

GEORGIA AG EXPERIENCE

A MOBILE CLASSROOM POWERED BY



LESSON TITLE: “Beef Cattle: Farm to Plate”

Subject: Agriculture – Beef	Grade Level: 3 rd – 5 th grade	Estimated Time: 120 minutes
Resources & Materials: • Life cycle Power Point • Life Cycle Fill in the Blank Worksheet and Answer Key • There’s a Cow in My Marshmallow search and find activity sheet • Poster boards with cow outline drawn on them • Hot glue gun • Empty products containing cow byproducts (such as deodorant, toothpaste, paint brushes, gelatin, etc.)		
Standards: S3L1. Obtain, evaluate, and communicate information about the similarities and differences between plants, animals, and habitats found within geographic regions. S4L1. Obtain, evaluate, and communicate information about the roles of organisms and the flow of energy within an ecosystem. S5L1. Obtain, evaluate, and communicate information to group organisms using scientific classification procedures.		
Learning Objectives: 1. The students will be able to define the cycles a cow goes through from farm to plate individually by creating a graphic organizer within 90% accuracy. 2. The students will be able to determine what byproducts come from cattle in groups on a poster within 95% accuracy.		
Guiding Background Knowledge & Fun Facts: Fun Facts: • More than 98% of a beef animal is used • 60% of a beef animal goes to make products other than meat • One cow can make 18 soccer balls or 20 footballs • Medical products, like insulin and drugs used to help the body accept organ transplants, are made from cattle		

INTEREST APPROACH:

Estimated Time: 5 minutes
What have you used today that contains part of a cow?

You might think I am crazy unless you ate steak or drank milk for breakfast, or maybe you're carrying around a leather bag.

Did you know that we use cows for more than just milk, meat, and leather?

It's true!

Let's go around the room and try to think of things we might have used today that contain some part of a cow.

Today we are going to learn about the process that a cow goes from the farm to our plate, and beyond!

LEARNING ACTIVITY #1: Farm to Plate Presentation

Estimated Time: 40 minutes

Resources & Materials:

- Power Point
- Construction Paper

Vocabulary:

- **Weaning** – when a baby moves from drinking milk from it's mom to other sources of nourishment
- **Grower** – The time of a cows life when they are focused on eating grass and grow
- **Auction** – place where cows are bought and sold
- **Feedlot** – an area or building where livestock are fed or fattened up
- **Packing Plant** – company that processes and packs food to be sold, especially meat

Instructor Directions:

Have students take notes during the presentation:

Slide #1:

Introduction

Slide #2:

Birth – the first part of the life cycle of a cow is birth. A baby cow is called a calf. A calf survives mostly on its mothers milk for the first part of its life.

Slide #3:

Weaning - After a calf reaches about 6 months of age, it will start to be weaned from its mother. This just means the calf can start to eat more grass and grains, instead of only drinking its mother's milk. A calf should be completely weaned from its mother be the time it turns 10 months old.

Slide #4:

Growers – During this stage of the cow’s life, the main goal is to gain weight before it is sold. This means that the cow spends most of its time eating.

Slide #5:

Auction – Once the cow weighs enough, the owner will take it to auction. This is where people can buy and sell cows.

Slide #6:

Feedlot – After the cow is purchased, it gets taken to a feedlot. This is where the cow finishes growing.

Slide #7:

Packing Plant – After a cow dies, it goes through a packing plant. A packing plant is where meat is processed before it goes to the grocery store.

Slide #8:

Retail – When meat gets done at the packing plant, it goes to the grocery store and restaurants. When you go to the grocery store to buy steak for supper, this is considered the retail stage.

Pass out construction paper and show students how to make foldable/graphic organizer (whichever format is easiest for them)

Keep out your notes you took during each life cycle. We are going to create a graphic organizer/foldable to help you study and learn this information. Write the name of each cycle with a brief description about it.

