

HARVEST OF THE MONTH - DECEMBER / DAIRY

Preschool



Kansas leads the world in the success of each student.

SEPTEMBER 17, 2024

MISSION

To prepare Kansas students for lifelong success through rigorous, quality academic instruction, career training and character development according to each student's gifts and talents.

VISION

Kansas leads the world in the success of each student.

MOTTO

Kansans Can

SUCCESS DEFINED

A successful Kansas high school graduate has the

- Academic preparation,
- Cognitive preparation,
- Technical skills,
- Employability skills and
- Civic engagement

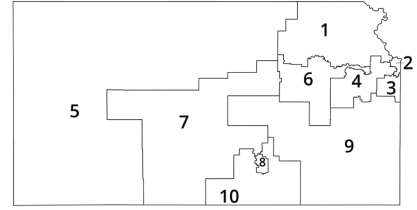
to be successful in postsecondary education, in the attainment of an industry recognized certification or in the workforce, without the need for remediation.

OUTCOMES

- Social-emotional growth
- Kindergarten readiness
- Individual Plan of Study
- Civic engagement
- Academically prepared for postsecondary
- High school graduation
- Postsecondary success



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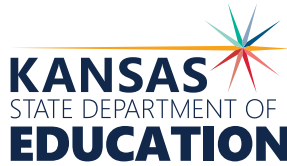


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Kansas leads the world in the success of each student.

Jan. 25, 2024

HARVEST OF THE MONTH

December / Dairy

INTRODUCTION

Over the next few weeks, we will be learning about a kind of food that we harvest in Kansas. I'm going to give you some clues to see if you can guess what this food is.

- This type of food doesn't grow from the ground. These types of food are made from milk. Usually from cows and goats, but sometimes other animals as well.
- This type of food provides our bodies with calcium which helps to make our bones and teeth strong.
- This type of food can include things like milk, whipped cream, yogurt, cheese, butter, and even ice cream!

Can you guess what food I'm talking about? We will be learning about Dairy!



SCIENCE

MAKING BUTTER:

Materials

whipping cream, salt (optional), Jar with screw top lid (you can use glass or plastic and any size that works well for your group—smaller hands may do better with smaller jars), crackers or bread (for tasting the butter on),

Optional-science journals for each student to record observations

Procedure

Fill the jar half full of cream to allow enough space for the butter to form and add a pinch of salt if desired. Screw the lid on tight—You can reinforce with masking tape as a precaution. Ask the children what they notice about the cream using their five senses. Record observations. Ask the children what they think will happen if they shake the cream in the jar. Record predictions. Ask, “Is the cream solid or liquid? How do you know?”

Take turns with the children and shake, shake, shake the jar. The cream will start to get really thick. This is whipped cream. At this point open the jar to let the children see and taste it. Again, ask the children what they notice about the cream using their five senses and record observations. Ask the children to make a prediction of what they think will happen if they continue to shake the cream. Record predictions.

Place the lid back on and continue to shake. You will know the butter is forming when you can hear the liquid sloshing around. This is the buttermilk separating from the butter. Pour the buttermilk into a cup, replace the lid and shake the jar again to release more of the buttermilk.

When you think it's ready, pour the remaining buttermilk into the cup and remove the butter from the jar. Gently rinse it under some cold water to remove the remaining buttermilk. Again, ask the children what they observe and record observations. Ask, “Is the butter solid or liquid? How do you know?”

Serve the butter at once on crackers or bread, or chill to serve later.

Discuss

Talk with your students about the chemical reaction that creates butter: When shaken, the tiny fat molecules in the cream smash against each other and form clumps. These clumps are your butter! As you take turns shaking the jar, talk about the changes you notice with the children. What does the cream look like before you start shaking it? What does it look like during the process? Is the process reversible – can butter be turned back into cream?Extension Activities

SECTION	KANSAS EARLY LEARNING STANDARDS ADDRESSED
ATL.PEL.P4.3	Carries out tasks, activities, projects or experiences from beginning to end.
PHD.PF.P3.1	Participates in a variety of active play exhibiting strength and stamina.
PHD.PF.P4.1	Participates in a variety of active play exhibiting strength and stamina for increasing amounts of time.
PHD.NHE.P3.1	Eats a variety of foods.
PHD.NHE.P4.1	Demonstrates basic understanding that eating a variety of foods helps the body grow and be healthy.
S.SI.P3.1:	Observes and experiments with how things work, seeks information from others.
S.SI.P4.1:	Makes increasingly complex observations of objects, materials, organisms, and events.
S.SI.P3.2:	Provides simple verbal or signed descriptions.
S.SI.P4.2:	Provides greater detail in descriptions
S.SI.P3.3:	Begins to look for answers through active investigation.
S.SI.P4.3:	Asks questions, predicts, experiments, draws conclusions and explains results.

VOCABULARY

Liquid - Liquids are things that can flow like water, milk, or juice.

Solid - solids are things that can keep their own shape like a block, a table, or a book.

PHYSICAL ACTIVITY

FOOD FRENZY

Have the students imagine they are the food that is stored in the kitchen pantry or refrigerator. The teacher is the cook. As the cook decides what food to cook they call it out. Students will perform various exercises of the food that is called as indicated below. Be sure to call out when the food is a dairy item!

