

Be a Food Explorer

Objective

Students will read about the origins of some common foods. Students will taste foods they have not tried before and record their reactions. Students will research to find if the foods they normally eat are native to the Americas or non native. Students will develop recipes for unfamiliar foods.

Background

Most of the foods we eat have travelled all around the world. Bread is made from wheat, which originated in the Middle East. The meat in our hamburgers is from beef animals, which came to us from South Asia, the Middle East and Europe. French fries are made from potatoes, which are native to South America, along with tomatoes. Lettuce comes from Europe, oranges from China and apples from eastern Europe.

Besides potatoes and tomatoes, some of the fruits and vegetables we eat today that are native to the Americas are corn, beans, sweet potatoes, peppers, squash, pumpkins, Jerusalem artichokes, sunflower seeds, and pecans. Potatoes, peanuts and tomatoes got their start in South America, made their way to Europe and Africa with the Spanish explorers and then found their way back to North America. Pecans are the only food native to our state that we commonly eat today.

Explorers from the 1500s introduced many new foods to other parts of the world. Valuable spices were among the riches sought by explorers when they sailed from their countries to new worlds, risking their lives and fortunes.

Spices were important because there was no refrigeration in the 1500s, and fresh meat spoiled quickly. Strong spices covered the flavor of slightly rotten food. Some spices, like rosemary and cinnamon, helped preserve food. Spices also covered unpleasant smells in unsanitary times and were used to embalm dead bodies. Black pepper was more valuable than gold.

Many of the foods we know traveled from continent to continent because sailors needed fresh foods to survive. Without means to preserve fresh fruits and vegetables, sailors had to exist on salted meat, dried fish and unleavened bread and biscuits. Without the Vitamin C found in fresh produce, sailors would develop a disease called scurvy that made their gums bleed and joints swell.

Reaching land for fresh food and water was the only way to survive, but explorers rarely knew exactly where they were going. In their search for fresh foods in new lands, the explorers brought back tomatoes, potatoes, bananas, chocolate and tea from the New World and discovered new grains, like Indian corn.

We don't have to go to such extremes today to get a healthy variety of foods in our diets. Fresh, frozen, canned and dried fruits and vegetables are available to us throughout the year. Studies show that people who eat a wide variety of food are healthier, live longer and have reduced risk of developing lifestyle illness. Food choices influence our risk of developing illnesses such as heart disease, cancer and diabetes. Vegetables and fruit contain a large number

Oklahoma Academic Standards

GRADE 3

Speaking and Listening: R.1,2,3; W.1,2. Reading and Writing Process: R.1. Critical Reading and Writing: R.5,7; W.3. Vocabulary: R.1,3,5. Research: R.1,2,3,4; W.1,2,3. Health—2.4; 3.1; 4.2; 6.2. Economics: 3. Geography: 1B

GRADE 4

Speaking and Listening: R.1,2,3; W.1,2. Reading and Writing Process: R.1,4. Reading and Writing: R.5,7; W.3. Vocabulary: R.1,3,5. Research: R.1,2,3; W.1,2,3. Health—2.4; 3.1; 4.2; 6.2

GRADE 5

Speaking and Listening: R.1,2,3; W.1,2. Reading and Writing Process: R.1. Reading and Writing: R.5,7; W.3. Vocabulary: R.1,3,5. Research: R.1,2,3; W.1,2,3,4. Health—1.1,4; 3.10; 4.2; 6.1; 7.1

Materials

Assorted fruits and vegetables

Scary Foods

—When the Spanish brought back tomatoes from the New World, they were popular for a short time. Then someone decided they were poisonous. For years, tomatoes were grown only for decoration.

—When explorers first brought potatoes from Peru, people thought they were poisonous, too. Some thought they caused leprosy.

—The Greeks, French and many other cultures recognized garlic as healthy and loved its flavor when added to many foods. The British hated it because they considered it low class. The worst name they could call someone was “garlic-eater.”

—Even as late as the 20th Century, bananas were considered dangerous for young children. Today they are considered one of the most nutritious baby foods and are recommended for treatment of diarrhea.

—In Europe, Indian corn wasn't considered poisonous, just inedible—good only for cattle.

—Peanuts were grown as flower curiosities in Virginia and north Carolina. It wasn't until the Civil War that hungry Confederate soldiers discovered how good they were roasted over an open fire.

—Chocolate was once considered the devil's drink in many Central American villages. Villagers believed the devil could control you if you drank it. Now we drink hot chocolate as a soothing relaxing beverage.

of naturally-occurring substances known as phytochemicals. Scientists believe phytochemicals help prevent cancer and heart disease.