Content/Procedure: Engage, Explore, Test and Improve

Engage:

Students will participate in taking notes during an informative presentation on the life cycle of cattle.

Explore:

Students will learn about each stage of the cattle life cycle through a power point presentation.

Test and Improve:

Students will move on to a fill-in-the-blank worksheet where they will need to apply their newly learned knowledge.

LEARNING ACTIVITY #2: Fill in the Blank Activity for Cattle Life Cycle

Estimated Time: 15 minutes

Resources & Materials:

- Cattle life cycle fill in the blank worksheets
- Pencils

Vocabulary:

Instructor Directions: Pass out Cattle Life Cycle Fill in the Blank worksheet <i>We just learned the life cycle of a cow as it makes its way from farm to plate. Now we are going to spend a few minutes working on a fill in the blank worksheet over the real-world connections to the cycles.</i> <i>You may work individually or in groups and have about ten minutes to complete it before we begin going over it.</i> <i>What questions do you have?</i>
Content/Procedure: Engage, Explore, Test and Improve Engage: Students will participate in a fill-in-the-blank worksheet where they will need to apply their newly learned knowledge. Explore: Students learn the different stages of the cattle lifecycle in a mixed-up order to fully understand what stage of life the cow is in. Test and Improve: Students will move on to creating a poster presentation to show the instructor what they have learned.

LEARNING ACTIVITY #3: There's a Cow in My Marshmallow

Estimated Time: 50 minutes
Resources & Materials: • There's a Cow in My Marshmallow search and find activity sheet • Poster boards with cow outline drawn on them • Hot glue gun • Empty products containing cow byproducts (such as deodorant, toothpaste, paint brushes, gelatin, etc.)
Vocabulary: By-product: something produced in addition to the main product
Instructor Directions:

Now that we know the life cycle of a cow, we are going to learn a little about what comes from a cow. Many things we use every single day have by-products from a cow in them. A by-product is something produced in addition to the main product.

How many of you knew that a marshmallow has part of a cow in it?

Pass out worksheets

We are going through this worksheet together. Once I pass them out, do not start until I tell you to do so.

Go through the worksheet together as a class.

On the worksheet is a cow with a lot of by-products on it. On the sides are the by-products listed under what part of the cow they came from. Let's take turns going around the room until we find each one.

Now that we are finished with that, we are going to split into groups and create our own poster containing cattle by-products. I am going to divide you into 5 groups. Each group will get a poster board with an outline of a cow drawn on it. I have brought some empty items containing cattle by-products from home. Each student will need to come to the front of the room and pick two of them. As a group, you will decide what part of the cow they come from and where they go on the poster. I will come around and check them and glue them down to the poster for you.

Divide students into 5 groups and pass out posters.

Allow students to come up to the front of the room by groups to pick their items.

Content/Procedure: Engage, Explore, Test and Improve

Engage:

Students will take turns searching for and locating different by-products within a worksheet.

Explore:

The by-products find and seek worksheet activity helps students visually recognize items that can come from cows beside meat, milk, and leather.

SUMMARY:

Estimated Time: 10 minutes

So, let's go back to that first question I asked today. What are some things you might have used today that contain parts of a cow?

Let students raise their hands and answer or call on volunteers to answer.

Now, what part of the cow did that by-product come from?

Let students raise their hands and answer or call on volunteers to answer.

Call out the definitions to each part of the life cycle and call on students to tell you which part it was.

What questions do you have about this lesson?

EVALUATION:

Estimated Time: 5 minutes

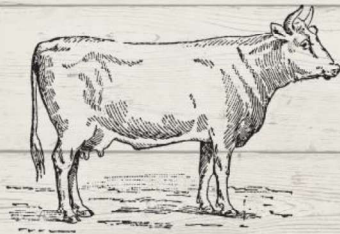
Formative: “Ticket out the door”

On a sticky note, have the students write one thing they used today that contained a cattle by-product. Before they exit the classroom, have them hand it to you or stick it on the board.

