



FARM a MONTH

Where does our food come from?

EDUCATOR'S GUIDE

Pre-School and Elementary School Resource

AMERICAN FARM BUREAU
FOUNDATION  FOR AGRICULTURE®



Welcome!



Welcome to Farm a Month—an exciting way for teachers, families and volunteers to engage preschool and elementary age students throughout the year. This resource is meant to help foster conversation about where our food and fiber come from. In this kit you'll find:

- **U.S. Map:** Reinforce geography as students learn about different products and where they are produced.
- **Activities:** There's one for every month, each focusing on a different commodity! If you aren't in school year-round or you are doing these activities at home, set up a farm-learning schedule. You can have "Farm Fridays" or "Meet a Farmer Mondays," just to name a few.
- **Suggested Books and Snacks:** Don't miss these! In each activity, you'll find a recommended book to read and a fun snack to make.
- **Meet a Farmer Features:** We've interviewed farmers across the country and captured their stories. You'll find them at the end of each activity.
- **Meet a Farmer Stickers:** After you read a farmer feature, pull out the matching farmer sticker and add it to your U.S. map.

Reach out! There is nothing like meeting a farmer face to face. We encourage you to contact your local county Farm Bureau to connect with farmers and ranchers in your area.



AMERICAN FARM BUREAU
FOUNDATION FOR AGRICULTURE

This resource is brought to you by American Farm Bureau Foundation for Agriculture
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JANUARY

From Tree to Table

Activity Description: Students will make an art project showing maple flowing from maple trees.



Commodity
Maple Syrup

Featured State
Vermont

Suggested Book
Maple Syrup from the Sugarhouse
by Laurie Lazzaro Knowlton

Make a Snack!
Cook miniature pancakes to dip in maple syrup.

MATERIALS

- Paper grocery bags
- Scissors
- Maple leaves (real or paper)
- Construction paper
- Glue
- Gold glitter

Activity Steps

Activity Prep: Using the grocery bags, cut one rectangular tree trunk per student and cut two circular pancakes (1"–2" diameter) per student. Collect or prepare maple leaves.

Step 1: Give each student a piece of construction paper.

Step 2: Explain to students that maple syrup is made from the sap of maple trees. Farmers tap trees and use a tool that looks like a faucet to drain maple sap. The sap is heated into syrup.

Step 3: Have students glue one tree trunk on the left side of their construction paper. Add leaves.

Step 4: Have students glue two circular pancakes on the right side of their paper.

Step 5: Have students make a line with glue from the center of the tree trunk to the pancakes. Cover with gold glitter simulating maple syrup.

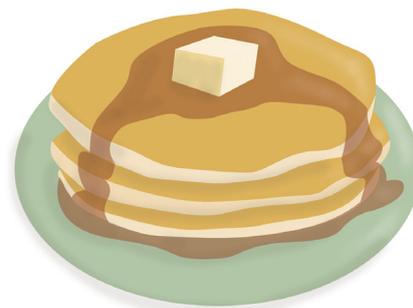
Processing Questions

- What are words that you would use to describe maple syrup? Listen for students to share terms like "sweet," "sugary," "thick," "runny," etc.
- How does maple syrup get to us? Listen for students to share that farmers harvest sap, it is heated into syrup, taken to a grocery store/farmers' market/restaurant and we purchase it.

Extension Opportunity

Create a bulletin board, or share an online video, demonstrating how maple syrup is collected from trees and processed.

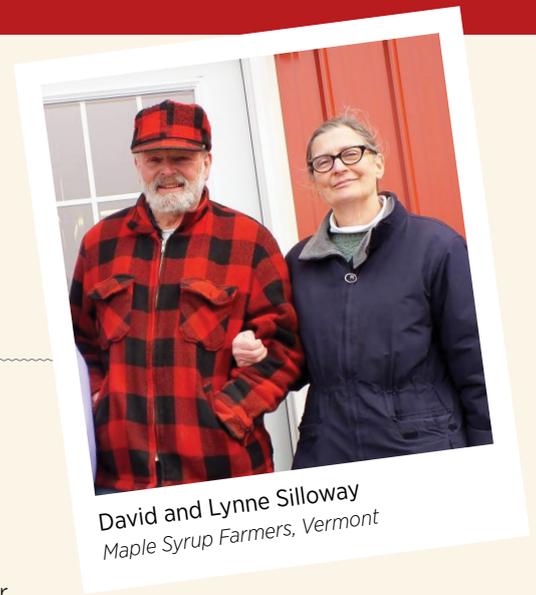
- Farmers drill, tap and hang a bucket on each tree.
- They gather the sap from the buckets.
- They boil the sap down to syrup.
- They filter the syrup and pour into bottles.¹



¹Exploring Maple Syrup. (n.d.). Retrieved March 10, 2015, from http://www.agclassroom.org/ny/programs/pdf/literacy/lesson08_exploring.pdf

Meet a Farmer!

David Silloway



Dear Students,

I'm David Silloway and my family owns Silloway Maple in Randolph Center, Vermont. We manage maple trees to make maple syrup. We have been sugaring since 1942 when my parents started the business. Today, we tap over 5,000 maple trees!

Did you know that a sugaring season lasts four to six weeks during the springtime? Our whole family gets together to help harvest. Tree sap is used to make syrup. Sap is made of water and sugar. It takes 40 gallons of sap to make one gallon of syrup. The season starts in February, when we tap a hole in the trees. We put a long tube in the hole to catch the sap. We only take a small amount of sap from the tree. Then we send the sap to storage tanks in the sugarhouse. A machine takes some water out of the sap. Next, the sap is boiled in an evaporator, where more water evaporates into steam. The sap heats up and thickens, turning into syrup. Every year we make up to 3,000 gallons of syrup! On our farm, we make maple syrup, maple cream, maple candies and maple-covered nuts. We sell these products in stores, farmers' markets and online. Visitors to our farm can eat old-fashioned maple donuts and watch a film on the history of sugaring!

Want to know something amazing? The sun powers the entire sugarhouse and part of our farm! We also burn waste wood for energy. We thin the maple forest to help trees grow. Thinning makes the trees less crowded. Our biggest pests are squirrels and porcupines. The squirrels chew on the tubing that runs the sap from the trees and the porcupines eat the bark off the trees!



We are proud to produce a pure and natural sugar. Even after a long day, I am inspired by my love for the land and working outdoors. In my free time, I like to ride my motorcycle and play Scrabble. Do you want to know my favorite maple product? All of them! I've got a sweet tooth.

Sincerely,
David Silloway
Maple Farmer

FEBRUARY

The Popcorn Process



Activity Description: Students will practice counting while making popcorn.

MATERIALS

- Air popper
- Popcorn kernels
- Butcher paper
- Marker

Activity Steps

Activity Prep: Place two large (approximately 5 feet long) sheets of butcher paper side by side on the floor. Place the air popper in the center. Draw a small circle around the base of the popper. Moving outward, draw 3 larger circles. Label each A, B, C and D.

Step 1: Before plugging in the popper, add popcorn kernels to the popper. Do not replace top on popper.

Step 2: Ask students to predict how many popped kernels will land in each circle. Write predicted number with a marker on the paper.

