Who Contributed to my Cuisine?
California is a true melting pot of cultures. Each year, more immigrants come to California than any other state. These newcomers share with us new knowledge, traditions, and cuisines. Recreating cultural dishes in a new place requires an abundant and available supply of fruits, vegetables, dairy products, meats, grains, and spices. California produces more than 400 different agricultural products, many of which are featured in these cultural cuisines. This edition of What’s Growin’ On? will introduce you to the California grown commodities that take center stage when preparing cuisine from around the world.

So, what makes a dish culturally unique? Many agricultural commodities are eaten around the world, with each culture possessing its own unique way of preparing it. In India, chicken may be covered with yogurt and curry before being cooked over an open flame. While in Italy, chicken is marinated in balsamic vinegar and rosemary before being baked in an oven. Herbs and spices make the taste of each dish distinctly different, while the main ingredient remains the same. Each culture adds its own twist to the staple foods we eat worldwide.

Many pages of this newspaper feature a culturally-influenced recipe that you can try at home or in your classroom. Most of the ingredients for these recipes can be sourced from California farms and ranches. Look for the sun icon, which represents ingredients that are produced right here in sunny California.

No matter where your family is from, we all have an important seat at the table. California agriculture provides key ingredients for preparing the dishes you enjoy at home—from sweet almond cookies to spicy salsa. As you enjoy your next meal, consider the many Cultural Contributions to California Cuisine.

Read All About It!
For the past 17 years, California Foundation for Agriculture in the Classroom has produced What’s Growin’ On? to help students discover the many ways agriculture impacts their daily lives. This year’s edition, Cultural Contributions to California Cuisine, is inspired by the variety of dishes that can be created from the ingredients produced by California’s hard-working farmers, ranchers, and agricultural employees. The articles and activities featured in What’s Growin’ On? are designed to educate students about different places, people, and cultures—to help students grasp the diversity of the world while appreciating the diverse agricultural bounty produced right here in the golden state.

Each annual edition of What’s Growin’ On? is developed by educators and reviewed by leading agriculture industry experts to provide relevant and accurate information. The activities on the following pages are aligned to third through eighth grade Standards for California Public Schools including Common Core and Next Generation Science Standards.
Have you ever wondered why you can buy fresh melon in December, but you can’t seem to grow it in your garden? See if you can arrive at a reasonable answer to this question by using the information and investigations on this page.

**Northern Hemisphere**

<table>
<thead>
<tr>
<th>June/July</th>
<th>Dec/Jan</th>
</tr>
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<tbody>
<tr>
<td>Blueberries</td>
<td>Lettuce</td>
</tr>
<tr>
<td>Melon</td>
<td>Cauliflower</td>
</tr>
<tr>
<td>Grapes</td>
<td>Apples</td>
</tr>
<tr>
<td>Peaches</td>
<td>Broccoli</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>Peas</td>
</tr>
</tbody>
</table>

**Make Your Own Sundial**

A sundial is a device that tells time using the position of the sun. To make your own, find the center of a paper plate and make a small hole. Force a pencil through the hole. Place your sundial outside. Use tape or a small stone to keep it stationary.

The pencil will create a shadow on the plate. Use a marker to trace the shadow and record the time on the edge of the plate. Repeat every hour. What did you notice? What does this tell you about the earth’s movement? Do you see anything else in the classroom that resembles your sundial?

**Southern Hemisphere**

<table>
<thead>
<tr>
<th>June/July</th>
<th>Dec/Jan</th>
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<tbody>
<tr>
<td>Broccoli</td>
<td>Tomatoes</td>
</tr>
<tr>
<td>Lettuce</td>
<td>Peaches</td>
</tr>
<tr>
<td>Beets</td>
<td>Cucumber</td>
</tr>
<tr>
<td>Cabbage</td>
<td>Strawberries</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>Cherries</td>
</tr>
</tbody>
</table>

**The Four Seasons of Farming**

California crop farmers are busy year-round. Here are some typical tasks a farmer completes throughout the year. Add your own drawings to illustrate what happens on the farm during each season.

- **Spring**: Preparing the ground, planting, and hiring employees
- **Summer**: Watering, weeding, and fertilizing
- **Fall**: Harvesting, transporting, and processing
- **Winter**: Planning, making a budget, and buying equipment

**Did You Know?**

June 21 marks the day when the Earth is turned the most toward the sun. This is known as summer solstice. It is the longest, sunniest day of the year.

The tilt of the Earth’s **axis** is the most important reason for seasons. As Earth **orbits** the sun, its tilted axis always points in the same direction. So, throughout the year, different parts of the planet get the sun’s direct rays.

**A Trip around the Sun**

For this investigation, you will need a lightbulb or flashlight to represent the sun, a foam ball to represent the Earth, a pencil to act as the Earth’s axis, and a rubber band to represent the equator.

Insert the pencil in the bottom of your foam ball. Place the rubber band around the middle of the foam ball. Have one person hold the light source stationary. Holding the pencil at a constant angle, have the other partner move earth around the light source. Reflect on these questions:

What do you notice about the way the light hits the Earth? When is it most light? When is it darkest?

**California Spotlight**

California’s mild temperatures and Mediterranean climate make it an ideal location for producing a wide variety of agricultural commodities (more than 400), some of which cannot be produced anywhere else in the nation.