Summative: Group poster project

Using the poster they created during Learning Activity 3, have them create a presentation for the rest of the class stating what they used and why, and what part of the cow it came from.

Farm to Plate: Cows



1 Birth

The first part of the life cycle of a cow is birth.

A baby cow is called a calf.

A calf survives mostly on its mother's milk for the first part of its life.



2 Weaning

After a calf reaches about 6 months of age, it will start to be weaned from its mother.

This just means the calf can start to eat

more grasses and grains, instead of only drinking its mother's milk. A calf should be completely weaned from its mother by the time it turns 10 months old.



3 Growers

During this stage of the cows' life, the main goal is to gain weight before it is sold. This means that the cow spends most of its time eating.



4 Auction



Once the cow weighs enough, the owner will take it to auction. This is where people can buy and sell cows.



5 Feedlot

After the cow is purchased, it gets taken to a feedlot. This is where the cow finishes growing.



6 Packing Plant

After a cow dies, it goes through a packing plant.

A packing plant is where meat is processed before it goes to the grocery store



7 Retail

When meat gets done at the packing plant, it goes through to the grocery store and restaurants. When you go to the grocery store to buy a steak for supper, this is considered the retail stage.



Name: _____

Date: _____



CATTLE LIFE CYCLE

FILL IN THE BLANK



Use the word bank below to fill in the correct parts of a cow's life cycle.

birth **packing-plant** **auction**
feedlot **weaning** **growers** **retail**

1. When you go to the grocery store to buy a steak for supper, this is considered the _____ stage.
2. At the _____, buyers decide the price of a cow and it is bought to take to the _____ so it can finish growing.
3. During the _____ stage, a calf is slowly introduced to feed other than its mother's milk.
4. A _____ is where meat is processed before it goes to the grocery store.
5. When a cow gives _____, it produces a calf, or baby cow.
6. The _____ cycle of a cow's life is spent gaining weight by grazing before it is sent off to be sold.

CATTLE LIFE CYCLE

FILL IN THE BLANK

ANSWER KEY

1. When you go to the grocery store to buy a steak for supper, this is considered the **retail** stage.
2. At the **auction**, buyers decide the price of a cow and it is bought to take to the **feedlot** so it can finish growing.
3. During the **weaning** stage, a calf is slowly introduced to feed other than its mother's milk.
4. A **packing plant** is where meat is processed before it goes to the grocery store.
5. When a cow gives **birth**, it produces a calf, or baby cow.
6. The **growers** cycle of a cow's life is spent gaining weight by grazing before it is sent off to be sold.

There's A Cow In My Marshmallow!

Can you find the By-Products?

By-Products From Hide and Hair

Bandball Gloves
Car Upholstery
Drum Heads
Leather Coats
Violin Bows
Shoes
Pet Hair
Goggles
Valves
Leather Watchbands
Rugby Balls



By-Products From Glands and Organs

Aspirin
Cosmetics
Fertilizer
Insulin
Medicines
Paint
Plastic
Soap
Tires

By-Products From Bones and Horns

Bone China
Sax Liners
Photo Keys
Candles
Knife Handles
Vitamin Capsules
Chewing Gum
Lipstick
Whisper Discs
Corn
Photo Film

There's A Cow In My Marshmallow!

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By-Products From Hide and Hair

Bandball Gloves
Car Upholstery
Drum Heads
Leather Coats
Violin Bows
Shoes
Pet Hair
Goggles
Valves
Leather Watchbands
Rugby Balls



By-Products From Glands and Organs

Aspirin
Cosmetics
Fertilizer
Insulin
Medicines
Paint
Plastic
Soap
Tires

By-Products From Bones and Horns

Bone China
Sax Liners
Photo Keys
Candles
Knife Handles
Vitamin Capsules
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Corn
Photo Film