What's Growin' On?

24th Edition

FARM TO SCHOOL ADVENTURES

FREE classroom sets for California teachers!

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California Foundation for Agriculture in the Classroom

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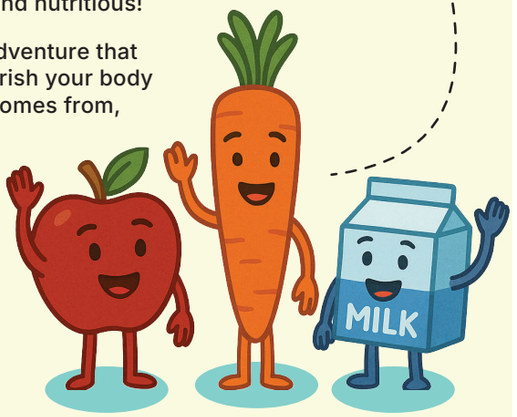
DISCOVER THE JOURNEY FROM FARM TO SCHOOL

Imagine the path your food takes, from a California farm to your school cafeteria tray.

Every apple, carrot, and cup of milk has a story to tell. It's a story of farmers who care for the land, trucks that travel across the state, and cafeteria teams who make sure every meal is fresh and nutritious!

Farm to School is more than just a program, it's an adventure that connects you to the people and places that help nourish your body and your mind. When you explore where your food comes from, you're discovering the hard work, science, and creativity that make California agriculture thrive. So, open your eyes, ask questions, and get ready to dig into the journey from farm to school!



READ ALL ABOUT IT

Welcome to the 24th edition of *What's Growin' On?*

Produced annually by the California Foundation for Agriculture in the Classroom, *What's Growin' On?* has inspired students for more than two decades to explore the many ways agriculture touches our daily lives.

This year's edition, *Farm to School Adventures,* takes you on a journey through California's food system, from the farms where food is grown to the kitchens and cafeterias where it's enjoyed. Along the way, you'll learn how fruits, vegetables, grains, and animal products make their way from the field to your plate, and how school gardens, nutrition teams, and local farmers all play a part in keeping students healthy and ready to learn.

You'll also discover how cooking, tasting, and growing food can help you make smart choices for your body and the planet. Whether you're planting seeds, sampling new flavors, or tracing food back to its roots, each activity will help you see how agriculture helps your school and community thrive.

Developed by educators and reviewed by agricultural experts, *What's Growin' On?* aligns with California's Academic Standards, including Common Core and Next Generation Science Standards, for grades three through eight.

We hope this edition inspires you to dig into the world of farm to school and discover just how fresh, fun, and fascinating agriculture can be!

Each year, Ag in the Classroom hosts California Farm Day, giving students an exciting virtual journey into California agriculture. Agriculture is more than crops and animals—it includes science, technology, mechanics, and many steps that help bring California's 400 commodities from the farm to your cafeteria tray.

Through pre-recorded segments and live interactive hosts, classrooms can explore how food is grown, harvested, and prepared.

Scan the QR code to start your farm to school adventure!

THE FARMERS WHO FEED US

Activity

Have you ever wondered who grows the food you eat every day? Farmers and ranchers in your community work hard to produce the fruits, vegetables, nuts, grains, and proteins that end up on your plate. The people behind your food play an important role in feeding schools, families, and communities.

Why can't you tell a secret on the farm?

Because the corn has ears!

HOW MANY PEOPLE DOES ONE FARMER FEED?

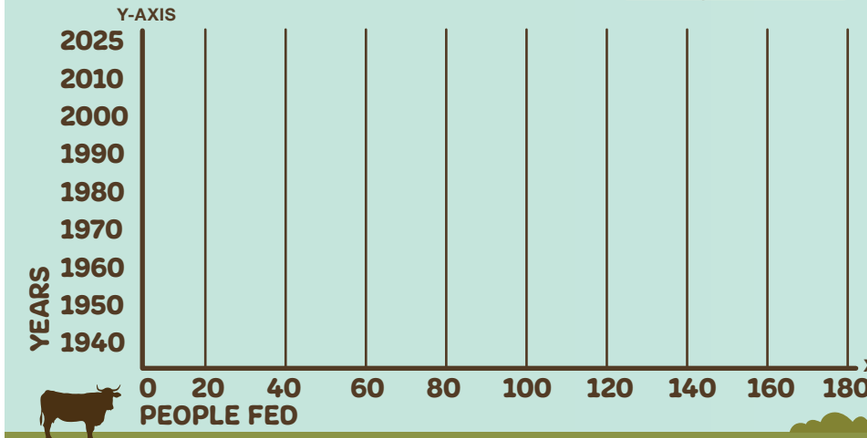
Did you know that America's farmers are some of the most productive in the world?

Use the chart and data to create a line graph showing how the number of people fed by a single farmer has changed over the past 85 years.

As you work, think about why the numbers increased. What inventions, tools, or farming practices might have helped farmers produce more food?

Standards: CC Math: 3.MD.B.3, 5.MD.B.2, 6.SP.B.5

Year	People Fed
1940	19
1950	27
1960	46
1970	73
1980	115
1990	129
2000	139
2010	155
2025	169



FARMING THROUGH TIME

Learn about the people and technologies that have helped farmers grow more food using fewer resources. Use research tools to find important moments in agricultural history. Then, on a separate sheet of paper, create a timeline that shows at least five major events in California's farming history.

Here are a few examples to get you started:

1962: UC Davis researchers invented a **mechanical** tomato harvester and created a stronger tomato that could be picked by machine.

1888: The first long-distance shipment of refrigerated **freight** traveled from California to New York, allowing fresh produce to be sold far from where it was grown.

1970: California growers and researchers began testing water-saving **drip irrigation** in orchards, vineyards, and vegetable fields.

Standards: CA HSS: Analysis Skills 1-5: CST 1, Analysis Skills 6-8: CST 1; CC ELA: RI.3.5, RI.5.7

PLAY A GAME!

Explore the exciting world of agriculture through interactive games on My American Farm! Build farm equipment, organize the barn, and travel across the country as you learn how farmers grow food and care for the environment.

Scan & See

MEET THE GROWER

Bai Thao and her family **immigrated** to the U.S. from Thailand. For the past ten years, she has been growing herbs and vegetables on her 40-acre farm in Sanger, California. Bai grows a variety of culinary herbs, including lemongrass, cilantro, Thai basil, and mint.

Did You Know?

Less than 2% of Americans work on farms today, but those farmers help produce food for the other 98% of the country (and other countries, too!).

Sources: American Farm Bureau Federation's Food and Farm Facts (fb.org); United States Department of Food and Agriculture (usda.gov); Tracking the History of California Agriculture (ca.stateaghistory.org)

FRUIT FRENZY:
BITE INTO SOMETHING NEW!

Every day in the cafeteria, you'll find a rainbow of fresh fruits ready to enjoy. Maybe you always grab your favorites like strawberries, kiwi, jicama, or apples. But have you ever tried something new? California grows all kinds of fruits, and some of them might surprise you. Let's take a closer look at a few that deserve to make it onto your tray.

What do you call an apple that plays the trumpet?

A tooty fruity!

