farmers are setting an example for tackling these issues.

This free educational program from American Dairy Association North East (ADANE) and the curriculum specialists at Young Minds Inspired will introduce your students to some of the responsible, sustainable farming practices dairy farmers have adopted to care for the environment, their cows, and consumers. The program features standards-based activities designed to supplement your English language arts curriculum, and each activity includes ideas to extend the learning at home.

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 use the enclosed reply card or comment online at ymiclassroom.com/feedback-adane-howdairycares to provide feedback. We look forward to hearing from you.

Sincerely,



Rick Naczi
CEO
American Dairy Association
North East



Dr. Dominic Kinsley
Editor in Chief
Young Minds Inspired



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



How Dairy Cares

Target Audience

Elementary school students in grades 2-4 and their families

Program Objectives

- Explore dairy farmers' sustainable farming practices
- Raise awareness of the animal-care principles of dairy farmers
- Inspire healthy eating that includes nutritious dairy products
- Support language arts skills

Program Components

- This one-page teacher's guide
- Three reproducible activity sheets
- A classroom wall poster
- Access to Interactive Virtual Farm Tours at www.americandairy.com/dairy-farms/virtual-farm-tours/
- A reply card for your comments, or comment online at ymiclassroom.com/feedback-adane-howdairycares

How to Use This Program

Photocopy the teacher's guide and activity sheets before displaying the poster in your classroom. Have students add their ideas to the poster after completing the activities. To review program alignment with Common Core standards, visit ymiclassroom.com/adane-howdairycares.



ACTIVITY 1

Caring About Cows

In this activity, students will learn that dairy cows are cared for in a way that benefits them, their milk, and the environment.

To introduce the activity, show students pictures of the different cows found at www.americandairy.com/dairy-farms/dairy-cows. Explain that these cows are all found at dairy farms, which provide the milk that local communities rely on for high-quality nutrition. Click on a couple of the cow profiles and read the "fun fact" to students.

Distribute the activity sheet. Have students read the story, answer the questions, and then discuss the answers. Then take a virtual dairy farm tour! You can register for on-demand tours and learn about upcoming events here: www.americandairy.com/dairy-farms/virtual-farm-tours.

Answers: Part 1: 1. 6 hours; 2. 5 minutes; 3. Holstein; 4. 400 glasses;
Part 2: 1. milking parlor; 2. feed; 3. freestall barn; 4. sprinklers

Extension Activity: Have students work in small groups to create "meet a dairy cow" posters, using the information found at the link above.



ACTIVITY 2

Caring About the Environment

In this activity, students will learn that dairy farmers are responsible environmentalists who engage in sustainable farming practices that help their own farms as well as the Earth — including practices that may help fight climate change. (For an overview, share the "Discover Dairy...In Our Environment" video at https://youtu.be/Z-874_l4tCA.)

Divide students into small groups and distribute the activity sheet. In Part 1, have students work together to identify practices they might already do at home that are similar to those done by dairy farmers to help care for the environment. In Part 2, ask students to show what they've learned by creating a comic strip demonstrating how kids and families can care for the Earth.

Answers: Will vary. **Part 1: Conserve Energy:** turn off lights when not in use, open windows and use fans instead of using the air conditioner, turn off computers in the classroom when not in use. **Conserve Water:** turn off the faucet when you brush your teeth; take quick showers; use low-water washing machines and other appliances. **Reduce, Reuse, Recycle:** recycle paper, plastic, and cans; save and reuse cardboard for school projects; use both sides of a piece of paper. **Help Wildlife:** set up a birdfeeder, birdhouse, or birdbath in your yard; plant a butterfly garden. **Protect Waterways:** cover the ground with plants to help stop soil from washing into streams or rivers. **Part 2:** Examples include recycling paper, riding a bike instead of driving a car, using solar or wind energy instead of fossil fuels, replacing plastic bags with cloth bags, and driving electric cars.

Extension Activity: Have students share and/or act out their comic strips for the class. Or put the comic strips together to create a book or digital slideshow that can be shared with students in other classes.



ACTIVITY 3

Caring About Nutrition

In this activity, students learn about the nutrition that dairy products provide and how dairy farmers ensure that consumers can rely on milk and calcium-rich, low-fat dairy foods such as yogurt and cheese for high-quality nutrition.

Distribute the activity sheet. Ask students to listen as you review the correct nutrition pairings (see below), then have students match the items on the sheet. For younger students, you may want to complete the activity as a class.

Part 1: Pairings: 1. **Calcium** helps build and maintain strong bones; 2. **Protein** helps build tissues like your muscles; 3. **Vitamin D** helps maintain a healthy immune system. **Answers: Part 1:** 1-b; 2-c; 3-a. **Part 2:** Children should circle the milk, yogurt, and cheese slices; answers will vary.

Now introduce your students to a dairy farm family. Navigate to www.americandairy.com/dairy-farms/fun-on-farm to learn about dairy farm families. Show the farm video to students and prompt discussion with questions such as "How do you think the family feels about their dairy farm, and why?" Do students think dairy farms are important parts of the community?

Extension Activity: In small groups, have students create a graphic organizer to track the dairy products in a week's worth of school lunches, evaluating the choices offered by reviewing the guidance at www.myplate.gov/. Based on what they have learned, students can suggest ways to provide a wider variety of dairy foods in a mock menu.

Teachers! Support dairy farm sustainability by using CowPots (cowpots.com) for a classroom garden. Made from cleaned, processed cow manure, CowPots can be planted directly in the ground where they slowly biodegrade into fertilizer. Just return the enclosed reply card to be eligible to receive a set of 36 free CowPots, starter seeds, and a gift card for potting soil, while supplies last.