Step 3: Turn on popper. Have students stand away from the popper and observe.

Safety Note: *Keep students away from hot kernels and hot popper.*

Step 4: After popper has finished, have students count the popcorn in each circle and compare to their estimate.

Processing Questions

- Where does popcorn come from? Listen for students to say, “corn” or “corn on the cob.”
- Why do you think farmers make sure that popcorn kernels are sorted and cleaned before they are packaged? Listen for students to share that farmers care about providing a safe product for consumers.
- How does popcorn get to us? Listen for students to share that farmers grow it, it is taken to a grocery store/farmers’ market/restaurant and we purchase it.

Extension Opportunity

Create a bulletin board showing the process for growing popcorn.

- Farmers use a corn planter to put the popcorn seeds into the soil. Most popcorn is planted in the states of Iowa, Illinois, Indiana, Kansas, Kentucky, Michigan, Missouri, Nebraska and Ohio.
- After it is planted in the ground, it takes about 10 days for the popcorn plant to start poking above the soil. It will grow a tall stalk (about 8 feet high). Ears of corn begin to grow.
- Popcorn is ready to be harvested when the stalk and leaves are brown and the kernels are hard. A combine is a machine that knocks down the stalks, picks off the ears of corn and strips the kernels off the ear of corn. The popcorn kernels are then loaded into a truck. That truck takes them to a storage bin to dry.
- The dried popcorn kernels are cleaned and packaged into bags or jars.

Commodity
Popcorn

Featured State
Indiana

Suggested Book
Popcorn Country
by Cris Peterson

Make a Snack!
Make popcorn trail mix by mixing popcorn, pretzels and dried fruit in a small bag.



Meet a Farmer!

Kevin Underwood

Dear Students,

I'm Kevin Underwood. I am a corn and soybean farmer in West Lafayette, Indiana. I am a second-generation farmer. Our family has 800 acres of corn and 800 acres of soybeans. We began planting popcorn in 2011.

We aim to keep our soil healthy. We leave the parts of the plant that we don't eat on top of the soil. This is called conservation tillage. We also plant cover crops in the fall. Cover crops keep the nutrient rich topsoil in place during the winter and on windy days. We only apply fertilizers when the crops need it. Just like other farmers, we depend on the weather. The weather controls when we can plant and when our crops are done growing. We rely on rainfall for water. We commonly get 36 inches of rainfall in one year!

Farming is a year-round job. From April through May, we plant the crops. During the summer we watch for diseases and pests. In mid to late September, we harvest the crops with a tractor called a combine. My dad or another family member often helps with harvest. The field corn is sold to feed livestock. The popcorn is sold for humans to eat! Did you know that popcorn is a whole grain food? The kernels are taken off of the cob. They are used for the popcorn we all know and love. Most of the popcorn is put into microwaveable bags or jars for home use. Did you know there is water inside popcorn? The water makes the kernel pop when heated!

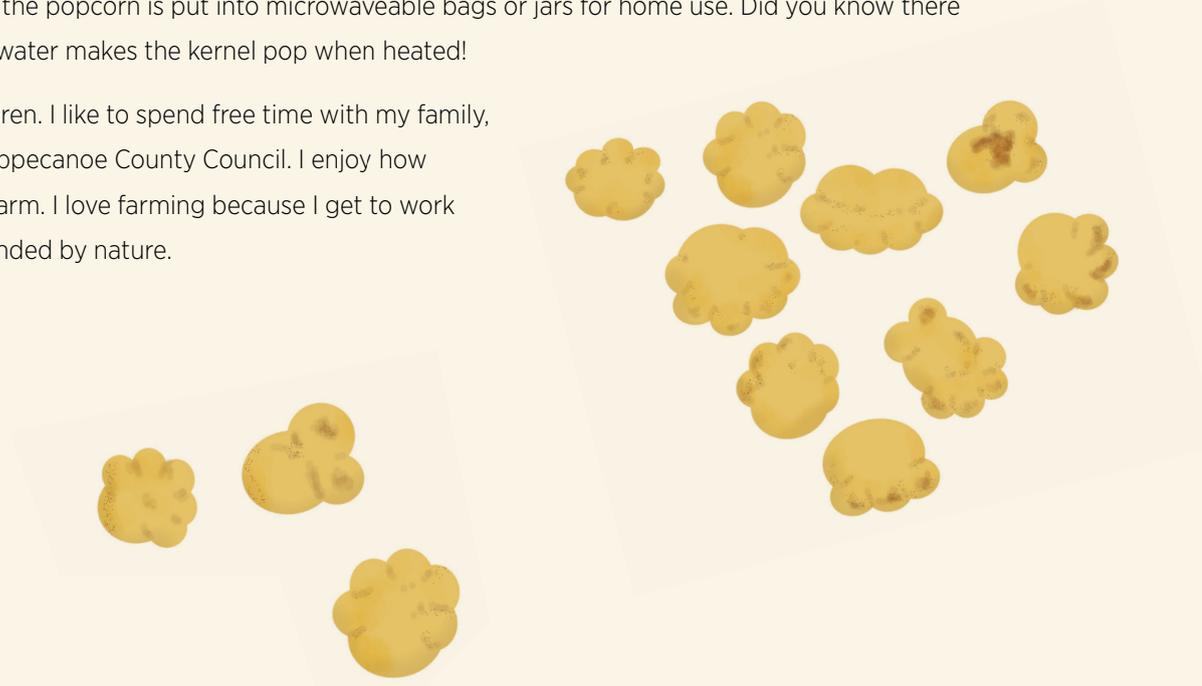
My wife and I have three children. I like to spend free time with my family, at church or serving on the Tippecanoe County Council. I enjoy how different every day is on the farm. I love farming because I get to work with my hands and be surrounded by nature.

Sincerely,

Kevin Underwood
Popcorn Farmer



*Kevin Underwood and Shane Geswein
Popcorn Farmers, Indiana*



MARCH

Pick the Peach



Activity Description: Students will use their sense of touch to decide which round fruit is a peach.

MATERIALS

- Peaches (enough for one per pair of students)
- Oranges (enough for one per pair of students)
- Apples (enough for one per pair of students)
- Blank paper
- Pencils

Activity Steps

- Step 1:** Split students into pairs. Give each pair one of each type of fruit.
- Step 2:** Have one student close their eyes. The other student will hand each piece of fruit to the student with closed eyes.
- Step 3:** The student with closed eyes will guess what fruit they are holding.
- Step 4:** Have the student with open eyes copy down if the other student guessed the fruit correctly.
- Step 5:** Have students switch roles and repeat the activity.

Commodity
Peaches

Featured State
Georgia

Suggested Book
The Fruits We Eat
by Gail Gibbons

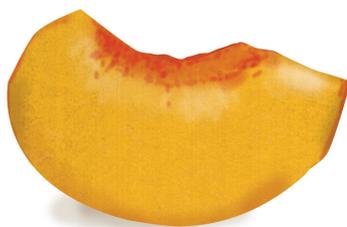
Make a Snack!
Make a layered
parfait with vanilla
yogurt and fresh
or canned peaches.