CALIFORNIA'S FRUITS ARE STARS ACROSS THE U.S.

California is home to some of the nation's most famous fruits. California is the leading grower of persimmons, figs, and dates in the U.S. These fruits may not always appear in your lunch line, but they're true California stars!

Delicious Dates

Most of California's date orchards are found in the Coachella Valley. There are many different kinds of dates, including brown Medjools and golden Deglet Noors. Dates grow on tall palm trees and ripen in the warm desert sun before being harvested in the fall.

Fantastic Figs

Figs have been grown in California since the 1800s. They can be eaten fresh or dried and come in several varieties, including Mission, Brown Turkey, Kadota, and Tiger. Fig trees thrive in the state's warm, dry summers and mild winters.

Perfect Persimmons

Persimmons were first brought to the United States in the mid-1800s and are mainly grown in Fresno, Tulare, and San Diego counties. The two most common types are Hachiya, which is soft and sweet when fully ripe, and Fuyu, which can be eaten while still firm.

CAST YOUR VOTE!

California grows lots of unique fruits, but some don't make it to every cafeteria. Which one should get the VIP treatment at your school? Scan the link and cast your vote for your favorite!

Scan & See

Did You Know?

Many school cafeterias ask students, staff, and community members for ideas when planning the menu. Is your school district one of them? Now might be a *berry* good time to find out!

Activity

FRUIT FAME

Your cafeteria already offers a variety of fruits, but there are many more just waiting to be discovered! Pick a fruit to honor and give it a place in the spotlight! Create a "Fruit Hall of Fame Card" for your chosen fruit with:

1. The fruit's name
2. A drawing or photo
3. How it came to California
4. Where it grows in California (find the location on a map!)
5. One way it helps your body stay strong and healthy

Once your card is ready, add it to your classroom's California Fruit Hall of Fame display and see which fruits become stars!

Standards: CC ELA: W.3.7, W.4.7; HSS Analysis Skills (Grades K–5) CST 4

RECIPE

California Date Shake

Serves 2

Adapted from NY Times Cooking

INGREDIENTS

8 pitted Medjool dates, coarsely chopped

½ cup very cold milk

2½ cups vanilla ice cream

INSTRUCTIONS

Wash your hands with soap and water.

In a blender, blend dates and milk until smooth and very frothy.

Add ice cream and pulse a few times, until just blended.

Pour the shake into a glass. Enjoy!

Activity

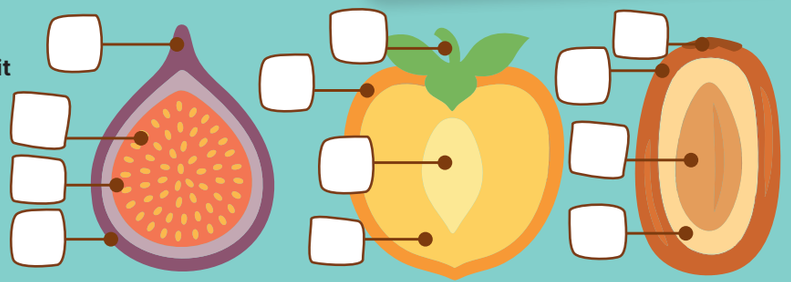
Do You Know Your Fruit Parts?

Most fruits have seeds inside. Around the seeds is the flesh, which is the part we eat. The skin covers the outside of the fruit to protect it from animals and weather. Fruits stay attached to the plant by a stem, which helps move water and nutrients from the roots to the fruit.

Standards: NGSS: 3-LS1-1; CC ELA: RI.3-4.7, RI.6-8.4

Label the parts of the fruit with the correct number:

1. Seeds/Pit
2. Flesh
3. Skin
4. Stem



Sources: Specialty Produce (specialtyproduce.com); CA Department of Education (cde.ca.gov/ls/nu/sn/caffvp.asp#allowfruits); California Date Commission (californiadates.com); California Figs (californiafigs.com)

VEGGIES: TURNING "UM..." INTO YUM!

What do carrots like to drink?
Root Beer!

Fresh, colorful vegetables are a big part of the cafeteria's menu every day. From crunchy carrots to leafy greens, these veggies help turn an ordinary lunch into a plate full of color and nutrients. In the lunch line, you might find veggies in salads, soups, sandwiches, or as sides—each one a chance to explore new flavors and discover what you like best!

HOW IT'S MADE: BABY CARROTS

Check out this behind-the-scenes video from Western Growers to see how baby carrots are made! They don't grow tiny on their own. These snacks start as full-size carrots on the farm, then get cut down to the bite-sized pieces we love to eat.

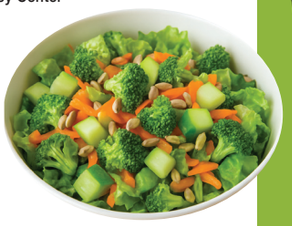
Scan & See

RECIPE

Plant Parts Salad

Serves 8

Adapted from the Food Literacy Center



INGREDIENTS

½ cucumber
½ stem celery
¼ broccoli head
½ lettuce head
1 carrot
1 tbs roasted sunflower seeds
¼ cup dressing

INSTRUCTIONS

Wash your hands thoroughly with soap and warm water.

Wash all produce under cool water.

Using a plastic knife, cut the cucumber, celery, and broccoli into 1" pieces.

Chop the lettuce with a plastic knife or tear it by hand.

With the help of an adult, grate the carrot.

Add all the vegetables and sunflower seeds to a large mixing bowl.

Pour in ¼ cup of your favorite dressing.

Toss the salad with tongs to combine. Serve and enjoy!

Activity

SIZE IT UP!

How much of each ingredient do you need for 24 students? *Hint: The original recipe is for 8 people. If we want to serve 24, that's 3 times more.*

Standards: CC Math: 4.NF.B.4.C, 5.NF.B.4, 5.NF.A.1, 6.RP.A.3.D; Health Education: Grade 8 1.8.N

Activity

PLANT PART PUZZLE

PLANT PARTS WORD BANK

ROOTS: Absorb water and **nutrients** from the soil.

STEMS: Support the plant and move water and food.

LEAVES: Use sunlight to make food through **photosynthesis.**

FLOWERS: Produce seeds that become new plants.

FRUITS: Protect seeds and help spread them.

Standards: NGSS: 4-LS1-1; CC ELA: RI.3-8.4

Vegetables come from different parts of plants—roots, stems, leaves, flowers, and fruits. Each part has a job: roots take in water, stems carry food, leaves make energy, flowers make seeds, and fruits protect them. Draw a line to each veggie on this wacky plant to its plant part.

Activity

CARROT QUEST

After watching the video, test your knowledge. Number the steps in the correct order to show how baby carrots are made.

____ Carrots that are too large are taken out.

____ Finally, carrots are weighed, bagged, and sent to grocery stores or school cafeterias.

____ Carrots are cut into 2-inch pieces, then sorted by size.

____ The pieces are peeled by rough stone rollers and polished with smooth stone rollers.

____ The carrots arrive at a processing facility.

____ First, carrots growing in the field are pulled from the soil by mechanical harvesters.

____ They are washed, and stems are removed.

Standards: CC ELA: RI.3.3, RI.4.5, RI.5.7

Did You Know?

