



Kansas leads the world in the success of each student.

#### **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.

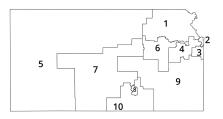
# **OUTCOMES**

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





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# 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!



# **VOCABULARY**

Nutrients: a substance that provides nourishment essential for growth and the maintenance of life

Energy: power expended or capable of being transformed into work.

Material: matter that has qualities which give it individuality and by which it may be categorized

# **GENERAL RESOURCES**

# **ENGAGE**

Collaborate with your cafeteria to acquire a carton of milk for each student. Do be mindful of your students that might not be able to have milk due to allergy reasons. Ask students: "Why do we drink milk?" Solicit student ideas. Listen for ideas that we drink milk to provide our bones the calcium needed to repair bones and keep them strong.

Share with students that milk is a dairy product that comes from cows. With students in groups of four seated at desks, use the following cooperative learning structure of round table for students to brainstorm other items they eat that also would be considered as a food that comes from dairy. Students pass around a paper and when they have the paper, they write one item that comes from dairy. They then pass the paper clockwise to the next student. Continue for three to five minutes, making sure every student has had the opportunity to write one or two ideas on the paper.

Allow a share out of groups where each group shares an idea that is different from the other groups.

# **EXPLORE**

Share with students that dairy provides us with material that allows our bodies to grow and have energy to maintain body warmth. Show students information about the nutrients in dairy products<sup>1</sup>, stopping at 1:36.

Provide groups of four students various nutrition labels of dairy products. Ask groups to analyze the nutrition labels to highlight the nutrients that provide us with material that allows our bodies to grow and have energy to maintain body warmth. Give groups about five minutes to analyze the nutrition labels.

If you are not able to acquire enough labels, use a nutrition document<sup>2</sup>.

Once enough time has been provided, allow each group to share their findings. A great resource for nutrients found in dairy is found at fuelup.org.<sup>3</sup>

<sup>1 &</sup>lt;a href="https://www.youtube.com/watch?v=YaDL9N27zm0">https://www.youtube.com/watch?v=YaDL9N27zm0</a>

<sup>2 &</sup>lt;a href="https://eatingsmartbeingactive.colostate.edu/docs/Dairy.pdf">https://eatingsmartbeingactive.colostate.edu/docs/Dairy.pdf</a>

<sup>3</sup> https://www.fuelup.org/getmedia/23a80cfd-7cde-4d67-b37b-0afc18bd96e5/NDC\_Milk\_Handout\_RA\_USDA-approved.pdf

<sup>4 |</sup> Kansas State Department of Education | www.ksde.org

### **EXPLAIN**

Use the following read aloud protocol to read aloud the book Milk: From Cow to Carton by Aliki.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.
- Think of a fun and engaging way to introduce the book. Engagement can be enhanced by having an item to accompany the book to peak 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...! 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.

# **ELABORATE**

Contact the Southwest Dairy Farmers to schedule a visit with the mobile dairy classroom.<sup>4</sup>

<sup>4 &</sup>lt;a href="https://www.southwestdairyfarmers.com/schedule">https://www.southwestdairyfarmers.com/schedule</a>

### KANSAS SCIENCE STANDARDS ADDRESSED

# 5-PS3 Energy

Students who demonstrate understanding can:

# 5-PS3-1

Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

Clarification Statement:

Examples of models could include diagrams, and flow charts

The performance expectations above were developed using the following elements from the NRC document A Framework for K-12 Science Education.

# Science and Engineering Practices

#### Developing and Using Models

Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.

• Use models to describe phenomena. (5-PS3-1)

# Disciplinary Core Ideas

#### PS3.D: Energy in Chemical Processes and Everyday Life

• The energy released [from] food was once energy from the sun that was captured by plants in the chemical process that forms plant matter (from air and water). (5-PS3-1)

# Crosscutting Concepts

#### **Energy and Matter**

• Energy can be transferred in various ways and between objects. (5-PS3-1)

Connections to other DCIs in fifth grade: N/A

Articulation of DCIs across grade-levels: K.LS1.C (5-PS3-1); 2.LS2.A (5-PS3-1); 4.PS3.A (5-PS3-1); 4.PS3.B (5-PS3-1); 4.PS3.D (5-PS3-1); MS.PS3.D (5-PS3-1); MS.PS3.D (5-PS3-1); MS.LS2.B (5-PS3-1)

Common Core State Standards Connections: ELA/Literacy

#### RI.5.7

Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. (5-PS3-1)

#### SL.5.5

Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. (5-PS3-1)

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