Processing Questions

- How did you know which fruit was which? Listen for students to share that peaches are fuzzy, oranges have more porous surfaces and apples are mostly smooth.
- How do peaches, oranges and apples grow? Listen for students to share that these fruits grow on trees.
- How do peaches get to us? Listen for students to share that farmers grow them, they are taken to a grocery store/farmers' market/restaurant and we purchase them.

Extension Opportunity

Search delicious peach recipes online. Display recipes and have students cook select recipes in class. Don't want to cook? Have students decorate recipe cards with recipe information as a gift for parents or family.



Meet a Farmer! Robert Dickey

Dear Students,

I'm Robert Dickey III and I own Dickey Farms in Musella, Georgia. I am a fourth generation farmer. Did you know that when Dickey Farms was started in 1897, mules were used to move peaches and plow orchards? While many things have changed since then, our family members still grow a healthy peach.

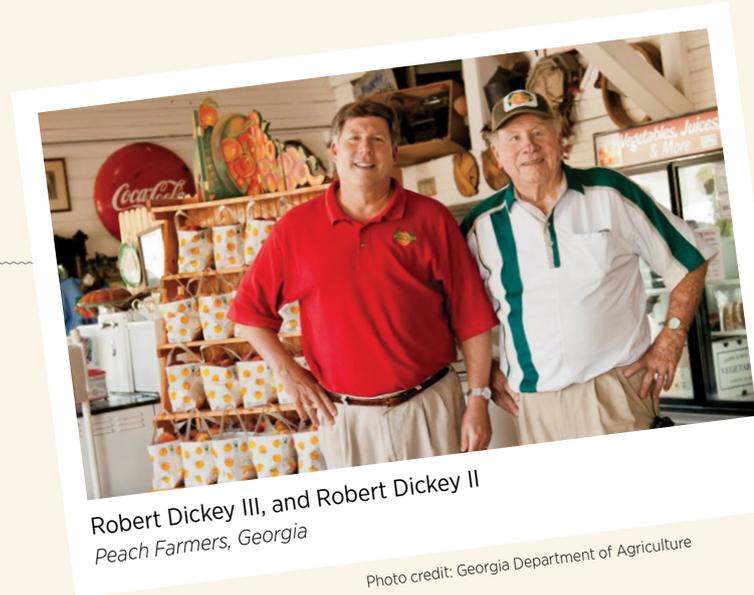
On Dickey Farms, we grow, pack and sell peaches. We grow up to 30 different peach varieties on 1,000 acres. Georgia has cold winters and hot summers. We worry about late spring frosts and bad weather. During spring, we spray the trees to control outbreaks. Fungus, insects, weeds and disease can harm the peaches. We check every day for pests and signs of disease. Did you know that a typical peach tree lives 16 years? From November to February the peach trees are dormant and all of the trees are hand pruned. Dormancy is a time for the peaches to rest. The trees need to be chilled below 45 degrees Fahrenheit for hundreds of hours to produce fruit. We harvest the peaches from May through August.

We hire more people during the spring to help with harvest and to pack peaches. We handpick all peaches carefully to keep them from getting bruised. Next, we pack the peaches. We ship the fruit out the same day it is picked. The trucks are refrigerated to keep the fruit fresh. We grow about 150,000 bushels of peaches every year. We sell nearly all of the peaches as fresh fruit. National grocery store chains and retail operations buy most of the peaches. People can also visit the farm to get fruit. Visitors can sit in rocking chairs eating peach ice cream, soaking up the Georgia sunshine.

I feel blessed with good employees and a great way of life. I also enjoy serving as a State Representative in the Georgia Legislature. I enjoy farming because I love watching things grow.

Sincerely,

Robert Dickey III
Peach Farmer



Robert Dickey III, and Robert Dickey II
Peach Farmers, Georgia

Photo credit: Georgia Department of Agriculture



APRIL

All About Apples

Activity Description: Students will compare and contrast different apple varieties.

MATERIALS

- Red Delicious apples (one per group of four students)
- Granny Smith apples (one per group of four students)
- Golden Delicious apples (one per group of four students)
- McIntosh apples (one per group of four students)
- Large sheet of paper or whiteboard
- Marker

Activity Steps

Activity Prep: Cut each apple in half. Leave one half for students to observe, cut the other half into pieces for students to taste. Create a table on a large sheet of paper or whiteboard. List apple names in the left column. Draw the following icons across the top: nose (smell), eye (sight), mouth (taste). Note: Consider any food allergies before offering samples to taste.

Step 1: Place one half of an apple in front of students. Ask students to describe how the apple looks and smells. Record observations on the chart.

Step 2: Allow students to taste samples. Record observations.

Step 3: Repeat with each variety.

Step 4: Discuss the students' observations on similarities and differences between varieties.

Processing Questions

- Why do you think farmers grow different apple varieties? Listen for students to share that farmers want to grow foods that appeal to many different types of people.
- How do apples get to us? Listen for students to share that farmers grow them, they are taken to a grocery store/farmers' market/restaurant and we purchase them.

Extension Opportunity

Cut apples in half and dip in poster paint. Let students decorate a poster or placemat using their fun apple stamps. These also make great borders for bulletin boards.



Commodity
Apples

Featured State
Michigan

Suggested Book
The Apple Orchard Riddle by Margaret McNamara

Make a Snack!
Make applesauce as a group or share a recipe for making applesauce at home.

Meet a Farmer!

Jeff VanderWerff

Dear Students,

I'm Jeff VanderWerff from Sparta, Michigan. I farm with my brother, father and uncle. We farm corn, wheat, soybeans and apples. We take care of 2,500 acres of land, 150 of which is apples.

Most of our apples, about 70 percent, are sold fresh. The rest are sold for processed apples. Did you know that if you get sliced apples at Subway®, they might have been from our farm?

There are many challenges we have to deal with on the farm. Weather is the biggest challenge. If it freezes and I lose my entire apple crop, I still have to work hard to keep my trees healthy all year, without bringing in any money! Labor is also a big challenge. Apples are all picked by hand. On our farm, we'll harvest nearly 10 million apples each season. We need workers to be able to harvest all of these apples!

Are you interested in farming? I encourage you to find something that works where you are and run with it! You don't need to have hundreds of acres to be a successful farmer. Understand your market and what you want to do with it.

Want to know something interesting? I didn't grow up as an apple farmer! My brother and I grew up farming other



Jeff and Alyssa VanderWerff
Apple Farmers, Michigan

things with our dad and uncle. But in 2004, we got a wild idea to start farming something new. We found a ten-acre orchard to rent and started farming apples. Now we have 150 acres of apples!

I love being able to work outdoors and work with my family. I am very fortunate to be in a job where I can connect directly with people who buy our apples.

Sincerely,

Jeff VanderWerff
Apple Farmer



MAY

Counting Oranges



Activity Description: Students will count the number of segments in an orange and graph their results.

MATERIALS

- Oranges (enough for one per pair of students)
- Whiteboard for class to record results
- Whiteboard markers
- Graphing worksheet

Activity Steps

Activity Prep: Peel oranges for students.

Step 1: Split students into pairs.

Step 2: Explain that students will need to count the number of segments in an orange and write their results on the board.

Step 3: Hand out the oranges and graphing worksheets.