Some foods we call vegetables are actually fruits! Fruits are the part of a plant that grows from flowers and contains seeds. That means tomatoes, bell peppers, corn, zucchini, pumpkins, and avocados are all fruits because they have seeds inside. Can you think of other fruits that we often call vegetables?

Sources: Food Literacy Center (foodliteracycenter.org); UC Cooperative Extension Vegetable Research and Information Center (vric.ucdavis.edu); Institute of Culinary Education (ice.edu)

BARN TO SCHOOL

Ever wonder where your lunch comes from? Many of the foods served at school, like milk, cheese, eggs, and meat, come from animals raised on farms and ranches. These animals, called **livestock**, include cows, pigs, chickens, turkeys, goats, and sheep. Each one plays an important role in providing healthy, protein-rich foods that make their way from the barn to your school cafeteria.

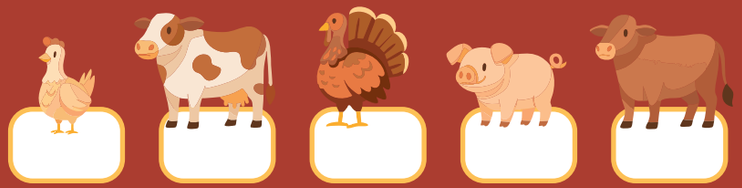
SOURCE DETECTIVE

Activity

Many everyday foods come from animals. Your mission is to figure out which product comes from which animal.

INSTRUCTIONS

Look at the animals below, then examine the list of food products. Next to each animal, write the letter(s) of the product(s) that come from it. For example, since eggs come from chickens, you would write "h" in the box below the chicken.



PRODUCTS

A. Steak
B. Chicken Nuggets
C. Ham
D. Yogurt
E. Milk
F. Drumstick
G. Sausage
H. Eggs
I. Deli Meat
J. Hamburger
K. Bacon
L. Turkey (whole)
M. Cheese
N. Meatballs

Standards: CC ELA: RI.4.7; NGSS: 5-LS1-1

RECIPE

Avocado and Egg Smash

Serves 2

INGREDIENTS

½ ripe avocado
1 hard-boiled egg
1 medium dill pickle
1 tablespoon Dijon mustard
¼ teaspoon everything bagel seasoning
2 pieces toasted bread

INSTRUCTIONS

Wash your hands with soap and water.
Scoop and mash the avocado into a small bowl.
Combine the diced egg, Dijon mustard, and diced pickle.
Sprinkle in the everything bagel seasoning and stir gently.
Spread the mixture onto the toasted bread.

Did You Know?

There are approximately 373 million egg-laying hens in the United States, producing about 109 billion eggs annually. This means each hen lays an average of **292 eggs per year!**

WHAT'S INSIDE AN EGG?

Activity

Like all living things, eggs have special parts that protect what's inside and provide nutrition for us. Use these descriptions to label the parts of an egg.

Albumen: Also called the egg white. It's clear and packed with protein.

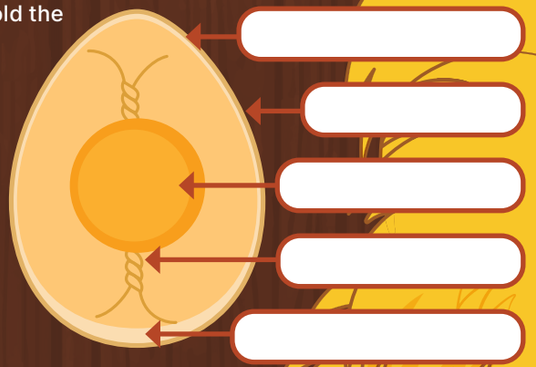
Air Cell: A small pocket of air at the wide end of the egg.

Chalazae: Twisted, string-like parts that hold the yolk in place in the middle of the egg.

Shell: The hard outer covering with thousands of tiny holes called pores. It protects the egg.

Shell Membrane: Two clear, strong layers just inside the shell that keep the egg safe.

Yolk: The yellow center that holds vitamins and minerals such as iron, vitamins A and D, and calcium.



Standards: NGSS: 4-LS1-1, MS-LS1-4; CC ELA: RI.3.7, RI.4.7

Sources: American Egg Board (www.incredibleegg.org); USDA ESMIS (esmis.nal.usda.gov)

INSIDE THE BARN

Activity

Farmers work to keep their livestock safe, healthy, and comfortable. Healthy animals grow well and produce the food we eat, like milk, eggs, and meat. Let's explore how farmers create the right environment for their livestock.

INSTRUCTIONS:

Choose one animal: cow, pig, chicken, turkey, or goat.

Research how farmers create an environment that keeps their animals safe, healthy, and comfortable.

Consider:

- Shelter
- Food
- Temperature
- Bedding
- Water
- Space

Draw your animal in its barn or pen and label the features that help it stay healthy.

Write 2–3 sentences about the animal you chose. Describe what it needs to stay healthy, grow, and produce the food we eat.

Standards: NGSS: 3-LS1-1; CC ELA: W.3-4.7

Answers: chicken (b, f, g, h, i, n); pig (c, g, i, k, n); dairy cow (d, e, m); turkey (f, g, i, l, n); beef cattle (a, g, i, j, n)

GO FOR GRAINS!

Whole grains are packed with **fiber** and nutrients that help keep your body fueled, your **digestion** running smoothly, and your energy steady through the day. In the cafeteria, you might find whole grains in breads, tortillas, rice, pasta, oatmeal, or even popcorn. Each one helps your body get the fiber and nutrients it needs to grow and stay healthy.

RECIPE

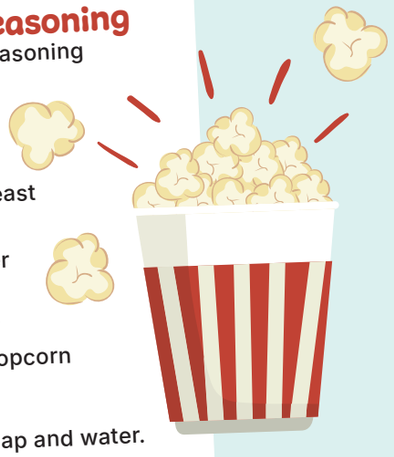
Ranch Popcorn Seasoning

Yields 3 tablespoons of seasoning

Adapted from the Food Literacy Center

INGREDIENTS

- 1 tablespoon dried dill
- 1 tablespoon nutritional yeast
- 1 teaspoon dried oregano
- 1 teaspoon dried coriander
- 1 teaspoon garlic powder
- ¼ teaspoon white pepper
- 1 heaping bowl popped popcorn



INSTRUCTIONS

1. Wash your hands with soap and water.
2. Make the popcorn and set it aside.
3. Combine the herbs and seasonings in a small bowl.
4. Sprinkle over the popcorn and enjoy!

Standards: Health Education: Grade 5: 7.2.N, Grade 7/8: 1.8.N

Where does wheat sleep?

In the breadroom!

