



Lesson One: What is a Farm?
Iowa's Dairy Story
TEACHER LESSON PLAN

Objective:

Children will understand the operation of a Dairy Farm.

Iowa Core Curriculum Met:

Literacy Standard

Content Standard 1: Students can comprehend what they read in a variety of literary and informational text.

Science Standard

Content Standard 2: Students can understand concepts and relationships in life science.

Supplies Needed:

Pretest

Computer(s)

Projector or TV

LEARNING ACTIVITIES:

Activity 1: Pretest

Activity Length: 10 minutes

This will be a test of their knowledge on the subject of dairy. It will be used by Iowa State University Extension to evaluate the effectiveness of this outreach program and to communicate with program sponsors the importance of dairy education in Northeast Iowa. You may use the hard copy or use the online pre- and post-test.

Activity 2: Videos

Activity Length: 10 minutes per Video

Use the information below to introduce the unit, and then show the videos about dairy farming, from the Midwest Dairy Website listed under "People Behind the Product".

Introduction to Unit:

Iowa's Dairy Story Introduction:

Teacher: For the next week or two we are going to be studying about how a dairy farm operates, why dairy farming is so important to our state of Iowa and why eating dairy products is so important for good health. We will also be taking a tour to the Dairy Center that is located south of the Northeast Iowa Community College campus in Calmar to learn more about "Iowa's Dairy Story."

Activity 1: Pretest

- (Pre- and Post-tests are important to the future of the program. We encourage the students to complete the pre- and post-test online. A paper copy option is available.)
- Distribute the pre-test and ask the students to answer the questions as best they can before you start any lessons. Collect the tests and return with the post-test following your participation in the Dairy Center site visit.

Ask the question: What is a farm?

- A. By definition a farm is land that is used to grow crops or raise animals. There are many different kinds of farms, such as crop farms where you grow only crops for example: corn, soybeans, and hay. There are also farms that may have only hogs, or only beef or only dairy. Some have several different kinds of animals. Others live on vegetable farms where they grow fresh vegetables for people to eat.
- How many of you live on a farm?
 - What kind of a farm do you live on?
 - How many of you live on a dairy farm?
 - Those of you that do not live on a dairy farm, have you ever visited one?
- B. Dairy farming has changed over the years. Some of you have probably had great-grandparents who milked their cows by hand and put the milk into metal cans. Today, many farm families have milking parlors where they milk several cows at one time and the milk goes into a large bulk tank.
- C. For the next week or two we are going to be studying about how a dairy farm operates, why dairy farming is so important to our state of Iowa, and how eating dairy products is so important for good health.

Activity 2: Videos

- A. View any or all of the following videos. Videos are in order of importance. Each video is about 5 minutes in length and will give students a taste of the hard work and dedication it takes to keep cows healthy and make a good wholesome product for them to consume. Find the videos on the Iowa's Dairy Story website: <http://www.extension.iastate.edu/allamakee/info/dairystory>.

Video #1 People Behind the Product- Dedicated

1. Discussion on the Video
 - a. How are the farmers protecting the environment?
 - i. Prevent soil erosion
 - ii. Increase organic matter in the soil
 - iii. Water is recycled
 - iv. Manure is used for fertilizer
 - v. Manure is composted and used as bedding for cows
 - vi. Manure is also used for electricity on the farm
 - b. How do they make electricity?
 - i. They heat it up and get methane off the manure
 - c. What is no-till planting?
 - i. Helps to stop soil from moving around
 - d. What are conservation practices?
 - i. They help to save the soil
 - e. What are some examples of conservations practices they do?
 - i. No-till farming
 - ii. Contour farming, farming around the hill
 - iii. Grass waterways
 - f. Why are they careful about what they put in and on the soil?
 - i. Dairy farmers live where they work
 - ii. They want good water and nutrients for their own family
 - iii. They want the farm to be there for generations to come

Video #2 People Behind the Product- Responsible

1. Discussion on the Video
 - a. What is the family's number one goal?
 - i. Milk quality. They want to make sure the milk is safe for people to drink and eat.
 - b. Where do their cows live?
 - i. They live inside and outside depending on cow comfort.

- ii. They want their cows to be very clean.
- c. What happens to cows in their hospital?
 - i. Cows can be treated for simple infections to surgeries.
- d. How do the cows stay clean in the parlor?
 - i. Dipped with teat dip
 - ii. Washed and wiped with a clean cloth that is sterilized
 - iii. Milk is filtered.
- e. How does the milk get cooled?
 - i. Goes through a plate cooler that cools the milk to 50 degrees
 - ii. Then is cooled to 38 degrees in the bulk tanks
- f. How do they earn respect in their community?
 - i. Give tours to school kids
 - ii. Earn respect of the local mayor
 - iii. Run quality operation – quality dairy, product, appearance

Video #3 People Behind the Product- Pride and Passion

1. Discussion on Video
 - a. What is the son going to try for the first time?
 - i. Show calf at the Holstein show
 - b. What is Bryan's (the husband) passion in life? Why?
 - i. Cows and family
 - ii. Wants to make sure the cows are happy at all times, and want to make sure the cows are always comfortable.
 - c. How many cows do they have on their farm?
 - i. 1,000
 - d. How do they keep their cows comfortable?
 - i. Dry spot to lay down
 - ii. Water and feed to eat
 - iii. Sprinkle them with cold water
 - iv. Have fans blowing on them
 - e. What does the Vet do to help on the farm?
 - i. Comes every Monday
 - ii. Reproduction
 - iii. Feet and leg problems
 - iv. Mastitis- which is an infection in the udder
 - v. Helps with the cows health
 - vi. Vaccination program
 - f. Why is it important to have a good relationship with your vet?
 - i. They help you keep your cows healthy
 - ii. Make sure the farmer is producing a good quality product
 - iii. Common goal of helping the cow
 - g. How are calves shown?
 - i. They lead them around with a halter
 - ii. They show the calf off to the judge
 - iii. Cows are judged on their dairy character or the ones that look like they will be the best cows or milk the most.

Applying to Iowa

1. Is a dairy farm in Iowa different than the one in the video? If so, how is it different?
 - a. Iowa dairy farms are smaller. The average Iowa herd is about 100 cows compared to 1000-2000 head in the videos.
2. What are some recycled products we use either on farms or in our homes?
 - a. Shredded newspapers for bedding
 - b. Recycled paper in the form of paper or cardboard