Step 4: Once all results are recorded, have students graph the results of the class on the worksheets.

Commodity
Oranges

Featured State
Florida

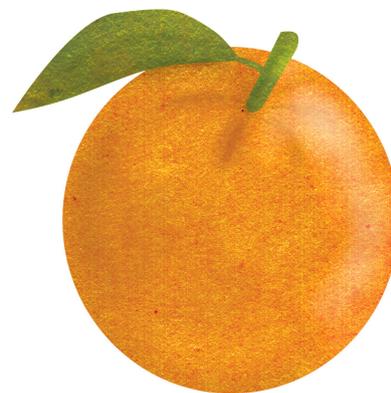
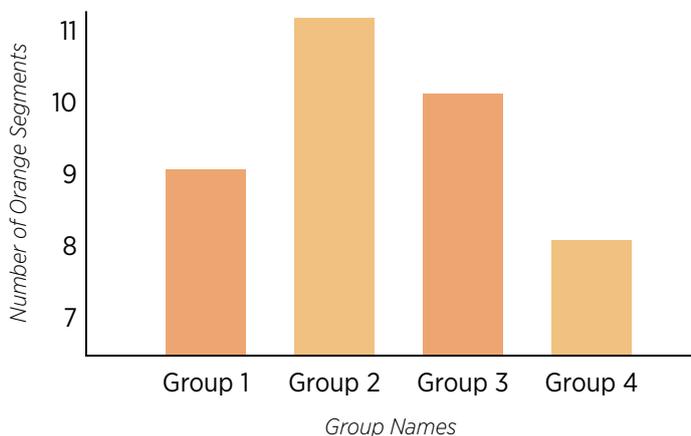
Suggested Book
Right This Very Minute by Lisl H. Detlefsen

Make a Snack!
Make orange juice smoothies for the class to enjoy as they learn about orange farming.

Processing Questions

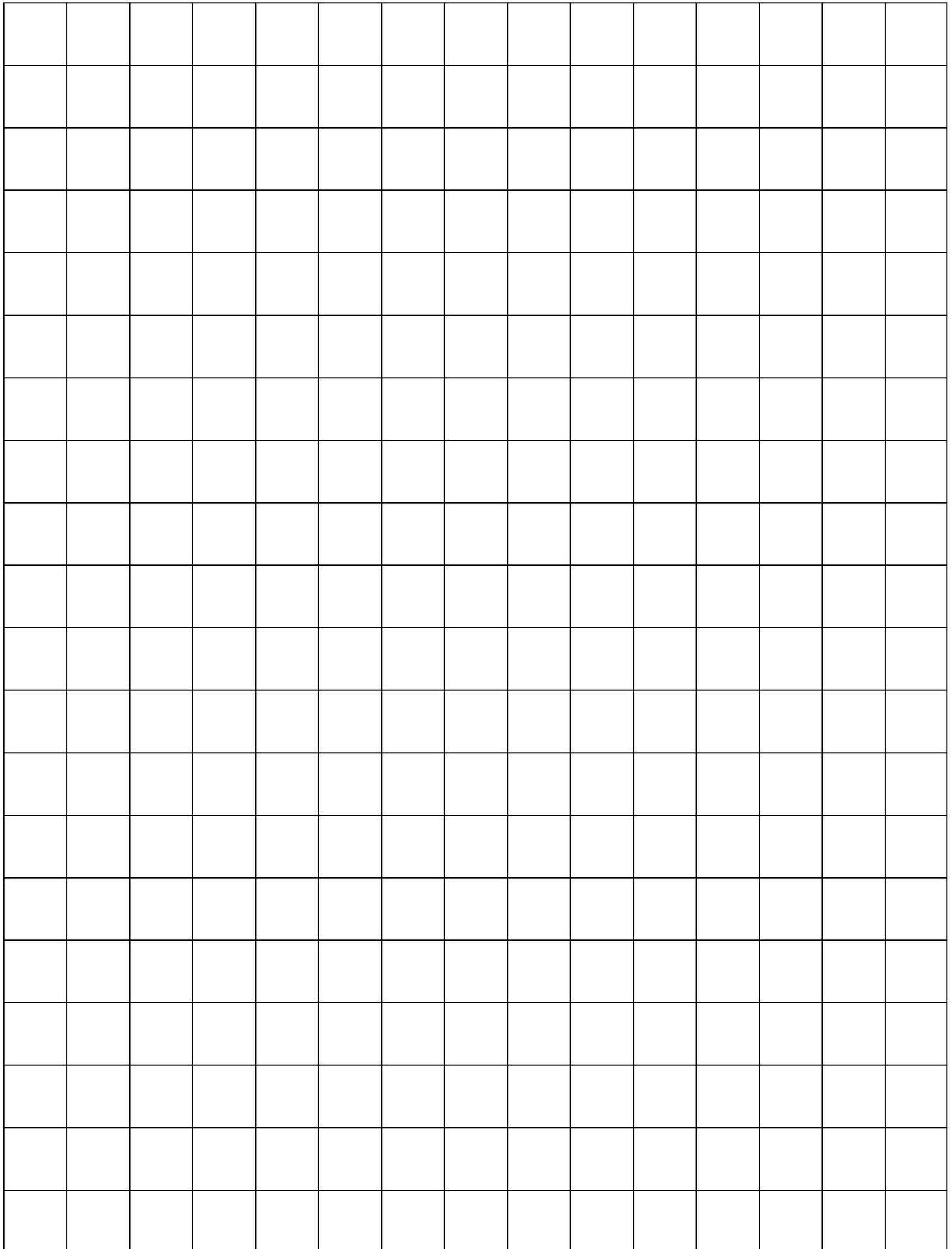
- Why are many oranges grown in Florida? Listen for students to share that oranges need warmer temperatures to grow.
- Where else might oranges be grown? Listen for students to identify “Florida,” “California,” “Texas” and “Arizona” as the top producing states.
- How do oranges get to us? Listen for students to share that farmers grow them, they are taken to a grocery store/farmers’ market/restaurant and we purchase them.

Sample Graph



Extension Opportunity

Post a U.S. and world map on a bulletin board. Have students collect stickers from oranges they buy at a grocery store. Add stickers to states/countries of origin for oranges eaten in your class.



Meet a Farmer!

Justin Sorrells

Dear Students,

I'm Justin Sorrells and I am a citrus grower in Arcadia, Florida. My family started growing citrus in the 1940s. I am in charge of harvesting, selling and marketing the fruit. My family members take care of the growing and management. We own 5,550 acres of citrus.

We plant about 40,000 trees every year. Did you know our average tree is 12 years old? We grow three orange varieties: Hamlin, Pineapple and Valencia. Planting different varieties allows us to harvest oranges all year long. We rent bees to come pollinate the citrus trees. The trees rely on plenty of water. Rainwater is the cheapest and easiest source of water. During dry years or in the summer we use well or pond water. Water is used to help warm the crops from freezing during the winter too. Freezing, pests and disease can ruin the crop. Did you know our orchards benefit the environment as well? Trees are a good source of oxygen for humans and animals. The groves in the orchards are a place for wildlife to live.