Activity

GREAT GRAINS WORD SEARCH

T	E	F	S	G	R	I	T	S	E	I	N	P	M	H
E	O	S	H	Z	V	H	A	D	F	K	C	U	A	V
W	Y	B	Q	J	G	F	R	Q	Q	U	I	N	O	A
B	U	L	G	U	R	R	S	S	P	U	T	F	Y	K
R	Z	T	P	A	S	T	A	K	Q	D	A	K	B	R
I	W	K	O	T	M	D	O	L	N	R	D	R	T	N
C	M	F	U	R	D	V	A	Y	R	S	T	V	K	D
E	Y	L	E	Z	T	S	T	H	N	T	B	N	W	R
B	O	C	N	V	S	I	S	T	P	W	T	M	H	S
R	B	F	E	J	X	A	L	K	U	N	P	I	E	S
E	Z	D	A	R	M	A	G	L	K	Y	N	Y	A	W
A	L	D	O	U	E	Z	C	D	A	F	X	G	T	R
D	Q	O	O	K	H	A	X	E	A	S	A	W	D	C
A	G	N	O	T	S	X	L	B	S	X	F	A	W	Z
C	K	U	W	B	L	Q	Q	X	A	P	P	C	M	V

These grains help power your day! Find each one hidden in the puzzle and see how many you already know from the cafeteria.

WHEAT	PASTA	GRITS
RICE	TORTILLAS	BULGUR
OATS	QUINOA	
CEREAL	BREAD	

Activity

FROM FIELD TO FOOD

Grains are an important part of what we eat every day, from breakfast to dinner. Each one has its own story about how it's grown, harvested, and made into the foods we love. Look at the list of grains below. For each one, write down a food that's made from it.

WHEAT → _____

RICE → _____

OATS → _____

CORN → _____

RYE → _____

Standards: CC ELA: W.3.7, W.4.7, RI.3.7

Choose one grain. Research how it's grown, harvested, and made into food. On a separate paper, write or draw the steps showing its journey from field to table.

Think you know your grains?

Take the Grains Group Quiz to test your food smarts! Learn how whole grains help your body stay strong, give you energy, and keep you feeling great all day.

Scan & See

ALL ABOUT GRAINS

There are many different kinds of grains. Here are four grains you might find in the cafeteria!

Wheat

Wheat grows well in California because the weather is mild. Farmers can plant it almost any time of year, and they grow different varieties to use in foods people eat.

Rice

Rice grows in flooded fields called paddies. California's **climate** supports rice production in the Sacramento Valley.

Corn

Corn grows on tall stalks and needs warm temperatures and lots of sun. There are different kinds of corn: sweet corn is eaten on the cob, and flint corn has hard kernels used to make foods like tortilla chips. Corn is also used to feed animals and make fuel.

Rye

Rye is a **hardy** grain that can grow in dry or cold places. It is often planted in the fall and can survive winter weather. People use rye to make foods like bread, crackers, or cereal.

Did You Know?

Some grains, like wheat and barley, have been eaten for more than 10,000 years. That means people were crunching cereal before there were even pyramids!

Sources: California Grains (goldenstategrains.com); The Nutrition Source (nutritionsource.hsph.harvard.edu)

THE JOURNEY FROM FARM TO TRAY

Why shouldn't you put ketchup on your shopping list?

Because then you won't be able to read it, silly!

How does food make its way onto your school lunch tray? It takes a team of farmers, ranchers, drivers, chefs, and cafeteria staff working together in what's called a farm to school **supply chain.** This is the path food travels—from growing in a field or being raised on a ranch, to being washed, cooked, delivered, and finally served to you. Let's explore the journey your favorite foods take before they reach your tray!

FOOD HUB

A central location where foods from many farms and ranches are collected and sorted by school or district orders. Food hubs help smaller farms and ranches reach more students.

Did You Know?

Many foods in the U.S. travel around 1,500 miles before reaching your plate. Choosing foods grown nearby means they travel fewer miles, stay fresher, and create less pollution.

TRUCK (TO FOOD HUB)

Foods from farms and ranches are transported to the food hub, where deliveries are checked in and organized.

RANCH

Ranchers focus on raising livestock for milk, eggs, meat, and other animal products.

FARM

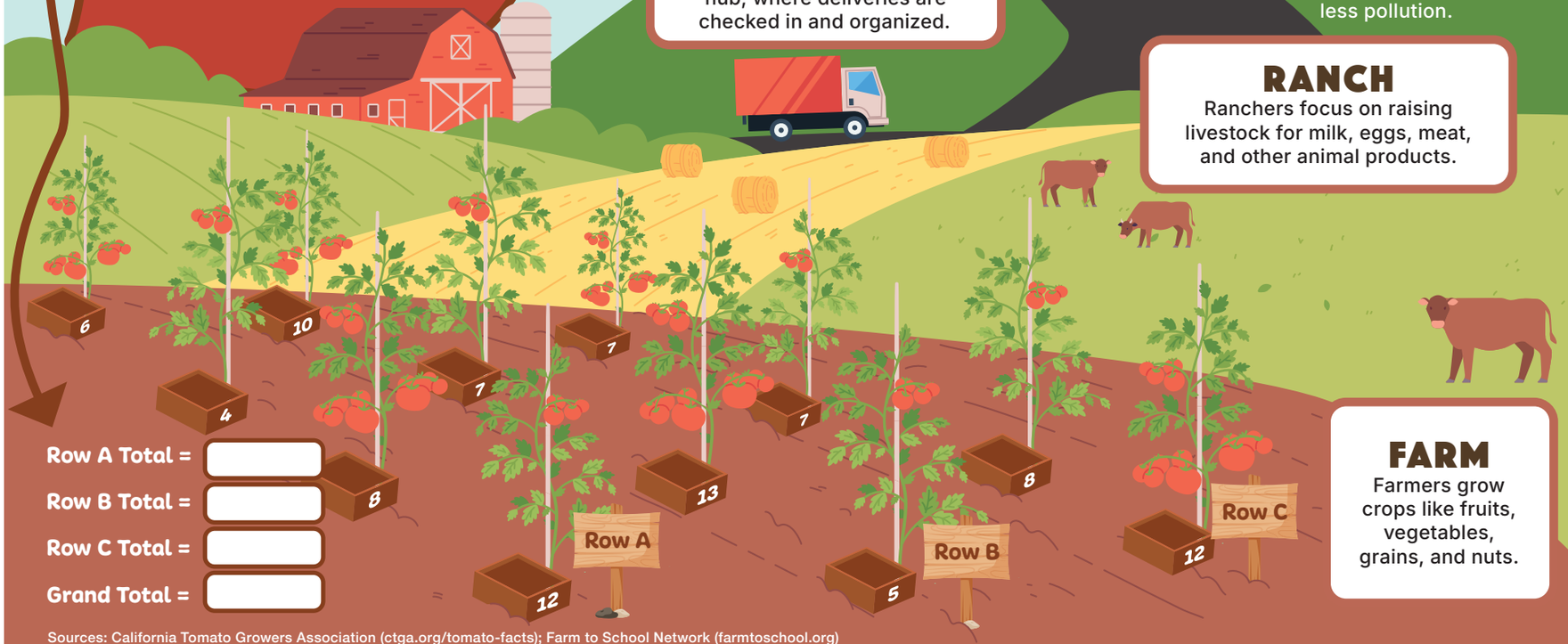
Farmers grow crops like fruits, vegetables, grains, and nuts.