Procedures

1. Lead a discussion about food preferences by asking students to name their favorite and least favorite fruits and vegetables. Discuss what factors affect food preferences. (family preferences, culture, etc.)
2. Bring a wide assortment of fruits and veggies to class. (Could be different varieties of the same fruit or vegetable). Check for food allergies.
 - Make a list of all the fruits and vegetables you have brought.
 - Hand out copies of the list you have made.
 - Show the fruits and vegetables you have brought to class. Hold them up one by one.
 - Students will check the ones they have tried off the list you have made.
 - Discuss observations.
 - As a homework assignment, ask students to try at least three more fruits or vegetables they have never tried. Provide copies of the Food Tasting Grade Sheet and the survey sheet, included with this lesson. Each student will sample three fruits and three veggies they have never tasted and write their observations, comparing them to other flavors. and answer the questions on the survey sheet provided.
3. Provide students with a copy of the reading page, “Be a Food Explorer.”
 - Preview the reading page.
 - Students will write questions they predict will be answered by the reading.
 - After reading, students will respond to their questions and discuss the information with a partner.
4. As a class, generate a list of words related to food.
 - Students will work in groups and use the list to create a T chart and chunk related words together. Label each area of the T chart.
 - Students will use the T charts to write a story about food. They will use the labels, charts, and word lists to create paragraphs and details.On the chalkboard, make a list of foods native to the Americas (See background).
 - Students will list all the foods they have eaten in a day and cross check with the list of native foods
5. Students will select five unfamiliar fruits and vegetables. (See list included with this lesson.)
 - Students will use online or library resources to research the origins of unfamiliar foods, where they are mostly grown now and other information.
 - On a map of the world, students will show where their selected foods originated and report to the class. Discuss how climates affect what foods are grown.
6. Discuss: Many people are afraid to taste foods they have never tasted before. new foods brought home by explorers were often met with suspicion. Have you ever been “afraid” of a new food? (Be honest.) Why?

7. Using the OAITC Oklahoma Commodity Map, name the counties in Oklahoma that grow fruits or vegetables. Use directions (N,S,E,W) to explain where these counties are located in relation to your county.
8. Students will work in groups to develop recipes for one unfamiliar fruit and one unfamiliar vegetable. Award extra points for recipes that do not add sugar or cheese.
 - Students will taste test the creations and vote for the ones they like best.
9. Use some of the vegetables you brought to school to create art.
 - Cut the base off the celery. Dip in paint and press on white construction paper. This creates a rose.
 - Use a broccoli spear to dab in paint. Lightly dab on paper to create small bunches of tiny flowers.
 - Use a strip of bell pepper to “paint” stems for flowers.
 - Use the leaf from a celery stalk to make a leaf print on the picture.
 - Cut off a wide section of eggplant.
 - Cut out small wedges to leave a flower design. Dip in paint and press on paper. (See photo included at the end of this lesson.)
10. Provide copies of the Veggie Art Page for students to paint or color.



Extra Reading

- Child, Lauren, *I Will Not Ever Never Eat a Tomato*, Candlewick, 2007.
- Lin, Grace, *The Ugly Vegetables*, Charlesbridge, 2009.
- Louri, Peter, *On the Texas Trail of Cabeza de Vaca*, Boyds Mills, 2008.
- Murphy, Frank, *Thomas Jefferson's Feast*, Random House for Young Readers, 2003.
- Reilly, Kathleen, and Samuel Carbaugh, *Food: 25 Amazing Projects: Investigate the History and Science of What We Eat*, Nomad, 2010.
- Robbins, Ken, *Food for Thought: The Stories Behind the Things We Eat*, Flash Point, 2009.
- Solheim, James, and Eric Brace, *It's Disgusting and We Ate It! True Food Facts from Around the World and Throughout History*, Aladdin, 2001.

Vocabulary

- disease**—an abnormal bodily condition of a living plant or animal that interferes with functioning and can usually be recognized by signs and symptoms
- embalm**—to treat a dead body with special preparations to preserve it from decay
- fortune**—a store of material possessions
- health**—the overall condition of the body
- native**—grown, produced, or having its beginning in a particular region
- origin**—basic source or cause
- preserve**—to prepare (as vegetables, fruits, or meats) to be kept for future use
- produce**—fresh fruits and vegetables
- phytochemical**—a chemical compound (as beta-carotene) occurring naturally in plants
- rotten**—having decayed due to the action of fungi or bacteria
- sanitary**—free from filth, infection, or dangers to health
- scurvy**—a disease caused by lack of vitamin C and characterized by loosening of the teeth, softening of the gums, and bleeding under the skin
- spice**—a plant product (as pepper or nutmeg) that has a strong pleasant smell and is used to season or flavor food
- spoil**—to decay or lose freshness, value, or usefulness by being kept too long
- unleavened bread**—flat bread variety

Be a Food Explorer

Most of the foods we eat have travelled all around the world. Bread is made from wheat, which first grew in the Middle East. The meat in your hamburger is from beef animals, which came to us from South Asia, the middle east and europe. French fries are made from potatoes, which are native to South America. The tomatoes in your ketchup came from South America also. Lettuce comes from Europe, oranges from China and apples from Eastern Europe.