We have 1,000 full-time employees on the farm. But did you know we need an extra 450 people during harvest season? We pick the oranges off of the trees and put them on a truck to go to a processing plant. All of our oranges are made into fresh squeezed orange juice. We harvest 5 million boxes of oranges every year! One box of oranges weighs 90 pounds. That equals 45 million pounds of citrus from the farm.

I enjoy that I am now able to work with my dad every day. I look up to my dad. My other favorite part of my job is that I get to work in the great outdoors. I am not confined to an office where I have to sit at a desk all day. I'm proud to grow an American product!

Sincerely,

Justin Sorrells
Orange Farmer



JUNE

Lettuce Mini-Gardens

Activity Description: Students will plant their own lettuce seeds in mini-gardens.



MATERIALS

- Soil
- Egg carton bottoms (cut so each student has two egg compartments)
- Lettuce seeds
- Spray bottle filled with water

Activity Steps

Activity Prep: Poke a hole in the bottom of each egg compartment to allow for water drainage.

Step 1: Put 1 inch of soil in each egg compartment.

Step 2: Have students poke their finger in the soil, half way up their fingernail and add seeds.

Step 3: Cover seeds with 1/4 inch of soil.

Step 4: Spray each compartment with water.

Step 5: Place cartons in well-lit area that doesn't get too warm (under 75 degrees).

Processing Questions

- What do you think is difficult about growing lettuce? Listen for students to share ideas like "waiting for it to grow," "keeping weeds out of the soil," "stopping animals/pests from eating it," etc.
- Where do you think lettuce is grown? Help students identify Arizona and California as top lettuce producing states.
- How does lettuce get to us? Listen for students to share that farmers grow them, they are taken to a grocery store/ farmers' market/restaurant and we purchase them.

Extension Opportunity

Propagate lettuce in class! Cut the hard bottom off of a head of Romaine, Iceberg, or Leaf lettuce, so the lettuce head is about 1"-2" tall. Make a fresh cut on the bottom of the head, removing the dried outer layer. Place the lettuce in a shallow bowl of water. Watch as new lettuce grows from the center and roots grow from the base!



Commodity
Lettuce

Featured State
Arizona

Suggested Book
How Did That Get in My Lunchbox? by Chris Butterworth

Make a Snack!
Place lettuce around a vegetable stick for a fun wrap and dip in ranch dressing.



Meet a Farmer!

Jonathan Dinsmore

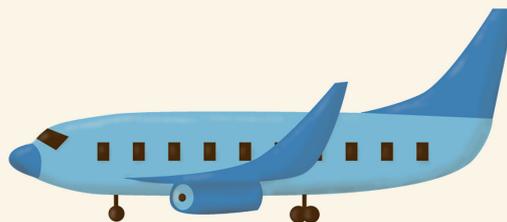
Dear Students,

I'm Jonathan Dinsmore and I am a vegetable, hay and grain farmer in Yuma, Arizona. Our farm was started in the early 1940s, which makes me a fourth generation farmer. Our farm is 1,600 acres. We primarily grow lettuce. We produce romaine, red and green leaf and iceberg lettuce.

Every season brings new tasks on the farm. From September to November we plant the lettuce seeds. Each variety has to be planted at a specific time. Did you know that the Yuma Valley is the lettuce capitol of the world? Even so, changes in weather can still make farming tricky. The ocean is a few hours away, but it can still cause a humid environment. This attracts aphids and worms and can cause mildew to form on the plants. I have to check on the wellbeing of my crops regularly.

From Thanksgiving to April 1, we harvest lettuce out of the ground by automated machinery or by hand. The "head" of the lettuce, which is the bulk above ground, is cut off of the roots. The lettuce is rinsed, wrapped and cooled for transport. We also grow broccoli, alfalfa, Sudan grass and wheat. These crops are primarily sold overseas in China, Japan and Italy.

I remember driving around the farm with my dad and grandpa as a young boy. I care deeply about this farm and want my products to be as safe as they can possibly be. The vegetable growing community has strict food



safety guidelines. I keep an eye out for birds, coyotes and trespassers to minimize any contamination. Our workers are also highly trained and the machinery is sanitized regularly.

In my free time I enjoy fishing, hunting and coaching my children's sports teams. I also play the trumpet! I love being a farmer because it is everything a family and community should be. It is an awesome responsibility to feed and clothe America.

Sincerely,

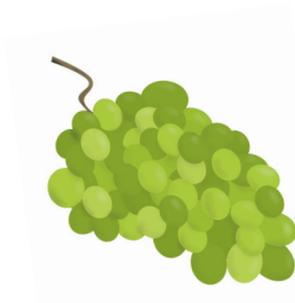
Jonathan Dinsmore
Lettuce Farmer



Jon Dinsmore and Family
Lettuce Farmer, Arizona

JULY

Grapes Galore



Activity Description: Students will explore the different parts of a grape plant and products made from grapes.

MATERIALS

- Raisins
- Individual grapes
- Grape seeds
- Cluster of grapes
- Bag of grape jelly/jam
- Disposable aluminum cake pans (or similar containers)

Activity Steps

Activity Prep: Place samples of each item listed above in a large disposable cake pan. If multiple groups are completing activity simultaneously, set up multiple cake pans.

Step 1: Place pan in center of each small group of students.

Step 2: Call out each item in the pan, one at a time, and have students hold that item.

Step 3: Have students pass the item around the group and describe how the item looks, feels and smells.

Step 4: Explain each item and how it relates to grape production.

Commodity
Grapes

Featured State
California

Suggested Book
PB&J Hooray!
by Janet Nolan

Make a Snack!
Stack grapes on a toothpick to make a grape caterpillar.

Processing Questions

- What is your favorite way to eat grapes? Listen for students to share the different ways discussed in the activity.
- How do grapes get to us? Listen for students to share that farmers grow them, they are taken to a grocery store/farmers' market/restaurant and we purchase them.

Extension Opportunity

Create a bulletin board using the following background information.

- Grape Seeds: Grape seeds are found inside the grape. They are planted in the ground and grape vines grow from these seeds.
- Cluster of Grapes: Grapes are grown on a vine. They grow in clusters, or groups, of grapes. They are picked and sold in the grocery store in these clusters. There are about 75 grapes on each cluster.
- Grapes: There are red and green grapes. Individual grapes make a great snack. Pick grapes from the cluster and rinse them. Now you're ready to eat!
- Raisins: Grapes are dried out to make raisins. If we were to make our own raisins, it would take about three days to dry out our grapes in the sun.
- Grape Jelly/Jam: Grapes can also be made into jam or jelly. Jelly is made only using the juice from the grape. Jam is made from actually crushing the grape and using all of it.



Meet a Farmer!

David Peters

Dear Students,

I'm David Peters and I am a grape grower in the central valley of California. My parents also grew grapes. I have 180 acres of vineyards in Kingsburg and Fowler. I graduated from California State University, Fresno. Then I taught high school agriculture for 30 years. Since 1991 I have been a full-time farmer.



All of my grapes are turned into raisins. I grow Thompson Seedless, Selma Pete and Zante currant grapes. During the winter, the vines are dormant. This is a time to prune and let the vines rest. Pruning is trimming away any unwanted canes. The remaining canes are tied to a trellis to hold them up. The soil between vineyard rows is sloped toward the sun. Did you know a vineyard can take less water and more stress than any other orchard crop? Even so, mildew and insects can hurt the grapes. I try to keep the helpful insects alive.

