

The Udder Life: Benefits of a Family Milk Cow

A lesson plan for Kindergarten

English, Reading, or Language Arts

21st Century Interdisciplinary Theme: Financial, Economic, Business, and Entrepreneurial Literacy. Global Awareness

By: Mary-Craige Wells of Wells Elementary, Wilson, NC

This lesson utilizes documents from the North Carolina State Government Publications Collection. Ensuring Democracy through Digital Access, a NC LSTA- funded grant project.

Lesson Outcome

This lesson introduces students to farming and dairy cows. Students will be able to distinguish the economic benefits of a family cow both personally and globally.

Teacher Planning

Time required: 4 days

Type of Activity: Hands-on, collaborative, and exploration

Materials/Resources Needed

- Computer with interactive whiteboard along with access to internet
- Website containing document from NC digital library about The Family Cow: <http://digital.ncdcr.gov/u/?p249901coll22,20641>
- Various other materials as explained in lesson

Activity Sequence

Day 1: Begin this lesson by capturing your students' attention through the making of ice cream. Many might think this would be a great extension activity after a lesson, but why not begin with a great hands-on activity to get their minds thinking? I would suggest dividing your class into small groups of 2-3 to complete this activity. This would allow them to take turns "making" the ice cream.

MAKE YOUR OWN ICE CREAM

Materials Needed:

- 1 sandwich size Ziploc style bag
- 1 gallon size Ziploc style bag
- 1 tablespoon sugar
- cup of milk or half & half
- teaspoon vanilla
- Ice cubes
- 2 tbps Rock Salt

In the sandwich size Ziploc bag put the milk, sugar and vanilla and zip closed.

In the gallon size bag, put the sandwich bag, fill with ice cubes about of the way and add the rock salt. Shake and roll the bag over and over for about 15 to 20 minutes. Have the kids do most of the work.

NOTE: This can get messy when the ice starts to melt so it might be best as an outside activity. Be sure to have plenty of bowls and spoons to eat the ice cream when it's finished.

After your students have eaten their ice cream, lead them in a whole group discussion addressing the following questions:

1. What was the main ingredient (the one we used the most of) in the ice cream?
2. Where does the milk come from?
- 3.

Tell your students that years ago families were encouraged to own a family milk cow. Explore the following link from the digital library of NC state documents:

<http://digital.ncdcr.gov/u/?p249901coll22,20641>

Pass out the cow coloring sheet (see attached). You can either have children use this as a coloring sheet or as a sheet to write information on from Zooburst.com. To access the Zooburst book, click on the following link: http://www.zooburst.com/zb_books-viewer.php?book=zb0_4e245d72400db

Day 2: Pose the following question to your students: Is it reasonable to have a family milk cow in today's time?

Record student responses on a simple "yes, no" chart. There is no need to give reasons at this point.

Let them know that today, they are going to "milk a cow." Using a latex glove, fill it with water (mix in a little milk to give it a milky color), knot it closed, and use a pin to poke small holes through the fingers. Children can work in small groups squeezing the "milk" into a bucket. Hopefully they will get a sense that this takes work and time to get the end result.

Come back together as a group to have a class discussion. Go back to the original question, "Is it reasonable to have a family milk cow in today's time?" Discuss the following points:

- need at least 2 acres of land
- need to tend to a cow 2 times per day
- need money to keep a cow fed and healthy

Now go back and see if any of the students want to change their responses on the "yes, no" chart.

Day 3: Come together as a class and inform students that some people go into the business of dairy farming. This is where they can turn a family cow into a CASH COW! Discuss the reasons for owning a dairy farm. Some reasons might include:

- doing something you enjoy
- if you are good at something, you can make money doing it
- there is a demand for dairy products

This would be a good time to watch the following video. It shows a dairy farmer dealing with the demand for milk. <http://www.hulu.com/watch/154084>

Tell the students that today they are going to make butter. Use the attached recipe as a guide. Students can then take home a copy to share with their family. After you have made the butter, ask students if it is easier to go to the market to buy butter? Most should say yes. Make your children aware of how lucky they are to have food readily available in markets and that they don't have it.

Day 4: Today children will make a global connection. As a class, discuss that there are other countries in the world that do not have the same resources as we do. Tell them to think back to all the great things a family cow can provide (refer back to zoobooks.com if necessary). Open up the following PowerPoint to show them about a family that was given a cow in Africa:

http://www.cowfiles.com/resources/ppt/Milk_and_vegetables_assembly.ppt

Lead your students in a discussion about how we can help others. Explore the following website if you would like to make a class donation to another country.

<http://www.cowfiles.com/tag/healthy/>

To wrap up this lesson, students could finish and illustrate this sentence:

Starting with a family cow can change.....

Assessment

A formal assessment is not necessary for this project. The hands-on activities provide for plenty of fun and memories.

Author's Notes

The following websites provide additional activities and games for your students.

- <http://www.simplybovine.com/html/cowgames.html>
- <http://www.moomilk.com/>

North Carolina Essential Standards

K.E.1 Understand basic economic concepts

K.H.1 Understand change over time

Making Homemade Butter

Many of us forget that people couldn't just drive down to the nearest store and buy a stick of butter. People living on farms had to churn their own butter using cream from cows. This recipe will let you actually make butter learn about the old-fashioned way of churning butter.

This activity requires some preparation before hand and will take up to a full hour from start to finish, depending on how fast you churn

Required Materials

For this activity, you'll need some materials from the store. You may already have some lying around your house.

A small jar with lid—a baby food jar will do.

Heavy or whipping cream (1/4 cup)

Salt (just a pinch for taste)

Fast music (for jumping)

Toasted bread (optional)

Plastic knives (optional)

Directions:

1. The old fashion method of churning butter was performed in a tub or barrel and a tall spoon-like pole.
2. Pour 1/4 cup of heavy cream int jar. Add salt if desired. Close the lid securely.
3. Turn on upbeat music and jump around and shake the jar of cream.
4. Shake the jar of cream for at least 15 minutes before cream will begin to solidify. Strain.
5. Spread the homemade butter onto the bread for a well deserved snack.

As stated, adding salt is an option. It does not affect the solidifying of the cream in any way. It will only enhance the taste. Just remember to only use a small amount each time.



Name: _____