Sources: NASA (nasa.gov)
National Geographic (nationalgeographic.com)
Harvest of the Month (harvestofthemonth.cdph.ca.gov)
Agriculture Goes Green
In the 1950s, food was scarce and malnutrition was a concern worldwide. The innovations of farmers and ranchers led to the development of the “Green Revolution.” The use of irrigation, hybrid seeds, crop protection, and fertilizers increased the production of crops such as wheat, rice, corn, and beans. Its goal was to increase the supply of affordable food, first in Mexico and then throughout the developing world.

The Green Revolution has had many accomplishments but not without cost. It is responsible for nearly doubling the production of rice, wheat, and cereals in developing nations and making food more accessible and affordable to the world’s poorest. However, the Green Revolution increased dependence on fossil fuels used to power heavy equipment and reliance on fertilizers and crop protection. Advancements in science continue to help farmers around the world reduce environmental impacts while maintaining the benefits of the Green Revolution.

The Father of the Green Revolution
Plant breeder Norman Borlaug is known as the “Father of the Green Revolution.” He was a key leader who won a Nobel Peace Prize in 1970 for his work. Borlaug was credited with saving more than a billion people throughout the world from starvation through agricultural advancements.

California Spotlight
Corn, also known as maize, is a cereal grain that was domesticated in Mesoamerica as many as 10,000 to 12,000 years ago. Today, California produces 19% of the nation’s sweet corn, ranking number two in the U.S., behind Florida. Lima beans originated in Peru, thus sharing a name with the capitol and largest city. They were brought to California in a merchant ship around 1900 and have been grown in the state since. Today, California producers grow a wide variety of beans including baby limas, garbanzos, blackeyes, large limas, and kidney beans.

Corn Calculations
1. If an ear of corn has an average of 800 kernels in 16 rows. How many kernels are in each row?
2. Considering these averages, how many kernels on 10 ears of corn?
3. A pound of corn contains approximately 1,300 kernels. How many kernels in an ounce?
4. 100 bushels of corn produces approximately 7,280,000 kernels. How many kernels in one bushel?

Convince Your Classmates
Complete the chart below using information about the Green Revolution. List accomplishments and concerns. Use information from your chart to write a persuasive paragraph about the Green Revolution.

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
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</thead>
<tbody>
<tr>
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</table>

Recipe
Peruvian Bean Salad
This bean salad from the country of Peru features California grown tomatoes, avocados, peppers, olive oil, and garlic.

Ingredients
- 2 garlic cloves, minced
- 1 Tbsp. honey dijon mustard
- 1 Tbsp. chopped pickled jalapeno pepper
- ¼ cup red wine vinegar
- ¼ cup olive oil
- 19 oz. chickpeas
- 19 oz. black beans
- 19 oz. pinto beans
- 1 yellow pepper, chopped
- Salt and pepper, to taste
- 1 avocado, chopped
- 1 pint grape tomatoes, halved
- ½ cup parsley, chopped

Procedure
1. In a small bowl, mix garlic, mustard, jalapenos, salt, pepper, and vinegar. Whisk in oil.
2. Drain and rinse beans, then place in a large bowl. Add pepper, avocado, tomatoes, and parsley.
3. Toss salad with dressing. Serve immediately.

Source: geniuskitchen.com

Garden in a Glove
Use a variety of bean seeds to grow a garden in a glove! Under ideal conditions, beans will germinate in eight to 10 days. After seeds germinate, cut fingers off glove, remove cotton balls, and plant seedlings in a container or in the ground. Visit learnaboutag.org/resources/bites for detailed instructions.

Did You Know?
It is common for farmers to use every part of the corn plant. Cobs and stalks are fed to animals, burned as fuel, or woven into roofing material. Many foods are steamed in cornhusks. Corn silk can be brewed into a tea.

Folklore for Foodies
Corn, squash, and beans were referred to as the “three sisters” in Aztec agriculture. The three crops benefit from each other. The maize provides a structure for the beans to climb, the beans add nitrogen to the soil, and the squash leaves prevent weeds by blocking sunlight.

Song Title
Pour Some Sauce on It

Verse
I’ll pour some sauce on it
And let it ripen
It’s nutrition
You might recognize
When you eat corn
Like that.

Refrain
I’ll pour some sauce on it
And let it ripen
It’s nutrition
You might recognize
When you eat corn
Like that.

Verse
I’ll pour some sauce on it
And let it ripen
It’s nutrition
You might recognize
When you eat corn
Like that.

Refrain
I’ll pour some sauce on it
And let it ripen
It’s nutrition
You might recognize
When you eat corn
Like that.
Oceania

Oceania is an area of the South West Pacific Ocean that includes many islands and their adjacent seas. The largest land mass in Oceania is Australia. You may be surprised that an area called Oceania is among the top livestock producers and meat consumers in the world.

**California Spotlight**
Nationally, California ranks second in sheep and lamb numbers, with an industry valued at $93 million. California ranks fourth in total cattle numbers, with beef and beef products in the top 20 of all California exports. California ranks among the top nine chicken producing states, with more than 250 million birds in production. California ranks 27th in pork production with an inventory of 95,000 pigs.

**Folklore for Foodies**
On the islands of Pohnpei and Kosrae, in Micronesia, pigs are traditionally raised by every family for ceremonial and cultural purposes, such as weddings, funerals, and feasts of celebration.

**Recipe**
**Chicken Micronesia**
This recipe comes from a region of Oceania that includes approximately 2,100 small islands, the largest of which is Guam. Try making it with locally-sourced chicken, ginger, and onion.