Around August, the grapes reach the best sugar level. We harvest the grapes by hand and then spread them in trays to dry. After about 11 days, the grapes have turned into raisins. The raisins weigh only 25 percent of their beginning weight. The water in the grapes evaporates and they shrivel up. Next, the raisins are shipped to Sun-Maid. Sun-Maid is a cooperative, meaning that all of the growers own the company together. They are also the largest dried fruit processor in the

world. Raisins are usually put into cereals, sold to bakeries or packaged. They are also sold overseas and in the United States. I believe it's important to be a leader, so I also serve on the Sun-Maid board.

I love to ride my motorcycle and travel with my wife. I enjoy seeing my grandchildren and coaching FFA members. I grow grapes because it makes me feel connected to the land and I enjoy being with nature.

Sincerely,

David Peters
Grape Farmer



David Peters
Grape Farmer, California

AUGUST

Pear Parts

Activity Description: Students will label the different parts of a pear.



MATERIALS

- Pears (one half per student)
- Image of pear parts
- Blank paper
- Crayons
- Blank or composition paper (one sheet)

Activity Steps

Activity Prep: Cut pears in half. Write the following words on blank or composition paper in large font: stem, seed, skin, flesh.

Step 1: Cut pears in half.

Step 2: Give each student a piece of paper, a crayon and a pear half.

Step 3: Have students trace the pear half on their paper. Have students draw seeds and a stem.

Step 3: Show students key words (stem, seed, skin, flesh) one at a time. Ask students to say the word out loud and point to that part of the pear.

Step 4: Have students label the part on their pear drawing. Note: For younger students you may want to print words and allow students to glue the word on their pictures.

Processing Questions

- What is the skin on the pear for? Listen for students to share that, like human skin, it protects what's inside.
- How do pears get to us? Listen for students to share that farmers grow them, they are taken to a grocery store/farmers' market/restaurant and we purchase them.

Background Information

Skin—Protects the fruit from dirt, pests, etc.

Stem—Where the fruit was attached to the plant

Seed—What can be replanted in the ground to start a new plant

Flesh—The tasty part of the fruit eaten by people

Extension Opportunity

Make pear-sauce in class, just as you would make applesauce. Peel, bring to a boil, let pears soften and add sugar and cinnamon. Cool and enjoy!

Commodity
Pears

Featured State
Oregon

Suggested Book
The Very Oldest Pear Tree by Nancy I. Sanders

Make a Snack!
Add thinly sliced pears to a quesadilla for a pear-a-dilla!



Meet a Farmer!

Randy Kiyokawa

Dear Students,

I am Randy Kiyokawa. I am a farmer in Parkdale, Oregon. In 1905, my grandfather came to America from Japan. My family began farming in 1911. Today we farm nearly 200 acres of land in the beautiful Hood River Valley. Kiyokawa Family Orchards grows cherries, apples, peaches, plums, blueberries, kiwis and pluots. We even grow the official state fruit of Oregon—pears.

We grow many different types of pears on our farm. We grow more than 24 different varieties of European and Asian pears! The warm Oregon days and mild nights are perfect for pear trees. We live at the base of Mount Hood, an 11,250-foot high mountain and must use our water wisely. Mt. Hood provides fresh snowmelt water and nutrient rich soils. Even with great soil, we have to protect the fruit too. We are always checking for insects and diseases. I care about the land, water and air. I consider myself an environmentalist.

Each year we harvest about two and a half million pounds of pears. Pears are harvested in August, September and October. European pears ripen once they are picked. Then our packing house, Diamond Fruit Growers, puts the pears into boxes to be sold. Most of our pears are sold in commercial grocery stores here in the United States and around the world. The rest are sold at our fruit stand, farmers' markets and bakeries. Local restaurants, schools and stores also buy our fruit. We always welcome visitors at the orchard when our fruit stand opens in the summer and fall! We have the largest "U-pick" orchard in the Hood River Valley. When people visit they can walk through the orchards and pick their own fruit. They can also buy jams, baked goods and cider at the fruit stand. Any of our unsold fruit is sold to people who turn the fruit into juice or sauce instead of being thrown away.

I like to spend time with friends and family. I also enjoy going to my kid's sporting, musical or other school events. Providing people with fresh and healthy fruits is so rewarding, especially when they exclaim, "This is the best pear I've ever eaten!"

Sincerely,

Randy Kiyokawa
Pear Farmer



Randy Kiyokawa
Pear Farmer, Oregon

Photo credit: Greg Robeson

SEPTEMBER

Guess the Cheese



Activity Description: Students will evaluate cheese by describing taste, smell, appearance and texture.

MATERIALS

- Marble Jack cheese
- Sharp cheddar
- Mozzarella
- Parmesan
- Bleu cheese
- 5 small paper cups
- 1 pack sticky notes

Activity Steps

Activity Prep: Label paper cups A through E. Fill each paper cup with a different type of cheese. Place labeled cheese cups at a small group learning station. Place one sticky note in front of each cup. Keep cheese labels.

Activity Note: For students with lactose intolerance, provide a supplemental snack without dairy. These students can participate by keeping a graph or doing the smell/texture part of the activity with the class.

Step 1: Have students evaluate each sample one at a time by describing how the sample looks and smells. Write descriptive words on the sticky note near the cup.

Step 2: Have each student taste each sample. Ask students to describe the taste. Write words on corresponding sticky note.

Step 3: Review descriptive words for each sample and share the name of the cheese with students. Have students say the name out loud. Show students the label for each cheese sample.

Processing Questions

- How do cheeses get their different flavors, looks, textures, etc.? Listen for students to share that each cheese is made differently, with a different recipe.
- What is cheese made from? Listen for students to say, "milk!"
- Where does milk come from? Listen for students to say, "cows."
- How does milk get to us? Listen for students to share that farmers raise cattle that provide milk, milk is turned into cheese, cheese is taken to a grocery store/farmers' market/restaurant and we purchase it.

Extension Opportunity

Look in a cookbook, or online, for different cheese recipes. Make cheese in class or create a bulletin board showing common cheeses students would recognize.

Commodity Cheese

Featured State
Wisconsin

Suggested Book
Extra Cheese, Please!: Mozzarella's Journey from Cow to Pizza by Cris Peterson

Make a Snack!
Make a pizza rollup with crescent rolls, pepperoni and 1/2 a string cheese stick.



Meet a Farmer!

Daphne Holterman

Dear Students,



I am Daphne Holterman. My husband, Lloyd, and I own a dairy farm in Watertown, Wisconsin. We are fourth generation Wisconsin farmers. After we went to college, we came back to the farm. Thirty-four years later, Rosy-Lane Holsteins LLC is a family business with 20 employees and two co-owners. I want people to come to work with a smile on their face every day!

Rosy-Lane Holsteins has 900 Holstein dairy cows, which live inside large barns with fans for fresh air. We keep the sand-bedded stalls clean to lower the risk of pests (like flies) and disease. There are about 80 cows in each group. The cows have plenty of room to walk around, eat, drink and lay down.