Activity: TOMATO HARVEST MATH

Fresh tomatoes are grown in rows and picked by hand. Find the tomato patch below. Follow each row and collect the flats along the way, adding up the total tomatoes picked in the row.

Then, add all the rows together to find out how many tomatoes were harvested altogether.

Standards: CC Math: 3.OA.A.2, 3.NBT.A.2, 4.NBT.B.4



Row A Total = _____

Row B Total = _____

Row C Total = _____

Grand Total = _____

Sources: California Tomato Growers Association (ctga.org/tomato-facts); Farm to School Network (farmtoschool.org)

Scan & See

Ketchup is a favorite in the cafeteria, but have you ever wondered where it comes from? You might be surprised to learn that most of the tomatoes used to make ketchup are grown right here in California. **Scan the code and take a trip to a California tomato farm to see where it all begins.**

Activity

KEEP LUNCH LOCAL

Local foods are grown or produced close to where you live. Look at the foods on the lunch line below: Circle the foods you think could be grown in California, then choose one food and explain why you think it is produced locally. Be ready to discuss your ideas with the class.

A food that is local to my community:

_____

Why I think it's local:

- I've seen it at the grocery store with a California label.
- I've seen it growing in my neighborhood.
- It grows in a community garden.
- I've seen it at a farmers market.
- Other: _____

Standards:CC ELA: RI.3-5.1, SL.3-5.1

TRUCK (TO CENTRAL KITCHEN)

Organized orders are loaded onto trucks and delivered to the central kitchen.

THINKING LOCALLY

Local foods are grown or produced close to where you live. To decide if something is local, think about these questions:

- ☐ Can this food grow in California's weather?
- ☐ Have you seen farms nearby that grow this food?
- ☐ Is this food something California is known for growing a lot of?

If the answer is yes, it might be local!

CENTRAL KITCHEN

Staff prepare, cook, and assemble meals for schools. Central kitchens make sure foods are safe, nutritious, and ready to serve.

Note: *This is just one example of how Farm to School can work. Every community is different, and food can travel in many ways. The goal is always to connect students with local food.*

TRUCK (TO SCHOOL CAFETERIA)

Meals and ingredients are transported to your school. They may arrive fresh, frozen, or chilled, depending on the product.

Activity

MY FARM TO SCHOOL ADVENTURE

Imagine you are a fruit, vegetable, grain, or nut harvested on a California farm.

Write a narrative about your journey from the field to a student's cafeteria tray. Describe each step along the way using clear details and a logical sequence. Where does your adventure begin? Who helps you move along the supply chain? Where do you end up, and what happens in between?

Standards: CC ELA: W.3-8.3

SCHOOL CAFETERIA

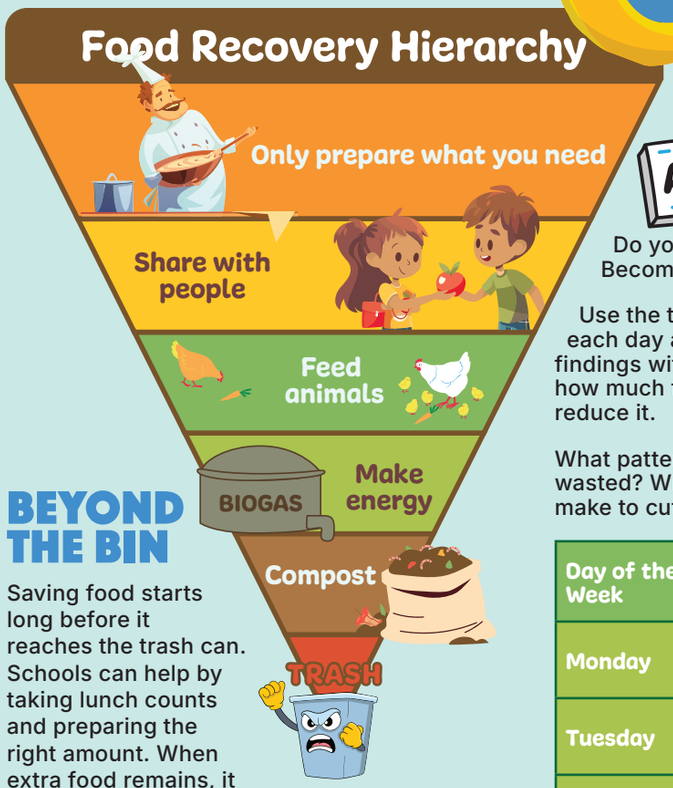
Students enjoy the foods that move through the farm-to-school supply chain, from farms and ranches all the way to their tray.

LESS WASTE, MORE TASTE

Think of your cafeteria. How many garbage cans are there? What kinds of food do students usually throw away? Is there a **share bin** for unopened milk cartons, fruit, or snacks? Every day, schools across California toss out food that could have been eaten, shared, or composted.

Every bite counts! Cutting down on food waste means less trash, more savings, and more meals for those who need them.

Why did the banana go to the cafeteria compost bin?
It wasn't peeling very well!



BEYOND THE BIN

Saving food starts long before it reaches the trash can. Schools can help by taking lunch counts and preparing the right amount. When extra food remains, it can be shared, donated, or composted instead of thrown away. The **Food Recovery Hierarchy** reminds us to reduce waste first, share what's still good, and recycle the rest through composting.

Activity CAFETERIA HELPERS

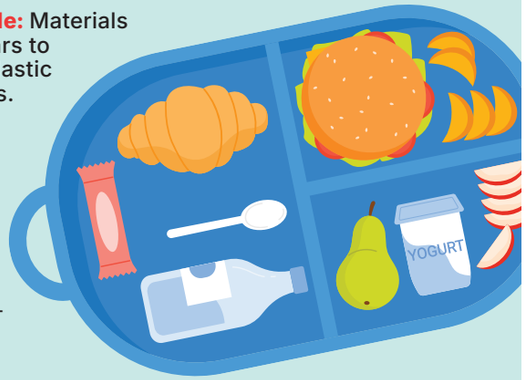
Be a helper in your school cafeteria by finding ways to cut down on waste! Take a close look at your lunch tray and decide what belongs where.

Most waste can be divided into two groups:

Biodegradable: Materials that break down naturally over time, like fruit, vegetables, or paper.

Non-biodegradable: Materials that take many years to break down, like plastic straws or wrappers.

Circle all the non-biodegradable items. Then, write one way your school could reduce waste from these items.



Standards: NGSS: 4.ESS3-1, 5-ESS3-1

Activity FOOD WASTE DIARIES

Do you know how much food is wasted at your school? Become a food waste specialist and track it for a week!

Use the table below to record what food you throw away each day and why. At the end of the week, combine your findings with your classmates to get a big-picture view of how much food is wasted at school and brainstorm ways to reduce it.

What patterns do you notice? Which foods are most often wasted? What small changes could your class or cafeteria make to cut down on waste?

Day of the Week	Food Item(s) Thrown Away	Reason (didn't like it, not enough time, too full, etc.)
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		

Standards: NGSS: 3-5-ETS1-1, 5-ESS3-1, MS-ESS3-3; CC ELA: W.3–8.7, SL.3–8.1

Did You Know?