**Ingredients**
- 1 ½ lbs. chicken thighs
- 1 (20 oz) can pineapple tidbits
- ¼ cup soy sauce
- ½ tsp. ginger
- ¼ cup onion, minced
- ¼ cup coconut, grated

**Procedure**
1. Drain liquid from canned pineapple into a small mixing bowl. Whisk in soy sauce and ginger.
2. Pour the mixture into a baking dish and place chicken inside, turning once to coat both sides. Marinade for at least an hour, or as long as overnight.
3. Sprinkle pineapple, onion, and coconut on top of chicken.
4. Place in oven and bake at 350° F for about an hour.
5. Serve over rice.

**Grazing Activity**
Herbivores are animals that only eat plants. Cattle and sheep graze, eating plants available in their environment. In California and Oceania, many farmers use rotational grazing, a method of feeding where animals are regularly rotated to fresh pasture at the right time to prevent overgrazing and encourage grass growth.

Incorporating scientific principles, conduct research and write a paragraph defending rotational grazing as a method to reduce environmental impact.

**Protein on Your Plate**
Australia is the top lamb consuming country in the world, while the U.S. ranks second for poultry consumption.

Use the statistics below to create two bar graphs depicting per capita consumption of meat for each country. First, convert measurements from kilograms to pounds. (Hint: 2.2 lbs. = 1 kg.)

**Did You Know?**
In New Zealand, sheep outnumber people 6 to 1. If the human population of New Zealand is 4,693,000, how many sheep are there?

**Sources:**
- California Department of Food and Agriculture (cdfa.ca.gov/statistics)
- Organisation for Economic Co-operation and Development (data.oecd.org)
- California Cattlemen’s Association (calcattlemen.org)
Recipe
Cheese Herb Zucchini
This kid-friendly recipe can be modified to feature locally-sourced cheese, such as Monterey Jack, or an European cheese, such as parmesan.

Ingredients
- 6 zucchini
- 1 tsp. garlic salt
- 1 tsp. Italian herbs
- 2 Tbsp. butter, melted
- 1 cup cheese, grated

Procedure
1. Cut ends of zucchini, cut lengthwise. Parboil in boiling salted water, until tender but crisp. Drain. Turn into lightly buttered baking dish.
2. Drizzle melted butter over zucchini. Sprinkle with garlic salt and herbs, top with grated cheese and paprika.
3. Bake at 400°F for 10 minutes, until cheese is melted and lightly brown.

Say Cheese!
Investigate the cheese making process by making your own mozzarella. It only takes a few ingredients, and will be ready to enjoy in less than an hour! Visit learnaboutag.org/resources/bites for detailed instructions.

California Spotlight
In California, 46 percent of cow’s milk is used in cheese production. The state’s dairy processors produce more than 250 different varieties and styles of cheese—including Monterey Jack which was originally produced in California missions more than 200 years ago. Additionally, California leads the nation in producing Hispanic-style cheeses.

Folklore for Foodies
The folklore behind blue cheese goes back to the 7th century, to a cave outside the village of Roquefort in France. Legend has it that a distracted shepherd forgot his lunch of bread and cheese in the cave. When he returned a few months later, the cheese had become

Cheese Around the Clock
In Western Europe, cheese is eaten around the clock. Study the 24-hour clock to discover how cheese is enjoyed throughout the day.

Cheese can be digested by many people with lactose intolerance. Aged cheeses, such as swiss, parmesan, and cheddar, contain only trace amounts of lactose.

The Degrees of Cheese
Find the angle of each mealtime sector. Use a protractor, or use mathematical equations. To find the percent of each sector, divide the number of hours in each sector by the total number of hours in the circle (24). To find each angle, multiply the percent (in decimal form) by 360.

<table>
<thead>
<tr>
<th>Mealtime</th>
<th>Meal Idea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td></td>
</tr>
<tr>
<td>Morning Snack</td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>Afternoon Snack</td>
<td></td>
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<tr>
<td>Dinner</td>
<td></td>
</tr>
<tr>
<td>Dessert</td>
<td></td>
</tr>
</tbody>
</table>

Sources: California Milk Advisory Board (realcaliforniamilk.com)
Cheeses of Europe (cheesesofeurope.com)
Dairy Council of California (healthyeating.org)
Mesopotamia (mehs-o-po-TAY-mih-uh), the area between the Tigris and Euphrates Rivers (in modern day Iraq), is often referred to as the “fertile crescent” because it was one of the first places where societies transitioned from hunting and gathering to agriculture and settlement. Today, the Middle East leads the world in date production, and olives are still culturally significant after thousands of years.

Did You Know?
The world’s largest producer of dates is Egypt, followed by Iran, Saudi Arabia, Algeria, and Iraq.

Recipe
California Date Shake
According to legend, the date shake was invented in the 1930s by a California date farmer. This frosty treat can be blended and enjoyed with California dates year-round.

Ingredients
4 dates, pitted and chopped  ¼ cup cold milk  1¼ cups vanilla ice cream

Procedure
1. In a blender, blend dates and milk until smooth and very frothy.
2. Add ice cream and pulse a few times, until just blended.

Did You Know?
The world’s largest producer of dates is Egypt, followed by Iran, Saudi Arabia, Algeria, and Iraq.