I believe that farmers play a big part in protecting the environment. We recycle as much water as possible to reduce waste. We also strive to keep our cows and baby calves healthy. We grow corn for silage and alfalfa hay on 1,700 acres. The cows eat alfalfa haylage, corn silage and a soybean protein mix. Food is available at all times for the cows.

We milk the cows 24 at a time in a milking parlor that is cleaned three times a day. Food safety is a very important issue to me. I want consumers to have nutritious and safe milk. All of our milk is sent to a cheese plant. We transport milk carefully in trucks. The temperature of the milk is recorded when it goes into the milk tanker (at about 34 degrees) and again when it is delivered to the plant to make sure it is under 40 degrees. This ensures high quality milk for cheese making. I love the string cheese that's made from our milk!

I also like to write and volunteer. I value communication between our farm and consumers. We offer farm tours by appointment. Other successful women in agriculture inspire me. I love my family and being a farmer.

Sincerely,

Daphne Holterman
Dairy Farmer



Daphne Holterman
Dairy Farmer, Wisconsin

OCTOBER

Pumpkin Math



Activity Description: Students will practice counting while learning about different parts of a pumpkin plant.

MATERIALS

- Small pumpkins
- Green yarn (enough to connect all pumpkins)
- Leaves
- Large spoon/scoop
- Newspaper
- Knife
- Blank paper

Activity Steps

Activity Prep: Cover a table with newspaper. Set pumpkins on the paper in a line connected by the yarn to represent a vine. Add leaves to the yarn. Use a knife to cut the tops off of enough pumpkins for students to remove seeds. Note: For younger students you may wish to draw pumpkin/leaf/seeds ahead of time. If time/space is limited, you may wish to remove seeds and wash prior to conducting the activity.

Step 1: Give one piece of paper to each student.

Step 2: Tell students about the lifecycle of a pumpkin: (1) A pumpkin starts as a seed planted in the soil. (2) A seedling pokes above the soil. (3) The small plant grows into a long vine. (4) Flowers start to grow on the vine. (5) Flowers turn into small green pumpkins. (6) The pumpkin grows, turns orange and is picked.

Step 3: Have students draw a pumpkin on their paper. Have students count the number of pumpkins on display and write the number on their paper.

Step 4: Have students draw a leaf on their paper. Have students count the number of leaves and write the number on their paper.

Step 5: Have students draw a seed on their paper.

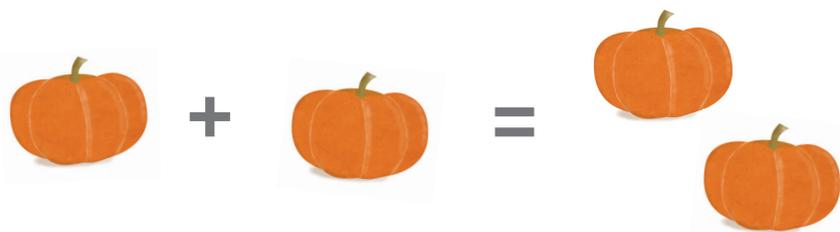
Step 6: Have students work together to remove pumpkin seeds and count. Students are to write the number on their paper.

Processing Questions

- Are pumpkins a fruit or a vegetable? Listen for students to share their guesses. Explain that pumpkins are a fruit (they contain seeds) but when it comes to cooking, they are often referred to as vegetables.
- How do pumpkins get to us? Listen for students to share that farmers grow them, they are taken to a grocery store/farmers' market/restaurant and we purchase them.

Extension Opportunity

Introduce students to a unique snack—baked pumpkin seeds. Soak raw seeds in saltwater and bake until crispy. Search online for various seasoning recipes.



Commodity
Pumpkins

Featured State
Virginia

Suggested Book
Pumpkin Countdown
by Joan Holub

Make a Snack!
Bake pumpkin bread or muffins for a warm treat.

Meet a Farmer!

Harriet Wegmeyer

Dear Students,

My name is Harriet. I'm a pumpkin farmer! My husband and I have a farm called Wegmeyer Farms. That's our last name. We have more than 50 varieties of pumpkins on our farm. We also grow strawberries and more than 40 different vegetables.

Do you want to know something interesting? I didn't grow up on a pumpkin farm! When I was in third grade I started growing pumpkins on my parent's dairy farm in New York. My mom was a schoolteacher and my dad was a dairy farmer. We also had an ice cream stand. Yum! My sister and I grew pumpkins as a way to make money on our own. We sold the pumpkins at the ice cream stand.

When I grew up, I moved to Virginia. My husband had grown pumpkins when he was a kid too. We decided to start our own pumpkin farm. We loaded up the pumpkins in our pickup truck and sold them at the farmer's market. Soon we started selling pumpkins at other farmer's markets. Now we let people come to the farm to pick their own pumpkins, and we sell pumpkins to grocery stores.

Did you know pumpkins are delicious? One year we got a call from a famous chef named Emeril Lagasse. He asked us to be on his cooking show! We made pumpkin soup with Emeril for his Thanksgiving special.

We plant pumpkins in early summer and harvest through mid-October. In the winter we care for the land by planting cover crops to add an important nutrient called Nitrogen back in the soil. Harvesting pumpkins is a hard job, because all of the pumpkins must be picked by hand. Some of them are very heavy! Being a farmer is a year-round job, but it is exciting. I love pulling back the leaves to discover each unique pumpkin!

Would you like to be a farmer? Go out on Flag Day and plant some pumpkin seeds! Watch how they grow and learn from them. You might become a farmer too!

Sincerely,

Harriet Wegmeyer
Pumpkin Farmer



Harriet Wegmeyer
Pumpkin Farmer, Virginia

NOVEMBER

Build a Turkey

Activity Description: Students will create a class turkey while celebrating things for which they are thankful.

MATERIALS

- Paper grocery bag
- Scissors (one pair for teacher)
- Large paper feathers cut from colored paper (approximately 12" x 2", one per student)
- Crayons
- Buttons, paper scraps or other small craft items
- Glue
- Push pins/staples

Activity Steps

Activity Prep: Using scissors, open the paper grocery bag. Cut out a body (including head and legs) of a turkey. Using colored paper, cut one large feather for each student.

Step 1: Give each student one large feather.

Step 2: Ask the students to think of one thing for which they are thankful. Help the students write a word or draw a picture representing this item in the center of the feather.

Step 3: Allow students to use craft supplies and crayons to decorate their feather.

Step 4: Hang the turkey body on the wall. Add students' feathers when they are dry.

Commodity Turkeys

Featured State
Missouri

Suggested Book
Thanksgiving Is . . .
by Gail Gibbons

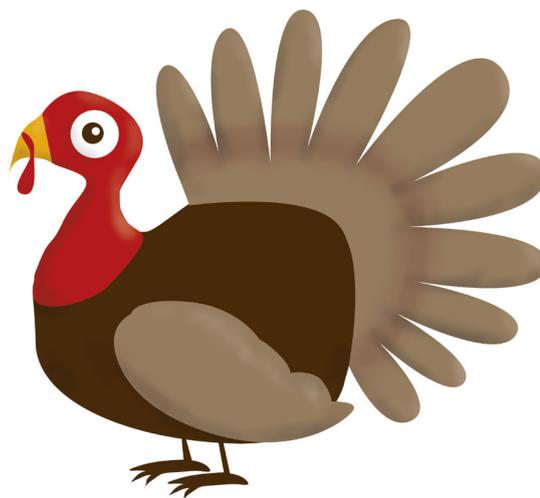
Make a Snack!
Add a pickle and cream cheese to a turkey slice, roll and eat!