Resources

American Dairy Association North East: americandairy.com

Nutrition: <https://www.usdairy.com/getmedia/0caf28ce-c6ce-4be0-adfd-dbc208f942a3/13-nutrients-in-milk-infographic-2021.pdf>

Lessons: ymiclassroom.com/adane

Caring About COWS



Welcome to Breezyhill Dairy and the Almeter Family in Strykersville, N.Y.!

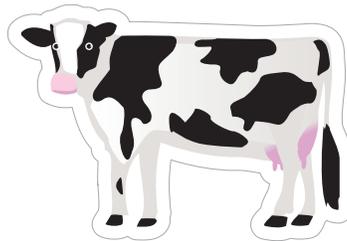
1. Let's take a tour. First, we'll head to the freestall barn to see where the cows live.



2. Did you know that cows spend about 6 hours eating every day? They eat a nutritious mix of grass, grain, and other foods as part of their diet. Sometimes their meals include leftover foods from grocery stores like orange peels. Cow food is called *feed*.



3. Cows can drink fresh water any time they want. When they are tired, they can rest on a soft bed of sand, wood shavings, shredded paper, or water mattresses. Fans and sprinklers cool the barn on hot days.



4. Holsteins, the cows with black spots, are the best-known and most common breed of dairy cows.

5. Now we'll head to the milking parlor. It takes about 5 minutes to milk one cow. They are milked two or three times each day.



6. One cow can provide up to 400 glasses of milk per day — that's a lot of fresh, nutritious milk! After milking, the cows go back to the freestall barn where they can relax and "chow down" some more.



*** 400!**

Part 2: Now show off your vocabulary smarts. Unscramble these dairy terms.

1. **mingilk poalrr**

(where a cow is milked)

2. **defe**

(cow food)

3. **erefstall rban**

(where cows eat and sleep)

4. **krinsprles**

(how cows stay cool)

What did you learn on your tour?



Part 1: Show off your cow smarts. Write the answer on the line.

1. About how many hours a day do cows spend eating? _____

2. About how long does it take to milk one cow? _____

3. What is the best-known breed of dairy cow? _____

4. About how many glasses of milk does a dairy cow provide each day? _____

Families! To learn more about dairy farm families, visit www.americandairy.com/dairy-farms/fun-on-farm/.



Local milk is available 365 days a year.



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Caring About the Environment



Part 1: Dairy farmers help the environment by conserving natural resources, which is good for everyone — including local wildlife. This is called *sustainability*. It includes reducing waste and recycling where possible. Read about sustainability on a dairy farm. Then write about a similar way you can help the Earth at home.

At Fair Hill Farms in Chestertown, Md., dairy farmers reuse the sand bedding that their cows lie on to recycle and conserve natural resources.



Sustainability on the Farm	Sustainability at Home
 <p>Conserve Energy Many dairy farmers conserve energy by using energy-efficient lighting. They also reduce fuel use by using cold well water instead of refrigerators to cool milk and by making fewer trips on their tractors.</p>	<p>Conserve Energy</p>
 <p>Conserve Water Dairy farmers conserve water by recycling it. Water used to cool milk becomes water for the cows to drink.</p>	<p>Conserve Water</p>
 <p>Reduce, Reuse, Recycle Some dairy farmers reduce waste by using washable cloths instead of paper towels to clean cows. Farmers also reuse waste paper as soft cow bedding. And they recycle food waste like orange peels and cotton seeds by adding them to the feed for their cows.</p>	<p>Reduce, Reuse, Recycle</p>
 <p>Help Wildlife Dairy farms often have streams and forests serving as habitats for wildlife that farmers help preserve.</p>	<p>Help Wildlife</p>
 <p>Protect Waterways Farmers cover the ground with plants. The plant roots help keep soil from washing away during storms and harming fish and other stream wildlife.</p>	<p>Protect Waterways</p>



Part 2: Show off what you've learned! Work with a friend to create a comic strip in which you teach kids and families about the ways to care for the Earth — similar to what dairy farmers do. Use the other side of this sheet or separate paper. Fold the sheet into four or six squares to get started.



Dairy farmers like the Almeter family of Breezyhill Dairy in Strykersville, N.Y., grow corn to feed their cows, much like you can grow a garden to feed your family.

Family Gardeners! Take a page from a dairy farmer's book and help the environment at home. Grow plants native to your area, make your own compost, protect storm drains and waterways by keeping trash, leaves, grass clippings, and oil out of them, mulch plant beds, use composted cow manure as fertilizer, and plant cover crops to protect the soil.



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Caring About Nutrition



Part 1: You might enjoy a glass of milk, but how much do you know about the nutrition milk provides? One serving of milk provides many of the essential nutrients your body needs. Listen as your teacher describes milk's nutritional benefits, then write the letter under the milk carton to match each nutrient with how it benefits the body.



1. _____

a. Helps maintain a healthy immune system



2. _____

b. Helps build and maintain strong bones



3. _____

c. Helps build tissues like your muscles

Part 2: Eating balanced meals is important for our bodies. Dairy is part of that! Children ages 4 to 8 should get 2½ cups and children ages 9 to 13 should get 3 cups per day. What foods do you think are part of the dairy group? Circle the dairy foods below.



Look at the dairy foods you circled. Which could you add to your meals to help you get the recommended daily serving? Draw a picture of a different dairy food in each box.

Breakfast

Lunch

Dinner



Families! How can you incorporate more nutritious, delicious dairy products in your diet? As a family, create a meal plan that includes dairy products such as low-fat milk, hard cheeses, and yogurt at every meal.