Nutrition Facts
Serving Size: (40g)
2 Jumbo Dates / 6 Medium Dates

<table>
<thead>
<tr>
<th>Amount per serving</th>
<th>% Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>110</td>
</tr>
<tr>
<td>Total Fat</td>
<td>0g</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>0%</td>
</tr>
<tr>
<td>Trans Fat</td>
<td>0g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>0g</td>
</tr>
<tr>
<td>Sodium</td>
<td>0g</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>30g</td>
</tr>
<tr>
<td>Dietary Fiber</td>
<td>3g</td>
</tr>
<tr>
<td>Total Sugars</td>
<td>25g</td>
</tr>
<tr>
<td>Includes 0g Added Sugars</td>
<td>0%</td>
</tr>
<tr>
<td>Protein</td>
<td>1g</td>
</tr>
</tbody>
</table>

Vitamin D 0mcg 0%
Calcium 19mg 2%
Iron 0.4mg 2%
Potassium 262g 6%
Thiamin 0.02mg 2%
Riboflavin 0.04g 4%
Niacin 1mg 4%
Vitamin B6 0.1mg 4%
Biotin 3mcg 8%
Pantothenic Acid 0.3mg 6%
Magnesium 20mg 4%
Zinc 0.12mg 2%
Copper 0.1mg 10%
Manganese 0.1mg 4%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet.

Blend it Bigger
This recipe is for one 12-oz shake. What if you wanted to make shakes for your whole family? Or your entire class? Determine the number of servings and rewrite the recipe below.

_______ servings  _______ cups cold milk  _______ dates, pitted and chopped  _______ cups vanilla ice cream

Did You Know?
To produce one quart (32-ounces) of Extra Virgin Olive Oil, 11 pounds of olives need to be pressed. How many pounds of olives would need to be pressed to fill a 128-ounce jug?
A Slice of History

Historians will point out that baked flatbreads, sometimes topped with oil and herbs, date back to ancient times. However, the pizza we’re all familiar with—the kind with tomato sauce, cheese, and toppings—originated in Italy. Pizza made its way to the United States via Italian immigrants. The first United States pizzeria, G. Lombardi’s, was opened in 1905 in New York City. Today, pizza is one of the most popular foods in the United States and around the world.

Pizza Puzzler

Which pizzeria offers the best deal in town? Don’t worry if your math skills are little CRUSTY, you just KNEAD some practice! Complete the table below and determine which pizza is the best bargain.

<table>
<thead>
<tr>
<th>Pizzeria</th>
<th>Circumference</th>
<th>Diameter</th>
<th>Radius</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luigi’s Pizza Palace</td>
<td>8”</td>
<td></td>
<td>4”</td>
<td>$5.25</td>
</tr>
<tr>
<td>Ristorante Romano</td>
<td>6”</td>
<td></td>
<td>3”</td>
<td>$8.25</td>
</tr>
<tr>
<td>Pizza Pirates</td>
<td>32”</td>
<td></td>
<td>16”</td>
<td>$7.00</td>
</tr>
</tbody>
</table>

A Slice of History

Some cultural cuisines have been adopted so enthusiastically, they can be found in nearly every town in America. Let’s look at some of America’s favorite adopted cultural cuisines: pizza and tacos.

It’s Pizza...California Style!

California farmers, ranchers, and agriculture employees are essential to a delicious pizza. These California grown ingredients take your pizza from simple to sensational.

Chili Flakes
Chili flakes are made from red peppers including paprika, cayenne, jalapeno, and bell peppers. California leads the nation in both chili and bell pepper production.

Olives
California produces 95 percent of the nation’s supply of olives. The most common varieties, Manzanillo and Sevillano, produce different sizes—from small to colossal.

Asparagus
California produces approximately 70% of the nation’s supply of fresh asparagus.

Pepperoni
Pepperoni is a variety of seasoned salami made from beef and pork. Beef cattle is California’s 4th largest agricultural commodity.

Mozzarella
California leads the nation in Mozzarella production with more than 1.4 billion pounds in 2017.

Tomato Sauce
California produces more than 90% of the nation’s processed tomatoes and nearly half the world’s total processed tomatoes.

Crust
California produces 520,000 tons of wheat annually. Most is processed into pasta or animal feed. California farmers grow garbanzo beans, rice, and quinoa—popular ingredients for creating unique crusts.

Did You Know?

In 2012, the world’s largest circular pizza, named Ottavia to pay tribute to Rome’s first emperor Octavian Augustus, was created in Italy. It had a diameter of 131 feet. What was the radius and circumference of this enormous pie?
Let’s Taco ‘Bout It

Tacos are a traditional Mexican dish that feature a tortilla folded or rolled around a meat filling. In the early 1900s, Mexican migrants working the mines and railroads brought the taco to the United States. Since then, tacos have been adapted to include ingredients readily available in the U.S.—hamburger instead of tripe, cheddar cheese, iceberg lettuce, and tomato. Today, Mexican food has become the second most popular cuisine in America. Tacos featuring California grown ingredients can be ordered at some 60,000 Mexican restaurants around the country.

Did You Know?

Texas is home to the greatest number of Mexican restaurants, followed by New Mexico, California, and Arizona. Take a look at a U.S. map to hypothesize why these states love Mexican food so much.

Taco Bar

One thing people love about tacos is their ability to customize their taco with a variety of fillings. A healthy diet will include protein, fruits, vegetables, grains, and dairy. Dietary guidelines emphasize eating more fruits and vegetables. Choose one ingredient from each food group and choose two ingredients from the fruit and vegetable groups to create a well-balanced taco.

Pick one from each category...

**Protein**
- Black beans
- Chicken
- Hamburger

**Grains**
- Rice
- Whole wheat tortilla
- Corn tortilla

**Dairy**
- Sour cream
- Cheese

Pick two from each category...