Every year California schools and universities produce over 560,000 tons of food waste. That's equal to about 45,000 school buses!

Scan & See

Learn about the impact of food waste on the environment in this animated video from PBS. After watching, pick one of the ways suggested in the video to reduce food waste.

Then think: How could you make that happen in your home, school, or community? Share your ideas with your classmates!

Standards: NGSS: 4-ESS3-1, 5-ESS3-1

Sources: U.S. Environmental Protection Agency (epa.gov); CalRecycle (calrecycle.ca.gov)

A HEALTHY HARVEST

A healthy harvest fuels a healthy you. Filling your plate with fruits, vegetables, grains, protein, and dairy gives your body the energy it needs to grow and stay strong. Staying active by running, playing, and moving every day keeps your muscles and mind ready for anything. Good food and regular movement help you make the most of every season.

MYPLATE

To stay strong and healthy, our bodies need fuel from different kinds of foods. Think of your plate like a puzzle, with each piece important. A balanced plate includes:

Vegetables: Vary your veggies: broccoli, mushrooms, or carrots

Grains: Make half your grains whole grains: rice, tortillas, or pasta

Protein: Vary your protein routine: eggs, beans, or meat

Fruits: Focus on whole fruits: grapes, apples, or berries

Dairy: Low-fat or fat-free milk or yogurt

Choose your favorite food from each group and research what it looks like growing on the farm. On a separate sheet, draw how that food grows. For example, carrots grow underground with leafy green tops.

Standards: CC ELA: W.3.7-8.7; Health Education: Grade 4: 3.1.N, 5.1.N; Visual Arts: 4.VA:Cr2.3

Did You Know?

People once believed sports drinks were healthy for kids all the time, but unless you're exercising for more than an hour, water is usually better. Some sports drinks have more sugar than a candy bar!

Scan & See

Play the MyPlate Match Game from the Dairy Council of California. Test your food IQ by sorting foods into the right MyPlate groups, then fill the activity clock with ways to stay active. Learn how to build a balanced plate and keep your body moving!

Check Your Tank!

Before you fill your plate in the cafeteria or at home, take a moment to check your tank—just like a farmer checks the fuel in a tractor before heading to the field. Are you running on empty, half full, or already full enough?

Try this at your next meal: Start with just enough food to match your hunger. Halfway through your meal, check your tank again. Are you still hungry or feeling satisfied?

Standards: Health Education: Grades 7/8: 4.1.N

What's a farmer's favorite exercise? **Calf raises.**

60 minutes of movement

Kids should aim for 60 minutes of physical activity every day.

FARMER FITNESS CHALLENGE

Farmers stay strong by moving their bodies every day, and you can too! Try this circuit of fun, farm-inspired exercises.

Hay Bale Lifts
Squat, then "lift" a hay bale to your chest, press it overhead. Repeat for 40 seconds.

Chicken Chasers
Run around a small space for 30 seconds, chase those chickens!

Tractor Drive
Sit, lean back holding an imaginary wheel, twist side to side like you're steering. Hold for 30 seconds.

Put Your Boots On
March in place, lifting your knees high, like you're putting on your boots. Keep marching for 40 seconds.

Shovel Scoops
Squat, scoop soil with an invisible shovel, toss over your shoulder, switching sides for 30 seconds.

Sources: USDA MyPlate (www.myplate.gov); Dairy Council of California (dairycouncilofca.org)

MATH QUESTIONS

If you do the Farmer Fitness Challenge three times, how many minutes did you exercise? _____ Min.

After finishing your three circuits, how many more minutes do you need to move to reach 60 minutes? _____ Min.

What fun activity will you do to reach your full 60 minutes of movement today?

_____

Standards: Health Education: Grade 4: 1.8.N, 6.2.N, Grade 5: 7.4.N, Grade 7/8: 1.14.N; CC Math: 3.NBT.A.2, 4.NBT.B.4, 4.MD.A.1, 5.MD.A.1

STAY SAFE! STOP GERMS

What do you call a plate of spoiled sausage?
A bunch of brats.

Staying safe in the kitchen isn't just about using tools the right way. It's also about preventing the spread of **microscopic germs.** These tiny troublemakers can hide on counters, hands, and food if you're not careful. Get ready to test for germs, spot safety mistakes, and discover how to outsmart germs so your kitchen stays clean and your food stays safe.

Did You Know?

More than 200 kinds of illnesses can spread through food. The good news? You have the power to stop them by practicing safe cooking and cleaning habits.

Scan & See

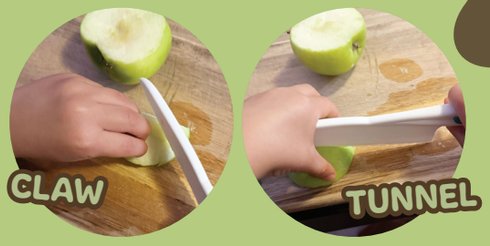
Did you know you can't see, smell, or taste the germs that cause **foodborne illness?**

Watch this video to discover simple tips and tricks to stop those invisible germs in their tracks and keep your kitchen safe and squeaky clean!

Complete this activity after watching the Scan & See video.

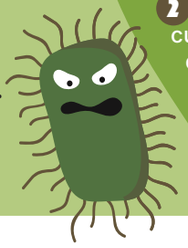
SHARPEN YOUR KNIFE SKILLS

1. **Hold your knife safely:**
Use a claw or tunnel grip to protect your fingers while holding the food.



2. **Stay focused on cutting.**
3. **Keep the knife tip on the cutting board.**
4. **Always use a sharp knife.**

Safety Tip: Do not open the sandwich bags once the bread is sealed inside. Mold can release **spores** that shouldn't be breathed in.



Activity

KEEP YOUR SCENE CLEAN

Look at the picture carefully. How many ways can you see food being handled safely or unsafely?

Circle the safe practices.

Cross out X the unsafe practices.

Think and Write:

On a separate piece of paper, name one way to stop germs in the kitchen. Why does it help?

Standards: Health Education: Grade 4: 1.4.N, 1.5.N, Grade 5: 1.5.N, 7.2.N, Grades 7/8: 1.4.N, 7.2.N; CC ELA: SL.3.2, SL.4.3, SL.5.2

Activity

FIND THE HIDDEN GERMS

Germs are tiny and invisible, but they can make us sick if they get into our food. Mold is a type of germ that grows where it's warm, moist, and has food. In this experiment, you'll transfer germs from a surface onto a slice of bread and watch how they multiply over time. Ready to test your kitchen?

You will need:

- Slice of bread
- Sandwich bag
- Permanent marker

Instructions:

1. Wash your hands thoroughly.
2. Pick a work surface to test, such as a cutting board, countertop, fridge handle, or drawer handle.
3. Take one slice of bread and gently wipe it across the chosen surface.
4. Place the bread slice inside a sandwich bag and seal it shut.
5. Use the permanent marker to label the bag with your name and the name of the surface you tested.
6. Tape the bags to a wall or lay them flat somewhere safe where they won't be disturbed but can be easily observed.
7. Over the next few weeks, watch the bread slices closely for any changes.