Popcorn – Jump up and down like popcorn in a pan

Bacon – Lie on the floor and stomp your feet like bacon frying in a pan.

Carmel Popcorn – move like your feet and hands are sticking to the floor and you have to pull them off.

Swiss cheese – Stand with your arms making a circle like the holes in Swiss cheese.

Scrambled eggs – Move around in the play area like eggs that are being stirred in a pan.

Pretzel – Stand up with hands crossed above your heads and your legs crossed like a twisted pretzel

PRESCHOOL

Sausage – Curl up in a ball on your side like a sausage patty.

Fruit Roll-Up – Log roll across the floor.

Pizza – Stand up with feet wide apart and hands together above your head like a slice of pizza

Hardboiled Egg – Sit on the floor, pull your knees to your chest and wrap your arms around your knees.

Popsicle – Stand up straight and tall as if you are a frozen Popsicle.

Melting Ice Cream – “Melt” to the floor from a standing position.

Whipped Cream – run in place and rotate your arms like a Hand Mixer

Ask the children if they have any ideas of other foods they could be and what the action for that food would be.

SECTION	KANSAS EARLY LEARNING STANDARDS ADDRESSED
ATL.PEL.P3.3	Remembers and follows one- or two-step directions.
ATL.PEL.P4.2	Gathers information through listening. Remembers what was said in brief group discussion.
ATL.C.P3.4	Creates own ideas for play, using imagination and inventing new ways to use everyday materials.
ATL.C.P4.4	Invents new activities through play.
PHD.GMS.P3.1	Uses locomotor skills with increasing coordination and balance.
PHD.GMS.P4.1	Demonstrates locomotor skills with control, coordination and balance in active play.
PHD.PF.P3.1	Participates in a variety of active play exhibiting strength and stamina.
PHD.PF.P4.1	Participates in a variety of active play exhibiting strength and stamina for increasing amounts of time.

LITERACY

HOW TO SPEAK MOO!

Materials

the book *How to Speak Moo* by Deborah Fajerman, a cow puppet, large pictures of different foods including an assortment of dairy foods (like milk, string cheese, yogurt, ice cream, butter, etc.).

Read the book *How to Speak Moo!* By Deborah Fajerman. (You can find a read aloud of this book on YouTube if you are unable to get the book.) Before reading the book, ask the children if they know what animal milk and dairy foods come from. Ask them what noise cows make. During the story, have the children moo along as they are taught on each page. After reading the book, let the class know that they can now speak moo, and they can now talk to our friend Mary Moo (the cow puppet).

Remind the children that milk and foods in the dairy group are made from milk which sometimes comes from cows. Ask them, “Do you know what sound a cow makes?” Introduce the class to “Mary Moo”, the cow puppet and have them say Mary Moo’s favorite word (which is “MOO”, you can have them do a loud moo, soft moo, or jumpy moo like in *How to Speak Moo*). Show them the food image pictures one at a time and have them identify it. If the food is in the dairy group, have the children “MOO” and stand up. When shown a nondairy food, have the children “BOO” and sit down.

SECTION	KANSAS EARLY LEARNING STANDARDS ADDRESSED
CL.L.P3.9	Actively engages in small group reading activities with purpose and understanding.
CL.L.P4.10	Actively engages in large and small group reading activities with purpose and understanding.
CL.L.P3.4	Interacts with a variety of books.
CL.L.P4.5	Interacts with a larger variety of books and text.
ATL.PEL. P4.2	Gathers information through listening. Remembers what was said in brief group discussion.

MATH

ADDING COW SPOTS

Students need a blank cow picture (Clip Art), pom poms (for cow spots) and playing cards. Pull the numbers that you want the children adding. Have the students flip over one card and add that number of spots to their cow. They can count the suit shapes on the card if they are not yet ready to read the number. Then flip over another card and add that number of spots. After two cards are flipped count how many total spots are on the cow. Make an addition sentence with the card and the cow. For example $2 + 3 = 5$. You could also make a dry erase mat with rectangles for the cards, a plus sign, equal sign, and then a space to write the answer.

SECTION	KANSAS EARLY LEARNING STANDARDS ADDRESSED
M.OA.P3.1:	Demonstrates an understanding of addition by using objects in practical situations.
M.OA.P4.1:	Demonstrates an understanding of addition and subtraction by using objects, fingers and acting out practical situations.
M.OA.P4.2	: Composes and decomposes numbers less than or equal to 5 into pairs in more than one way by using objects.

FINE ARTS

VISUAL ARTS

It Looked Like Spilt Milk

Read the book “It Looked Like Spilt Milk” by Charles Shaw. Now have the children make their own clouds. Squeeze some white paint on blue construction paper. Then, using a straw, blow the paint around. When they are satisfied with their cloud, have them decide what it looks like and label their drawing.

