

Milking Time at the Farm

Written by Mrs. Feltman's & Mr. Leaver's 3rd grade classes, South Kortright School, 2012-2013

Lessons and Activities – GRADE K-5



BIG IDEAS

- Food Systems
- Process and Products
- Change over Time

The hands-on activities for this entertaining song explore the history and process of milk production.

Activity 1 *How Do Farmers Make Milk?* Grades K-2

Through music, read aloud and role play, students learn about the process of making milk and piece together the work of a dairy farmer.

Activity 2 *Who Are Your Farmers?* Grades 3-5

Using maps that illustrate the significant decrease in the number of dairy farms in one town over the last 65 years, students consider the changes in farming, as well as our changing relationship to farms.



Henry, Preston and Anna of Pepacton Farms (Bovina, NY) at the Delaware County Fair. Their cousin Alexis is one of the students whose class wrote the song that goes with these activities.

For more information, or if you experience any problems with downloads, please contact info@harvestofsongs.com.



Milking Time at the Farm

How do farmers make milk?

**Time 60 minutes ,
or two 30-minute sessions**

BIG IDEAS

- Food Systems
- Process and Products

STANDARDS

NYS Science Standards

- LE 1.1a
- LE 3.1a
- PS 4.2a
- PS 2.1a, 2.1c
- LE 6.1a, 6.1c
- LE 7.1a, 7.1c

CCLS

- Literacy.RI.K.10, 1.10, 2.10
- Literacy.W.K.2, 1.2
- Literacy.SL.K.1, 1.1, 2.1
- Literacy.SL.K.3, 1.3, 2.3
- Literacy.SL.K.5, 1.5, 2.5
- Literacy.SL.K.6, 1.6, 2.6
- Literacy.L.2.3

YOU WILL NEED

- Crayons or markers
- Drawing paper
- Audio system to play *Milking Time at the Farm*
- Mini-figures and tools for role-playing: a human figure, a cow, a bucket, grass,
- Book: *Milk: From Cow to Carton*, by Aliko or *The Milk Makers* by Gail Gibbons

Drinking a glass of creamy, cold milk is part of many children's daily routines. This lesson is an investigation into the who, what, where, and how of the process of making milk. Through music, a read aloud, and role play, students will piece together the work of a dairy farmer.

STUDENTS WILL UNDERSTAND

- Food comes from farms.
- We depend on farmers for our food.
- Consuming milk is the result of a process with many inputs.
- People are dependent upon nature for food.

ACTIVITY

1. Listen: *Milking Time at the Farm*
2. Discuss: "What do you imagine is happening in this song?" "What actions take place?" "Who does the action?"
3. Clarify: Hand out drawing paper and crayons. Listen to the song again, prompting the students to draw as they listen, saying, "As you listen to the song one more time, draw what you imagine is happening on this farm."
4. Gallery Walk: Post the drawings around the room to give students a chance to see what other students have envisioned. A Gallery Walk is a silent walk around the classroom during which students look at the group's work. Prompt them saying, "Each of your classmates has his or her own image of the action in this song. Silently walk around the room to see what other students saw." (You may want to quietly play the song again to support this non-verbal process and to set a time frame for the gallery walk.) Ask 3 students to share their thinking with the group.

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Milking Time at the Farm

How do farmers make milk?



ACTIVITY continued

5. Inform: Read aloud a book about the process of making milk. Here are two good ones: *Milk: From Cow to Carton*, by Alikei or *The Milk Makers* by Gail Gibbons.
6. Discuss and Role Play: "What goes into making milk?" As students begin to piece together the process, the teacher "mirrors" the students' responses by role-playing the information given with the mini-figures and tools. Take care to "replay" the students' ideas as expressed—without corrections. Students will fill in the missing parts when they see their ideas re-enacted. Encourage students to take their thinking further by asking questions like, "Who is doing that work?," "Then what does the farmer do?," "What does the cow eat?," and "How does that happen?"

FOLLOW-UP

From the Farm

Find a local dairy farm and schedule a visit. Seeing the work of a cow and a farmer will leave a lasting impression on your students. If a farm trip is out of reach, head out to a local farmers' market. You will likely be able to connect with a dairy farmer there who can answer your kids' questions about milk production.



TEACHER TIP

You will find that your students have a range of prior knowledge about the origins of milk and the process of making milk. Many students know that "milk comes from cows," but have only a hazy notion of what this means. Emphasizing what a farmer does in this process helps students to see the human connection in milk production and begins to uncover the multi-step system that is involved in milk production.

Milking Time at the Farm

Who are your farmers?