**Fruit**
- Bell peppers
- Tomatoes
- Avocado
- Olives

**Vegetables**
- Zucchini
- Corn
- Lettuce
- Onion

Draw a picture of your taco in the space provided. On a separate piece of paper, write a paragraph describing how California farmers, ranchers, and agriculture employees contribute to creating delicious tacos at home.

Did You Know?

Last year, Americans ate 4.5 billion tacos.

Use the menu to solve the word problems.

1. You and a friend ordered the guacamole, taco salad, steak fajitas, and two sodas. You gave the cashier $30. What was your change?

2. Your sister ordered a bean tostada and soda. You ordered a vegetarian burrito and water. You shared a churro for dessert. What was the cost of the order?

3. Your family ordered two chicken enchiladas, a bean tostada, and fish tacos. Your mom tipped the server 18 percent of the bill. What was the total tip?

4. You ordered a cheese quesadilla, tortilla soup, and soda. You gave the cashier a $20 bill. What was your change?

Rice Around the World
How did rice become a staple food over time? Plot each event from the timeline on the world map. Use additional resources to determine exact geographic locations. Standards: CA History-Social Science: HSS Analysis Skill K–5, HSS Analysis Skill 6–8

Folklore for Foodies
In many countries around the world, it is customary to throw rice at a newly married couple for luck and good health. In France, the bride will break an egg on the threshold of their new home before entering to promote well-being and plentiful children.

Look for the Label
The Nutrition Facts label found on a carton of eggs can tell you all about their nutritional content. The Percent Daily Value indicates the percentage of a required nutrient met by eating one egg.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>How many grams of protein are in one egg?</td>
<td></td>
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<tr>
<td>How many calories are in an egg?</td>
<td></td>
</tr>
<tr>
<td>If you ate a two-egg omelet for breakfast, what percent of your daily protein needs would be met?</td>
<td></td>
</tr>
<tr>
<td>How much sugar is in an egg? (Hint: Sugar is a carbohydrate.)</td>
<td></td>
</tr>
<tr>
<td>How much vitamin A is in one egg?</td>
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</tr>
</tbody>
</table>

Standards: CA Health Education: Grade 5: 3.2.N; Grades 7-8: 1.6.N

Recipe
Fried Rice
Fried rice is a popular component of East, Southeast, and certain South Asian cuisines. Make this dish at home using California grown eggs and rice.

**Ingredients**
- 3 cups cold cooked rice
- 2 carrots, diced
- 3 eggs, beaten
- 1/4 cup vegetable oil
- 2 stalks celery, diced
- 1 medium onion, diced
- 1 cup frozen peas
- Soy sauce

**Procedure**
2. Add peas and cook until thawed.
3. Push veggies aside and scramble the eggs in the middle of the skillet.
4. Mix vegetables and eggs together.
5. Stir in rice, a spoonful at a time, until all ingredients are well-blended.

Sources: American Egg Board (incredibleegg.org)
California Rice Commission (calrice.org)

© 2019 California Foundation for Agriculture in the Classroom
California is the second greatest black-eyed pea producer in the nation, behind Texas. Although prolonged drought conditions in California have negatively impacted production, recent trends show an increase in planting and yield.

Regional Cuisine Map Match
Match each cuisine to the color-coded culinary regions of North America. Label the region with the corresponding cuisine number. If you get stuck, find additional information using print or online resources. Stds: CA History-Social Science: Grade 4: 4.1, HSS Analysis Skill 6–8

Cuisine
1. This region may be known for smoked salmon, Crab Louie salad, and geoduck clams.
2. This region is known for chiles, Asado-style grilling, and prickly pear cactus.
3. This region is known for pineapples, rice, and cattle.
4. This region is known for collard greens, gumbo, and pressure frying.
5. This region is known for cheese, apples, and grains.
6. This region is known for pastrami, cranberries, and lobster.
7. This region is known for molasses, pickled products, and red rice.
8. This region is known for poutine, tourtière, and lamb.

Now Try This!
- Determine the origin of each region’s first immigrants.
- Identify the states in each region and label the map accordingly.

Barbecue Review
Use print and online resources to find a barbecue sauce recipe unique to a specific region in the U.S. Write a paragraph describing the flavors, styles, and cooking methods of the region. Stds: CC ELA: W.3-8.2, W.3-8.7

Recipe
Sweet and Tangy Tomato Barbeque Sauce
Source: southernliving.com
Across the U.S., different regions feature barbecue variations, including different flavors, styles, and cooking methods. This simple sauce will please your taste buds no matter where you live.

Ingredients
- 1 cup ketchup
- ⅓ cup cider vinegar
- ¼ cup light brown sugar, firmly packed
- 1 Tbsp. onion powder
- 2 Tbsp. tomato paste
- 1½ cup dark molasses
- 1 tsp. freshly ground pepper
- 1 cup water

Procedure
1. In a large saucepan, mix all ingredients together. Bring to a boil over medium heat, stirring often.
2. Reduce heat to low. Cover pan, stirring occasionally, for approx. 25 minutes or until thickened. Cool for 10 minutes.
3. Cover and chill until ready to use. May be stored in the refrigerator for up to a week.

Uniquely North American
Std: CC Math: 5.NBT.B.7
Spam was introduced by an American company in 1937. Spam satisfied the need for nonperishable meat during World War II. During the war and the occupations which followed, Spam was introduced into Guam, Hawaii, Okinawa, the Philippines, and other islands in the Pacific.

Hawaiians consume more Spam than anyone else in the U.S.—the average Hawaiian consumes approximately six cans per year. If the population of Hawaii is 1.4 million, how many cans of Spam does the state consume on an annual basis?