Reflection:

Compare your bread slices with your classmates'. Which surface had the most germs? How can you tell?

How does this activity help you understand why washing hands, wiping counters, and cleaning kitchen tools is so important?

Standards: NGSS: 5-LS2-1, MS-LS1-5; Health Education: Grade 4: 1.5.N, Grade 5: 7.2.N

Sources: Partnership for Food Safety Education (fightbac.org); Centers for Disease Control and Prevention (www.cdc.gov/food-safety)

FROM FIELD TO DESK

Your classroom can become a place to explore farms, orchards, and gardens, discovering where the foods you eat come from. Through taste tests, hands-on activities, and observing your classroom, you'll learn about local fruits, vegetables, and other farm products. Now is a great time to explore how farm-to-school connections bring learning to life!

How do scientists freshen their breath?
With experi-mints!

Scan & See

California grows more than 400 different crops! You can explore the **crops** grown near your school using this interactive map. See how agriculture connects to your community, and maybe even your school cafeteria!

Locate and select your county on the interactive map.

County: _____

Top crops in your County:

1. _____
2. _____
3. _____

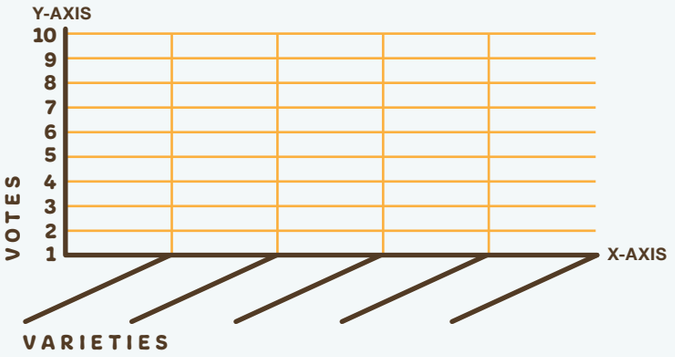
Optional: Choose one crop and write 2–3 sentences about how it grows and why it's important.

Standards: CA History-Social Science: 3.1, 3.3.2; CC ELA: RI.3-5.7

TASTE TEST TRACKER

Embark on a food adventure! Choose five different varieties of the same fruit or vegetable, like apples, citrus fruits, or tomatoes. Invite your friends, classmates, or family members to try a sample of each one and vote for their favorite.

Track your results and use the bar graph below to show which variety was the most popular. Which one came out on top and why do you think people liked it best?



Example: Fuji, Gala, Granny Smith, Honeycrisp, and Pink Lady apples!

Standards: CC Math: 3.MD.B.3, 6.SP.B.4

GROWING IN THE CLASSROOM

Growing crops in the classroom is easy and fun! Some seeds sprout quickly, giving you a front-row seat to watch plants grow.

Here's what you need:

- Chia seeds (or other fast-growing seeds)
- A cup
- Soil
- Water
- A sunny spot

What to do:

Fill your cup about two-thirds full of soil.

Sprinkle the seeds evenly on top.

Cover them with a thin layer of soil.

Give them a little water. Not too much!

Place the cup in a sunny spot.

In just a few days, you'll start to see tiny sprouts **emerging!** Measure your plants each day and record what you observe. Track how quickly they grow and think about how sunlight, water, and soil might affect their growth.

Standards: NGSS 3-LS1-1, 5-LS1-1; CC ELA: W.3-4.7

FARM TO SCHOOL SUPPLIES

Agriculture isn't just about food. It's all around you! Many of the things in your classroom started on a farm, in a forest, or in a field. Can you match each classroom item to where it comes from? **Draw a line to connect each classroom item to its source.**

Classroom Items:






Sources: Pigs · Trees · Sheep · Corn · Soybeans · Rubber Trees

Challenge: Choose one classroom item and research how it's made, from its natural source to the finished product.

Standards: NGSS: 2-PS1-1, 5-PS1-3; CC ELA: W.3–4.7

Did You Know?

There are about **2 million farmers** in the United States, and their work provides more than just food. Many of the things you use in class, like pencils, paper, and crayons, come from crops and animals grown on farms. That means farmers help fill your lunch tray and your desk!

Answers: Paper = Trees, Crayons = Soybeans, Sweater = Sheep, Eraser = Rubber Trees, Paint Brushes = Pigs, Glue Stick = Corn

Sources: Delaware Farm Bureau (defb.org); American Farm Bureau (fb.org)

SPROUTING SUCCESS AT SCHOOL

School gardens are amazing places where learning comes to life! You can dig, plant, water, and watch your seeds grow into fruits, vegetables, and flowers. Best of all, you get to taste what you helped grow and discover new foods along the way.

Scan & See: School Garden

Take a tour of the school garden at Radcliffe Elementary School in Watsonville, California. See what students there love most about gardening.

Did You Know?

You can grow plants without any soil at all! In hydroponic gardens, plants get their nutrients from water instead of dirt. Some schools use this method to grow fresh veggies and herbs right in the classroom or cafeteria.

Activity

TREE TIME!

Fruit trees are popular in school gardens because they provide fresh fruit and help students learn how plants grow. Different fruits are harvested in different seasons, and with planning, trees can produce fruit all year. Research when each fruit is harvested, then draw a line from each fruit to when it is in season.

Summer | Fall | Winter | Spring

Standards: CC ELA: RI.3-5.1; W.3-5.7

Tree Time Answers: Fall: apples; Winter: oranges and lemons; Spring: cherries; Summer: peaches and nectarines

Activity

DESIGN YOUR GARDEN BOX

If your school had its own garden, what would you grow? In the garden bed above, draw at least six different fruits or vegetables you'd like to plant. Next to each one, write the plant's name and how long it takes to grow from seed to harvest.

Need help? Do a little research to find out how long your favorite crops take to grow. Have fun planning your dream garden!

Extra Challenge: Divide the bed into 1-foot by 1-foot squares. Research the spacing requirements for each plant, then use your math skills to make sure each plant has enough space to grow.

Standards: NGSS: 3-LS1-1; CC ELA: W.3-4.7

5' 3'

What is the strongest vegetable?

A muscle sprout!

PLANT NUTRIENT MATH

Plants need **nutrients** to grow, stay healthy, and produce fruits or vegetables. Over time, soil nutrients run out, so gardeners add fertilizer to help plants grow. Some fertilizers must be mixed with water before use. Our pepper garden needs 1 tablespoon of fertilizer in 1 gallon of water, applied once a week for 16 weeks.

Here's your challenge:

How many cups of fertilizer will you need in total? _____
(Hint: ½ cup = 8 tablespoons)

How many gallons of water will you use in 16 weeks? _____

Each plant has produced 30 peppers. Look at the garden bed:

How many pepper plants do you see? _____

How many total peppers will you harvest? _____

Standards: CC Math: 3.OA.A.3, 3.MD.A.2, 4.MD.A.1, 4.OA.A.3, 5.NF.B.6, 5.MD.A.1

Plant Nutrient Math Answers: 1) 1 cup; 2) 16 gallons; 3) 10 plants; 4) 300 peppers

Sources: Food Corps (foodcorps.org); Growing School Gardens (growingschoolgardens.org); UC Master Gardener Program (ucanr.edu/program/uc-master-gardener-program)

GLOSSARY

Absorb:
To soak something up.