Time 45 minutes, with additional research time

BIG IDEAS

- Food Systems
- Change Over Time

STANDARDS

NYS Science Standards

- LE 6.1c, 6.1e
- LE 7.1a, 7.1b, 7.1c
- LE 7.2b

CCLS

- Literacy RI.3.3, 4.3, 5.3
- Literacy RI.3.7, 4.7, 5.7
- Literacy W.3.2, 4.2, 5.2
- Literacy W.3.5, 4.5, 5.5
- Literacy SL.3.1, 4.1, 5.1
- Literacy SL.3.3
- Literacy L.5.1, 5.2
- Math 3.MD.B.3

YOU WILL NEED

- Audio system to play *Milking Time at the Farm*
- Maps of Middletown dairy farms from c. 1950 and today (provided)
- Pencil and paper

Farming is a part of each person's family history. However, the connection between the act of farming and the act of eating has thinned over the years. What are the consequences? What are the causes? This activity begins an investigation into our changing relationship to farms, farmers, and farming.

STUDENTS WILL UNDERSTAND

- Farming is a part of everyone's family history.
- We depend on farmers for our food.
- A single change can have many effects.

ACTIVITY

1. Listen: *Milking Time at the Farm*
2. Discuss: "What do you imagine is happening in this song?" "What actions take place?" "Who does the action?"
3. Think, Pair, Share: Post the 3 following questions on the board: "Who does this action in our world today?," "Do you know any farmers now?," and "When were there farmers in your family?" For 60 seconds, have students silently consider the questions. Then give the students 3 minutes each to share their responses with a partner (6 minutes in total). When sharing in pairs, instruct the students to take the roles of speaker and "open listener." An "open listener" is one who listens with an open mind and does not give any feedback, including any non-verbal cues such as a nod or an "mm-hmm." Finally, reconvene as a whole group and then ask for volunteers to share about their partner's answers to the 3 questions.

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Bovina Center Creamery, 1913

Town of Bovina Historian Image Collection, courtesy of Chuck McIntosh.

Milking Time at the Farm

Who are your farmers?

EXTENSION

Change Over Time

Collect statistics on dairy farms from a wide range of dates before 1950 and between 1950 and today. Create a bar graph of the number of dairy farms visible on each map. "What patterns do you see? Is there a clear trend?" Dig deeper by researching what changes happened in farming and in dairy production since the 1950s that would precipitate these changes.



The last load of milk at the Bovina Creamery, March 31, 1973
Town of Bovina Historian Image Collection,
photo by Mrs. William Elliott.

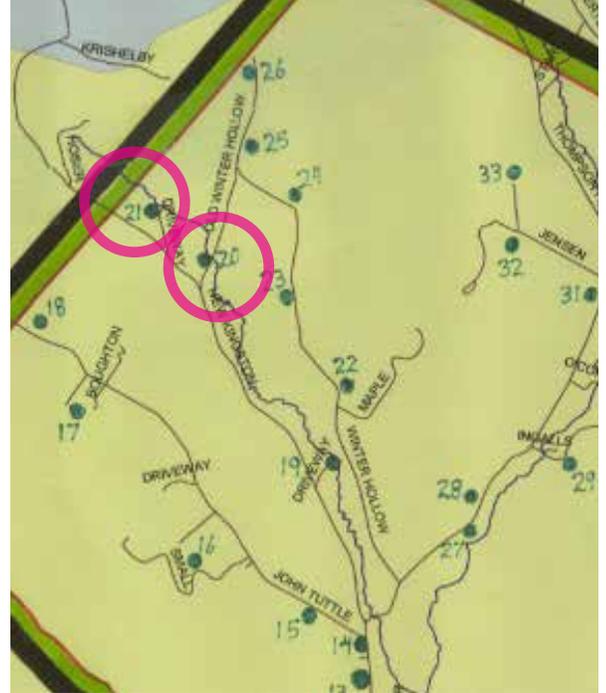
ACTIVITY continued

- Investigate and Theorize: In small groups, students will investigate and consider the information shown on the maps of dairy farming in Middletown. The task is to interpret the maps for someone who hasn't seen it before. In order to do this, students will need to write an Interpretive Paragraph in which they:
 - Describe what the maps illustrate.
 - Compare: Articulate at least 2 similarities and 2 differences between the 2 maps.
 - Clearly state the change over time demonstrated between the 2 maps.
 - State 2 possible theories as to why this change happened.
- Listen and Inquire: Each group will read their Interpretive Paragraphs to the class. After listening to one another, prompt the students, saying: "If you were to meet a dairy farmer today, what would you ask them?" Give the students a few minutes to think in small groups and then collect their questions.
- Connect with an Expert: Track down a regional dairy farmer at a nearby farmers' market or through your regional agricultural council. If possible, arrange for your expert dairy farmer to come to the classroom for an interview. Alternatively, students can write letters to a collection of dairy farmers with their questions.
- Take the Inquiry Home: Students will interview a parent, or any elder, at home. Modify their questions for the dairy farmer or inquire:
 - Where did you get your milk from when you were a child?
 - Who was your dairy farmer? Where did they farm?
 - Who do you know in our family that was a farmer? How long ago was that?