Folklore for Foodies
In the Southern United States, eating black-eyed peas on New Year's Day is believed to bring about prosperity in the new year. Typically, the peas are cooked with pork and served with collard greens and cornbread. The peas, which swell when cooked, symbolize prosperity, the greens symbolize money, and the pork symbolizes forward motion.

Q: Why don’t lobsters share?
A: Because they’re shellfish!

Did You Know?
Although we consider barbecue uniquely American, it is a Caribbean cooking style brought north by Spanish conquistadors, moved westward by settlers, and seasoned with the flavors of many European cultures.

Sources:
- International Food Trader (goift.com)
- California Dry Bean Advisory Board (calbeans.org)
- Smithsonian Magazine (smithsonianmag.com)
- Hormel Foods (hormelfoods.com)
Africa

Africa is the second largest and second most populous continent in the world. Much of Africa is an agrarian society—its economy is based on producing crops. Unlike the U.S., where less than two percent of the population are farmers, approximately 70 percent of Africans are directly engaged in farming. There are many crops grown in Africa—sweet potatoes and chile peppers are two popular foods produced in both Africa and California.

**Passports for Produce**

Although popular in African and Californian cuisine, did you know chile peppers and sweet potatoes originated in Central and South America? Although Columbus and his fellow explorers to Central America discovered the aji pepper (renamed “pimiento” by Columbus himself), the Portuguese can be credited with the rapid adoption of chile peppers elsewhere in the world. The chile pepper first arrived in Africa from Central America via Portuguese trade routes during the 15th century. Researchers have found evidence that sweet potatoes arrived in Africa long before Columbus set sail. Archaeologists believe that ancient samples of sweet potatoes found in Polynesia (dating back to 1000 A.D.) came from the western coast of South America. That would give Polynesian explorers a key role in transporting sweet potatoes from South America to the rest of the world.

**Folklore for Foodies**

During some African weddings, newlyweds taste foods that are sour, bitter, hot, and sweet to represent the different times in a marriage. Lemon, vinegar, pepper, and honey are most commonly used to represent these flavors.

**Map It!**

Use an online mapping tool to plot the routes sweet potatoes and chile peppers took as they traveled from the Americas to Africa.

**Sweet and Spicy**

Sweet potatoes make a healthy and convenient snack no matter where you live! Californians enjoy sweet potato fries dipped in a variety of sauces. In Northeast Africa, sweet potatoes are sliced and sun-dried. The dried sweet potatoes are called amukeke, and are enjoyed as-is or cooked and accompanied with peanut sauce. Chile peppers add a kick to cuisine all over the world. In California, chile peppers add spice to salsas and other Mexican dishes. Peppers are also added to American fare, such as hamburgers and hot dogs. In West Africa, hot pepper soup is a traditional cure for fighting the common cold.

**Did You Know?**

Typically, the root of the sweet potato plant is eaten, but in some African cultures the young leaves and shoots are eaten as greens.

**The Sizzle Scale**

Can you name the world’s hottest pepper? Check out the Scoville scale to find out! Capsaicin is the spicy chemical compound found in peppers, and the Scoville scale indicates the amount of capsaicin present. Write each pepper variety in the correct place on the thermometer and answer the related questions.

**Pepper Variety**

- Zimbabwe Bird Chile: 350,000 Scoville Heat Units
- Piri Piri: 175,000
- Hot Banana*: 15,000
- Peruvian Purple: 20,000
- Señorita Jalapeño*: 5,000
- Aji Chombo: 500,000
- Anaheim*: 2,500
- African Pequin: 57,000
- Habanero*: 300,000

* Peppers grown commercially by California farmers.

**Procedure**

1. How many more Scoville units does a Zimbabwe Bird Chile pepper have than a Peruvian Purple Pepper? __________ Scoville Heat Units.
2. Which pepper packs more heat, a Zimbabwe Bird Chile or a Habanero? __________
3. How many more times hotter is an Aji Chombo than a Señorita Jalapeño? __________
4. Would you try an Aji Chombo pepper? □ Yes □ Maybe □ No Way!

**Recipe**

**Amukeke**

California’s sunshine and warm, dry climate provide the perfect conditions for a year-round sweet potato supply. In this recipe, the sun helps bake a unique West African snack.

**Ingredients**

- 4 sweet potatoes
- 2 tsp. salt
- 2 tsp. dried herbs
- ½ lemon, juiced
- 1 Tbsp. olive oil

**Procedure**

1. In a large bowl, whisk together lemon juice, olive oil, and herbs.
2. Wash and pat dry the sweet potatoes. Using a knife or mandolin, cut potatoes into thin slices.
3. Add potato slices to the lemon juice mixture and toss gently to coat.
4. Line a shallow baking sheet with parchment paper. Spread potato slices in a single layer.
5. Place the tray in the sun. Cover with cheesecloth to protect from insects. After 3-4 hours, turn the chips and sprinkle with more salt. Once completely dry, enjoy.

**Sources:**
- Time Magazine: Movement of the Chile Pepper (content.time.com)
- UC Division of Agriculture and Natural Resources (ucanr.edu)
- California Sweetpotato Council (casweetpotatoes.com)
- Sources: Time Magazine: Movement of the Chile Pepper (content.time.com)
- UC Division of Agriculture and Natural Resources (ucanr.edu)
- California Sweetpotato Council (casweetpotatoes.com)
California produces the largest supply of almonds in the world. With more than 6,000 growers and 100 almond processors, California produces approximately 80 percent of the world’s almonds. Walnuts are produced on approximately 350,000 acres, primarily between Redding and Bakersfield. California walnuts account for one-third of the world’s supply.