Climate:
The typical weather in a place, like how hot, cold, or rainy it normally is.

Circuit:
A group of exercises done one after another.

Crops:
Plants that farmers grow for food or other products.

Digestion:
How your body breaks down food so it can use the nutrients.

Drip irrigation:
A watering system that slowly drips water right to a plant's roots.

Emerging:
When a seedling first pushes up through the soil.

Fertilizer:
A material added to soil to give plants nutrients so they can grow better.

Fiber:
A nutrient in fruits, vegetables, and grains that helps your digestive system stay healthy.

Food Recovery Hierarchy:
A guide that shows the best ways to reduce food waste, from not wasting food in the first place to composting what's left.

Foodborne illness:
Sickness caused by eating food with harmful germs.

Freight:
Goods or products that are moved from one place to another, often by train or truck.

Harvest:
To pick or gather crops when they are ready.

Hardy:
Able to survive in tough conditions.

Immigrated:
When someone moves from one country to another to live there.

Livestock:
Farm animals raised for food or other products, such as cows, pigs, or sheep.

Mechanical:
Powered by machines instead of by hand.

Mechanical harvesters:
Machines that farmers use to pick or gather crops more quickly.

Microscopic:
So tiny that it can only be seen with a microscope.

Nutrients:
Substances in food and soil that help plants and people grow and stay healthy.

Photosynthesis:
How plants make their own food using sunlight, water, and air.

Pollution:
Harmful substances released into the air, water, or land that can harm people, plants, animals, or the environment.

Processing facility:
A place where food from farms is cleaned, sorted, or prepared before being packaged or sold.

Share bin:
A place in the cafeteria where students can safely share unopened or uneaten food instead of throwing it away.

Spores:
Tiny cells made by mold that can grow into new mold.

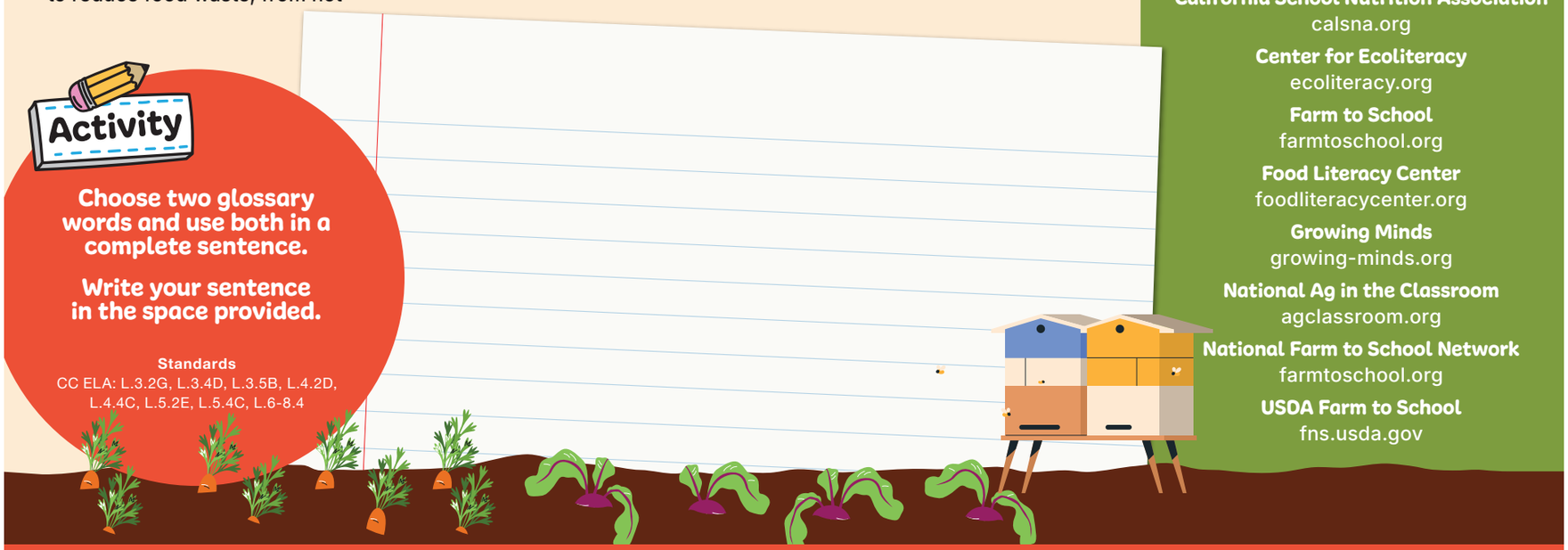
Supply chain:
The steps food goes through as it moves from the farm to the people who eat it, including growing, transporting, preparing, and serving.

Activity

Choose two glossary words and use both in a complete sentence.

Write your sentence in the space provided.

Standards
CC ELA: L.3.2G, L.3.4D, L.3.5B, L.4.2D, L.4.4C, L.5.2E, L.5.4C, L.6-8.4



What's Growin' On? 24th Edition

FARM TO SCHOOL ADVENTURES

- To find the answers to activities in this newspaper.
- To order additional free copies for your teaching team, classroom, or ag literacy event.
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FARM TO SCHOOL RESOURCES

Ag in the Classroom Farm to School
learnaboutag.org/farmtoschool

California Farm to School Program
cafarmtofork.cdfa.ca.gov

California School Nutrition Association
calsna.org

Center for Ecoliteracy
ecoliteracy.org

Farm to School
farmtoschool.org

Food Literacy Center
foodliteracycenter.org

Growing Minds
growing-minds.org

National Ag in the Classroom
agclassroom.org

National Farm to School Network
farmtoschool.org

USDA Farm to School
fns.usda.gov

Activity

MY TRAY, MY SAY

Student advocacy means speaking up for ideas that make your school a better place. In this activity, you'll practice student advocacy by sharing an idea for a new food you'd like to see added to the menu in your school cafeteria.

Draw the healthy food you want to see in your cafeteria

STEP 1 **Pick a Food:** Choose a healthy food item you'd like to see added to your cafeteria menu. Draw it in the space provided.

STEP 2 **Do Some Research:** Where is this food grown or produced? Can it be found locally? What time of year is it available?

STEP 3 **Ask Around:** Talk to classmates and gather their opinions about adding this food to the menu. Do most kids like this menu item? Why or why not?

STEP 4 **Write it Out:** Write a short persuasive paragraph explaining why your cafeteria should serve this food. Include at least three reasons why the food should be added to the menu.

STEP 5 **Stay Positive:** Respect the hard work of your cafeteria staff and focus on solutions, not complaints. When you're ready, share your ideas with the staff in a kind and thoughtful way.

Standards: CC ELA: W.3-8.1, W.3-8.7

About California Foundation for Agriculture in the Classroom

We are a 501(c)(3) nonprofit organization that provides educators with free standards-based resources about California agriculture. Our mission is to increase awareness and understanding of agriculture among California's educators and students. Our vision is an appreciation of agriculture by all.

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