Milking Time at the Farm

Who are your farmers?



This first map shows the location of the 203 dairy farms that existed in the Town of Middletown, NY c.1950. The second image shows the location of the two remaining dairy farms in the Town of Middletown today.

Map created in 2006 by Ira McIntosh and local elders in a project sponsored by the Historical Society of the Town of Middletown

FOLLOW-UP

From the Farm

Find a local dairy farm and schedule a visit. Seeing the work of a cow and a farmer will leave a lasting impression on your students.

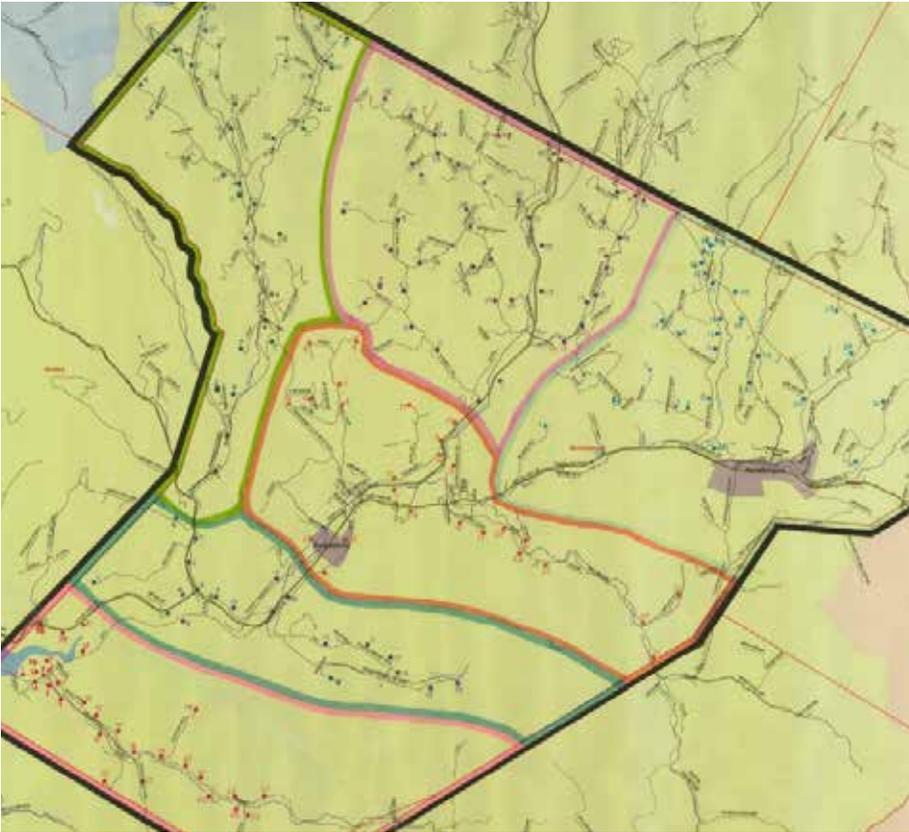
TEACHER TIP

In 1950, the Catskills were a major dairy producing region providing milk, butter, and other dairy products for local consumers and people in the New York City region. Technological innovations, changes in the milk production system, and specialization in farming have contributed to the shift from numerous, smaller farms to fewer, larger dairy farms. While the overall production of milk (per cow and per farm) has increased, the number of dairy farms and cows has decreased.

Note: Many of the 203 farms c. 1950 were subsistence farms, and some may have had as few as 1 or 2 cows. Nonetheless, they were all farms that "shipped milk" off the farm. Today, the 2 remaining farms in the Town of Middletown are milking a total of ~140 cows.

Milking Time at the Farm

Middletown, NY Dairy Farms, c. 1950 and Today



c. 1950 – 203 Dairy Farms



2015 — 2 Dairy Farms

Map created in 2006 by Ira McIntosh and local elders in a project sponsored by the Historical Society of the Town of Middletown