Eastern Europeans use nuts in every course of the meal, but nuts really shine in their desserts, cookies, and pastries. Almonds, walnuts, and chestnuts are commonly used for traditional recipes. If Eastern Europe is famous for eating nuts, California is unquestionably famous for growing them.

**Phenomenal Flowers**  
Almonds produce ordinary blossoms, while walnuts produce a long, cylindrical petal-less flower cluster called a catkin. Almonds rely on honeybees for cross pollination between different varieties of almond trees planted in alternate rows. Walnut trees rely mainly on wind pollination, with the wind transferring pollen between male and female flowers.

Which picture above shows an almond blossom? Which picture shows a catkin? What external structures support survival, growth, and reproduction?

**Eastern Europeans use nuts in every course of the meal, but nuts really shine in their desserts, cookies, and pastries. Almonds, walnuts, and chestnuts are commonly used for traditional recipes. If Eastern Europe is famous for eating nuts, California is unquestionably famous for growing them.**

**Recipe**  
**Roszke**  
Source: [thespruceeats.com](https://www.thespruceeats.com)

From Croatia to Hungary, these crescent cookies are a big part of Eastern European culinary tradition. California grown walnuts will add a subtle nutty flavor, without overpowering the buttery dough.

**Dough**
- 2 sticks butter, softened 🍪
- 1 (8 oz) package cream cheese, softened 🍪
- ¼ cup sugar
- 1 tsp. vanilla

**Filling**
- 2 cups flour
- ½ tsp. baking powder
- ½ cup milk 🍪
- ½ cup sugar
- 2 cups walnuts, finely ground 🍪
- 1 Tbsp. butter 🍪

**Procedure**
1. Mix butter, cream cheese, sugar, and vanilla until light and fluffy. Combine flour and baking powder, and add to butter mixture. Divide dough into three equal portions, cover with plastic wrap, and refrigerate two hours.
2. Prepare walnut filling. In a medium saucepan, combine all filling ingredients. Cook over low heat until the butter has melted. Cool before using.
3. On a well-floured surface, roll a ball of dough to 1/8-inch thickness. Cut into 3-inch squares.
4. Place a rounded teaspoon of filling in the middle of each square. Roll dough from the corner. Place seam side down on a lined baking sheet and shape into a crescent. Repeat with remaining dough.
5. Bake for 20 minutes at 350°F or until edges are light brown. Cool, then dust with powdered sugar.

**Number One Nut**  
Walnuts are recognized as the oldest known tree food, dating back to 7000 B.C.

**Folklore for Foodies**  
In Bulgaria, nuts are typically offered as part of the Christmas Eve meal. Each family member chooses a nut and breaks it open to predict their luck in the coming year. A white kernel indicates good health and happiness.

**Did You Know?**  
Walnuts and almonds are harvested by a machine that vigorously shakes the tree, causing the nuts to fall to the ground.

**Q:** Why was the almond late for work?  
**A:** Traffic was nuts.

**Did You Know?**  
Walnuts are recognized as the oldest known tree food, dating back to 7000 B.C.

**Nut rolls are a popular dessert throughout Eastern Europe, particularly at weddings and other holidays. Recipes vary widely from region to region. They are known as potica in Slovenian, strucla orzechami in Polish, orechovnik in Slovak, povitica in Croatian, orehnjaca in Hungarian, orehnjaca in Serbian, banitsa in Bulgarian—just to “name” a few.**

Use online resources to identify the countries associated with each of the languages featured above. Then, label each country correctly on a map of Eastern Europe.

**Sources:**  
Michigan State University Extension (canr.msu.edu)  
UC Davis Western Institute for Food Safety and Security (wifss.ucdavis.edu)  
Agriculture Marketing Resource Center (agmrc.org)  
Almond Board of California (almonds.com)  
Walnut Catkin Image: H. Zell (commons.wikimedia.org)
California’s agricultural abundance includes more than 400 different commodities grown statewide, with farmers and ranchers generating approximately $50 billion dollars to the state’s economy.

California is the country’s largest agricultural producer and exporter, with exports valued at approximately $20 billion. People around the world are creating cultural cuisines with California grown commodities.

### From California to the World

Countries all over the world import agricultural commodities from California. However, these ten countries are especially “nuts” about some California products. Round the value of each commodity to the nearest million to complete the table.

<table>
<thead>
<tr>
<th>Country</th>
<th>Top Imported CA Commodity</th>
<th>Value of Imported CA Commodity</th>
<th>Value rounded to the nearest million/billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Union</td>
<td>Almonds</td>
<td>$1.6 billion</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>Wine</td>
<td>$359.9 million</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>Pistachios</td>
<td>$530.2 million</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Rice</td>
<td>$234.1 million</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>Dairy Products</td>
<td>$420 million</td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>Oranges</td>
<td>$182.5 million</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>Almonds</td>
<td>$489.9 million</td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>Walnuts</td>
<td>$189.9 million</td>
<td></td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>Almonds</td>
<td>$240 million</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>Almonds</td>
<td>$157.1 million</td>
<td></td>
</tr>
</tbody>
</table>

### Where Does My Dollar Go?

This dollar bill shows the farm and marketing cost split in a typical $1 food purchase.

**Farm Share**: $0.148

The farm share of the food dollar is the share received by farmers from the sale of commodities.

**Marketing Share**: $0.148

The marketing share is the share received by food supply chain industries involved in all post-farm activities, such as processing, packaging, and transportation.