SECTION	KANSAS EARLY LEARNING STANDARDS ADDRESSED
PHD.FMS.P3.1	Uses classroom and household tools independently and with eye-hand coordination to carry out more complex activities.
PHD.FMS.P4.1	With fluency and accuracy, uses classroom and household tools independently and with eyehand coordination to carry out activities.
CA.VA.P3.1A	Creates visual art with various materials; begins to use color, lines and shapes to communicate meaning.
CA.VA.P4.1	Uses a variety of materials and tools to create art.
CA.VA.P3.3A	Works independently to create art.
CA.VA.P4.4	Discusses own artistic creations and those of others.

DRAMATIC PLAY

Dramatic play centers could include:

- Ice Cream Parlor
- Dairy Farm
- Grocery Store
- Vet Clinic

SECTION	KANSAS EARLY LEARNING STANDARDS ADDRESSED
ATL.I.P3.2	Initiates play with other children and takes on a variety of roles while playing.
ATL.I.P3.3	Explores, practices, understands social roles through play.
ATL.I.P4.3	Invites other children to join groups or activities.
ATL.I.P4.4	Makes and follows plans for games or activities with other children.
CA.DP.P3.3A	Uses costumes to become a character in everyday environment.
CA.DP.P4.1	Takes a role in acting out a story.
CA.DP.P4.1A	Creates dialogue specific to a type of character.
CA.DP.P4.3B	Creates and executes complicated plot with conflict and resolution.
CA.DP.P4.3C	Creates unique characters using imagination.
SS.E.P3.2	Trades or exchanges materials or objects with others.
SS.E.P4.3	Demonstrates an understanding that money can be exchanged for goods and services.
SED STANDARDS	See the Social Emotional Development Standards. Most of these are addressed during dramatic play.

LITERATURE CONNECTIONS

Read Aloud Protocol

Reading aloud to children is an important part of helping them be proficient readers. It builds their oral vocabulary, which is foundational to establishing a strong reading and writing vocabulary. It builds background knowledge which will support future reading comprehension. Reading (and singing) with students is one of the best ways to “reset” the climate in your classroom, calm and refocus attention on learning. As you share a book with students, make sure students are seated comfortably and that you show the book’s illustrations as you read the text. This will allow students to utilize the illustrations to support vocabulary learning and comprehension. This will be extremely important for students who have recently arrived. Included below are some helpful tips for sharing a book with children that will ensure the experience is joyful and informative.

- Prepare for the reading, preview the book to see if there are any parts of the book that may be confusing and require additional explanation. Check for both content and language appropriateness.

PRESCHOOL

- Think of a fun and engaging way to introduce the book. Engagement can be enhanced by having an item to accompany the book to pique their interest and curiosity. Consider an item integral to the theme/topic of the book (a piece of fruit, a spade, a cup of soil), a puppet, a brief story or an engaging question.
- Plan a few questions to propose before, during and after the reading- but don't make it an interrogation! Questions don't need to be literal or detail oriented, but can be thought provoking, such as "How might you fix this problem?" or "Think of a time when something like that happened to you?", etc.
- Think of ways to keep each student actively engaged during the reading (raising hands, giving thumbs up/down, discussing with a shoulder partner, clapping out answers, etc.)
- Encourage word curiosity! Stop at words not all students may know and conduct a think-aloud. "Boys and girls...I see a new word and I am wondering if anyone can tell me what "soil" is..."
- Check for understanding. At the completion of the book, ask a few questions to check for general understanding related to the characters, plot, problem, or solution in the story and/ or a few of the relevant who, what, when, where why and how questions essential to comprehending the story.
- Leave the book where the children can access it for a re-reading experience, navigation of the pictures if a picture book and for a future writing model.

SECTION	KANSAS EARLY LEARNING STANDARDS ADDRESSED
N/A	See Learning Standards for Communication and Literacy

Possible book options with a dairy theme:

- It Looked Like Spilt Milk by Charles Shaw
- Milk: From Cow to Carton by Alike
- The Milk Makers by Gail Gibbons
- How to Speak Moo by Deborah Faje
- Farmer McPeepers and His Missing Milk Cows by Katy Duffield
- Counting Cows by Woody Jackson

Possible Field Trips

Possible Field Trips related to dairy could include:

- Dairy Farm
- Dairy section of the Grocery Store
- Any store that specializes in dairy items like cheese, frozen yogurt or ice cream
- Vet Clinic (One that treats cattle would be great so children can ask about how they care for dairy cows)

Carefully crafted field trips offer opportunities to enhance children’s development across cognitive, motor, and social and emotional domains (Bozdogan 2008; Bailie 2010). They are a valuable part of the learning experience, and the educational benefits have been substantiated through years of research. Planned excursions outside the classroom contribute to learning new information (Kisiel 2003; Scribner-MacLean & Kennedy 2007; Nadelson & Jordan 2012) and make content relevant as students integrate that new information with their prior learning (Lei 2010a, 2010b). High-quality field trip experiences lead to increased interest in and a deeper understanding of subject matter (National Research Council 2009).

The most effective field trips will include careful preparation for before, during and after the field trip itself. Kansas Early Learning Standards aligned with this activity will vary widely depending on how you carry out the event especially Social Studies Standard. Plan out which standards you wish to target before, during, and following up from your trip.

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