Processing Questions

- What color are most farm-raised turkeys? Listen for students to say, "white." Wild turkeys are shades of brown, but the breed of turkey most often used for meat is a broad-breasted white turkey.
- Ask students to think of the food nutrition groups. In what nutrition group does turkey belong? Listen for students to identify "protein."
- How do turkeys get to us? Listen for students to share that farmers raise them, they are taken to a grocery store/farmers' market/restaurant and we purchase them.

Extension Opportunity

Introduce the turkey lifecycle by creating a bulleting board. Include an egg, followed by a hatching egg (28 days), young turkey, and finally a female with egg (28 weeks).



Meet a Farmer!

Don Steen



Don Steen
Turkey Farmer, Missouri

Dear Students,

I'm Don Steen, and I raise turkeys in Elden, Missouri. My dad started the business in 1943. I have been working on the farm since 1973. My wife and I take care of the turkeys. There are both hen and tom turkeys. A hen is a female and a tom is a male. Water is very important to a turkey's survival. Poultry need to be able to drink water at all times. The turkeys eat a corn, soybean and mineral mix. The feed is made at a local feed mill. We have a high level of biosecurity on our farm to protect the turkeys. Cars and trucks are washed when entering and exiting the farm. My wife and I even wear special clothing in the barns to protect the turkeys too.

There is a hatchery twenty miles from our farm. When the turkeys hatch out of their eggs, they are sent to our farm. We get the chicks when they are less than a day old. We have four flocks every year. Each flock is 11,000 chicks. Once the turkeys are six weeks old we move them to a larger house. We keep the turkeys inside a large poultry house with controlled temperature. This keeps the turkeys healthy and our food safe. The turkeys are raised until they are 16 weeks old. A 16-week-old turkey is called a fryer. Hens are sold as whole birds. Toms are sold for deli meat and other cuts of meat too. Thanksgiving and Christmas holidays are a busy time for our farm!

In addition to being a farmer, I have served as a Missouri State Representative and have worked in many government jobs. My wife and I love to travel the country. We also like to spend time with our grandchildren. I enjoy my work because it's a family tradition that I'm proud to be a part of.

Sincerely,
Don Steen
Turkey Farmer



DECEMBER

Cranberries Overboard

Activity Description: Students will learn why cranberries float in water.



MATERIALS

- Styrofoam cups
- Whole cranberries (a handful per student)
- White board

Activity Steps

Activity Prep: Cut enough cranberries in half for each student to look inside.

Step 1: Ask students if they believe cranberries will sink or float when dropped into water. Graph on a whiteboard or large sheet of paper the number of students that think cranberries will float and the number that think they will sink.

Step 2: Hand out cups half filled with water to students.

Step 3: Hand out a handful of cranberries to each student.

Step 4: Have students drop cranberries in water. Ask students whether the cranberries floated or sunk.

Step 5: After asking processing question #1, pass around cranberries that have been cut in half. Have students identify the air pocket inside. Continue with processing questions #2 and #3.

Processing Questions

1. Why did the cranberries float? Explain that cranberries have air pockets in them. Because cranberries float, it makes them easier to harvest. Farmers fill cranberry bogs/fields with water the night before harvest so cranberries can float to the top of the water for easy picking.
2. Where do you think cranberries are grown? Listen for students to respond. Share with students that Massachusetts, New Jersey, Wisconsin and Oregon are top cranberry producers.
3. How do cranberries get to us? Listen for students to share that farmers grow them, they are taken to a grocery store/farmers' market/restaurant and we purchase them.

Extension Opportunity

Can you can a cran? Place buckets or cans on one side of the classroom and label with different point values. Challenge students to toss fresh cranberries into the cans to earn points. Reward students with a Craisin® snack!

Commodity
Cranberries

Featured State
New Jersey

Suggested Book
Time for Cranberries
by Lisl H. Detlefsen

Make a Snack!
Put peanut butter on celery and top with dried cranberries for an ants-on-a-log twist.



Meet a Farmer!

Jeff LaFleur

Dear Students,

My name is Jeff LaFleur. I am a cranberry farmer in Plympton, Massachusetts. I graduated from college with a degree in plant science. I worked in the cranberry industry for 20 years before becoming a farmer. In 2008 I bought a farm from a friend. Today, Mayflower Cranberries is a 112-acre farm with 24 acres of active cranberry bogs! Bogs are the beds of soil where cranberries grow.

Did you know that cranberries are native to America? Many believe that cranberries grow under water, but they do not! The bogs are actually dry during most of the season. Water is used to help with harvest and to protect the berries from the cold. Water also helps the cranberries grow. Cranberries need acid peat soil and sand too. Cranberry pests are fruitworms and fruit rot.

Each season there is something new going on at the farm. During the winter the vines are dormant to help the buds mature. They flower in June and start to develop fruit in July. In August, the cranberries are green. By September, they are red. We harvest in October. During harvest, the bogs are flooded. Water reels stir up the water. The cranberries float to the top because there are air pockets inside cranberries. The vines stay rooted in the soil. The cranberries are put on a truck and shipped to Ocean Spray. Ocean Spray is a grower cooperative, which means that the farmers own the business together. Most of our cranberries are sold as Craisins®. The rest are turned into cranberry sauce and concentrate.

Our goal is to take good care of the farm for next generations. I like to be outdoors and value time with my family. I'm proud of the fact that we produce food!

Sincerely,

Jeff LaFleur
Cranberry Farmer



Jeff LaFleur
Cranberry Farmer, Massachusetts



U.S. map

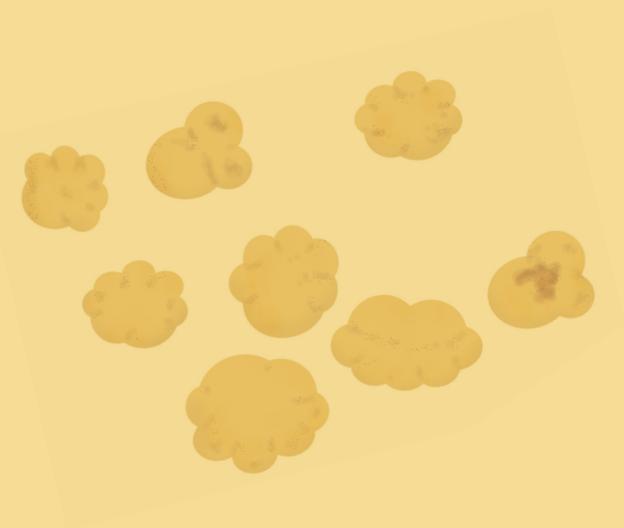


Hang in the classroom for year-round learning!

Stickers for the map

2 for each month—the commodity and the farmer

6 extra stickers to compliment the lesson, e.g., give as prizes



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