Create an infographic to illustrate the farm and marketing cost split in a typical $50 food purchase.

### Did You Know?

California farmers use technology such as GPS, mobile scanners, and smart phones to track products from the field to their destination.

### California’s Top Ten Exports

1. ORANGES
2. BEEF
3. DAIRY PRODUCTS
4. WALNUTS
5. PISTACHIOS
6. TABLE GRAPES
7. TOMATOES
8. RICE
9. ORANGES
10. STRAWBERRIES

### Jobs that Depend on Ag

Economic researchers have found that 28 percent of all American jobs are linked to the food and agriculture industry. In addition to farmers and ranchers, many jobs and careers support (and often rely) on the agriculture industry.

- Economist
- Entomologist
- Safety Inspector
- Engineer
- Ecologist
- Manufacturing
- Biochemist
- Hydrologist
- Veterinarian
- Climatologist
- Marketing
- Welder

Did You Know?

California has the world’s fifth largest economy.

Sources:

- USDA Economic Research Service (data.ers.usda.gov)
- USDA Living Science (agriculture.purdue.edu/USDA/careers)
- Food Marketing Institute (feedingtheeconomy.com)
- Ag Explorer (agexplorer.com)
**Axis**
The imaginary straight line that something (such as the Earth) turns around.

**Conquistador**
A leader in the Spanish conquests of America, Mexico, and Peru in the 16th century.

**Consumer**
A person who buys goods and services.

**Domesticated**
To grow (a plant) for human use.

**Drought**
A long period of time during which there is very little or no rain.

**Economy**
The system by which goods and services are produced, sold, and bought in a country or region.

**Enclave**
An area with people who are different in some way from the people in the areas around it.

**Fertilizer**
A substance (such as manure or a special chemical) that is added to soil to help the growth of plants.

**Fossil fuel**
A fuel (such as coal, oil, or natural gas) that is formed in the earth from dead plants or animals.

**Fowl**
A domesticated bird kept for its eggs or meat.

**GPS**
A radio system that uses signals from satellites to identify a current location and give directions to other places.

**Hybrid Seed**
A plant that is produced from two plants of different kinds.

**Immigration**
The action of coming to live permanently in a foreign country.

**Irrigation**
To supply land with water by using artificial means (such as pipes).

**Lactose**
A type of sugar that is naturally present in milk.

**Migrant**
A person who goes from one place to another to find work.

**Nonperishable**
Able to be stored for a long time before being eaten or used.

**Occupation**
A situation in which the military of a foreign government goes into an area or country and takes control of it.

**Orbit**
The curved path of an object or spacecraft around a star, planet, or moon.

**Originate**
To be produced or created.

**Per capita**
By or for each person.

**Poultry**
Domesticated birds raised for food, such as turkey and chicken.

**Processed**
A series of actions that produce something.

**Processor**
A machine, company, etc., that treats, prepares, or handles something.

**Producer**
Someone or something that grows or makes particular goods or products.

**Shoot**
The part of a new plant that is just beginning to grow above the ground.

**Staple food**
An important food that is eaten very often.

**Stationary**
Staying in one place or position.

**Supply chain**
The sequence of steps involved in the production and distribution of a commodity.

**Tripe**
The stomach of an animal (such as a cow or ox) that is eaten as food.

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**Activity**
Choose ten words in the glossary and create an illustrated dictionary. Identify whether each word is a noun, adjective, or verb.

**Resources**

- Almond Board of California
  almonds.com
- California Beef Council
  calbeef.org
- California Date Commission
  datesaregreat.com
- California Department of Food and Agriculture
  cdfa.ca.gov
- California Dry Bean Advisory Board
  calbeans.org
- California Farm Bureau Federation
  www.cfbf.org
- California Grown
  californiagrown.org
- California Milk Advisory Board
  realcaliforniamilk.com
- California Olive Committee
  calolive.org
- California Pork Producers Association
  calpork.com
- California Poultry Federation
  cpif.org
- California Rice Commission
  calrice.org
- California Sheep Commission
  californialamb.com
- California Sweetpotato Council
  casweetpotatoes.com
- California Walnut Board
  walnuts.org
- Dairy Council of California
  healthyeating.org
- National Corn Growers Association
  ncc.org
- National Organization for Animal Health
  noah.org
- Pacific Egg and Poultry Association
  pacificegg.org

To request a free copy of *What’s Growin’ On? Extra! Extra!* Extensions to enhance the use of this newspaper, visit LearnAboutAg.org/wgo or call (800) 700-AITC (2482).
California’s Official State Foods

You might know that the California state animal is the grizzly bear, but did you know California has state foods, too?

Fruit: Avocado
As the largest producer in the United States, California knows a thing or two about avocados. Eaten fresh, added to a salad, or mashed up into a zesty guacamole, avocados provide a substantial amount of vitamins, minerals, and other nutrients with relatively few calories.

Grain: Rice
Even though California is in second place for growing the most rice, California rice is some of the most popular rice in the world. California rice fields provide important habitat for nearly 230 different wildlife species.

Nuts: Almond, Walnut, Pistachio, and Pecan
It’s no wonder California couldn’t pick just one state nut. California produces the nation’s supply of almonds, walnuts, and pistachios, with pecan production steadily increasing. In 2017, Governor Jerry Brown signed the official state nuts into law.

Vegetable: Artichoke
California is home to Castroville, a town in Monterey County proudly nicknamed the “Artichoke Capital of the World.” With 99.99% of the nation’s artichokes grown in California, artichokes are truly California’s vegetable.