



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.

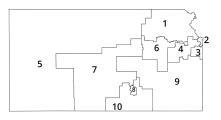
OUTCOMES

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





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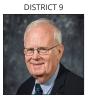
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HARVEST OF THE MONTH

May / Mixed Berries

INTRODUCTION

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

- They are small, edible fruits.
- They are usually juicy, round, and brightly colored.
- They taste sweet or sour,
- They may have many small seeds.
- They are grown on trees, shrubs, bushes and on plants along the ground
- This type of food is usually high in things like vitamin c and antioxidants which help keep us from getting sick.
- You can eat them fresh, in a smoothie, or baked in muffins or even a pie!

What do you think this fruit might be? We will be learning about berries!

Some different types of berries include raspberries, strawberries, blackberries, gooseberries, blueberries, huckleberries, mulberries and currants. Have you ever tried any of these? Which are your favorite? How do like to eat them?



K-2

VOCABULARY

Seed Dispersal

Seed

GENERAL RESOURCES

ENGAGE

Provide students with either pictures of berries that would be found in Kansas or actual berries that can be found in Kansas. Ideas for berries can be: strawberries, raspberries, blackberries, and blueberries. Do make sure that the seeds of these berries are able to be seen by your students. Blueberries do have very tiny seeds, so you may want to cut the blueberry in half for your students to see them.

Instruct them to look closely at the berries, and task them to write things they notice about the berries on either a large piece of paper or on a group whiteboard. When students are looking closely at the berries, they can look at the outside of the berry, they can investigate the inside of the berry, and they can investigate the seed of the berry.

Provide students with 5-10 minutes of investigation time along with writing their notices down. Then as a class, combine all the groups' wonders on a class anchor chart. Look for wonders about the seeds of the berries to be able to use to disperse and grow. If students do not have a wonder about how seeds might cause new plants to grow, please add this as a teacher's wonder since the lesson will look at how berries are able to have a structure and function of the seeds for seed dispersal that leads to helping the plant continue to grow and multiply.

EXPLORE

Ask students, "What do you think the purpose of the seeds of a berry is?" Solicit student answers. Listen for a student to say that the seeds function is to grow more berries.

Ask students, "How do you think a berry is able to use their seed to grow more berries?" Listen for answers that either animals will eat the berries and then carry the seeds in their poop or that berries will drop from the plant to the ground, the berry will dry over time, and the seeds will eventually be replanted in the ground.

Task students with drawing a model of how they believe the berries are able to grow more berries. Provide students with a sheet of paper, and give them 5-10 minutes to draw their models. When students are finished, ask them to stand up, hand up, and pair up to share their models with a partner. Repeat the cooperative learning structure of hand up, stand up, and pair up for students to share with two other students.

EXPLAIN

Read aloud the book The Berry Book by Gail Gibbons. Follow the following read aloud protocol. .

ELABORATE

Task students with designing a way for a seed from a berry to be spread over a great distance such as the length of the classroom or down the hall of the school. Provide groups of students with supplies such as egg cartons, pipe cleaners, rubber bands, string or other materials you have readily available in your classroom. Give students 20 minutes with building a seed dispersal device.

Students can use beans to simulate a berry seed to test for their device.

Once designing and building has occurred, ask each group of student to share their device, test their device, and then chart how many seeds each device was able to disperse.

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...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.

KANSAS SCIENCE STANDARDS ADDRESSED

K-LS1-1 From Molecules to Organisms: Structures and Processes

Students who demonstrate understanding can:

K-LS1-1

Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.*

Clarification Statement:

Examples of human problems that can be solved by mimicking plant or animal solutions could include designing clothing or equipment to protect bicyclists by mimicking turtle shells, acorn shells, and animal scales; stabilizing structures by mimicking animal tails and roots on plants; keeping out intruders by mimicking thorns on branches and animal quills; and, detecting intruders by mimicking eyes and ears.

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

Constructing Explanations and Designing Solutions

Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.

• Use materials to design a device that solves a specific problem or a solution to a specific problem.

Disciplinary Core Ideas

LS1.A: Structure and Function

• All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.

LS1.D: Information Processing

 Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs.

Crosscutting Concepts

Structure and Function

• The shape and stability of structures of natural and designed objects are related to their function(s).

Connections to Engineering, Technology, and Applications of Science

Influence of Engineering, Technology, and Science on Society and the Natural World

• Every human-made product is designed by applying some knowledge of the natural world and is built by built using materials derived from the natural world

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