Corn, beans, sweet potatoes, peppers, squash, pumpkins, sunflower seeds, and pecans are foods native to the Americas. Potatoes, peanuts and tomatoes started in South America, made their way to Europe and Africa with the Spanish explorers and then found their way back to North America with colonists. Pecans are the only food native to our state that we commonly eat today.

Many new foods were introduced around the world during the 1500s, the great era of exploration. Explorers risked their lives and fortunes seeking valuable spices and found other foods along the way. Spices were important because there was no refrigeration, and fresh meat spoiled quickly. Strong spices covered the flavor of slightly rotten food. Some spices, like rosemary and cinnamon, helped preserve food. Spices also covered unpleasant smells in unsanitary times and were used to embalm dead bodies. Black pepper was more valuable than gold.

Many of the foods we know travelled from continent to continent because sailors needed fresh foods to survive. Without means to preserve fresh fruits and vegetables, sailors had to exist on salted meat, dried fish, unleavened bread and biscuits. Without the Vitamin C found in fresh produce, sailors would develop a disease called scurvy that made their gums bleed and joints swell. Reaching land for fresh food and water was the only way to survive. In their search for fresh foods in new lands, the explorers brought back tomatoes, potatoes, bananas, chocolate and tea from the New World and discovered new grains, like Indian corn.

Fresh fruits and vegetables are just as important for our health today as they were for the 16th Century explorers. Some of the foods you find on the grocery shelves may seem as exotic to you as tomatoes and squash did to early explorers. Unlike them, we only have to explore the produce shelves in the grocery store. How brave are you? How many new foods have you tried this week? Check the list on the following page.

Oklahoma Ag in the Classroom is a program of the Oklahoma Cooperative Extension Service, the Oklahoma Department of Agriculture, Food and Forestry and the Oklahoma State Department of Education.

Name _____

Be a Food Explorer

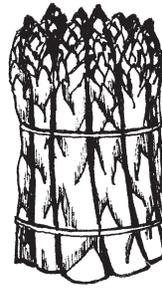
Fruits I have tried

- ___ apples
- ___ apricot
- ___ bananas*
- ___ blackberry
- ___ boysenberry
- ___ cantaloupe
- ___ date*
- ___ fig
- ___ grape
- ___ honeydew melon
- ___ kiwifruit
- ___ mango*
- ___ nectarine
- ___ orange*
- ___ papaya*
- ___ peach
- ___ pear
- ___ pineapple*
- ___ raspberry
- ___ strawberry
- ___ tangerine*
- ___ uglifruit*
- ___ watermelon



*not grown in Oklahoma

Vegetables I have tried



- ___ asparagus
- ___ beet
- ___ broccoli
- ___ cabbage
- ___ carrot
- ___ cauliflower
- ___ chard
- ___ collard greens
- ___ corn
- ___ eggplant
- ___ green beans
- ___ jicama*
- ___ kale
- ___ lettuce
- ___ okra
- ___ onion
- ___ parsnips
- ___ peas
- ___ rutabaga
- ___ spinach
- ___ summer squash (yellow or green)
- ___ sweet potato
- ___ tomato
- ___ turnips
- ___ winter squash

My favorite fruit is _____

My favorite vegetable is _____

New fruit I will try _____

New vegetable I will try _____

Name _____

Vegetable Tasting Grade Sheet

Name of vegetable you are tasting: _____

Grade for each

sight	A	B	C	D	F
smell	A	B	C	D	F
feel	A	B	C	D	F
sound	A	B	C	D	F
taste	A	B	C	D	F

Name of vegetable you are tasting: _____

Grade for each

sight	A	B	C	D	F
smell	A	B	C	D	F
feel	A	B	C	D	F
sound	A	B	C	D	F
taste	A	B	C	D	F

Name of vegetable you are tasting: _____

Grade for each

sight	A	B	C	D	F
smell	A	B	C	D	F
feel	A	B	C	D	F
sound	A	B	C	D	F
taste	A	B	C	D	F

Name _____

Fruit Tasting Grade Sheet

Name of fruit you are tasting: _____

Grade for each

sight	A	B	C	D	F
smell	A	B	C	D	F
feel	A	B	C	D	F
sound	A	B	C	D	F
taste	A	B	C	D	F

Name of fruit you are tasting: _____

Grade for each

sight	A	B	C	D	F
smell	A	B	C	D	F
feel	A	B	C	D	F
sound	A	B	C	D	F
taste	A	B	C	D	F

Name of fruit you are tasting: _____

Grade for each

sight	A	B	C	D	F
smell	A	B	C	D	F
feel	A	B	C	D	F
sound	A	B	C	D	F
taste	A	B	C	D	F

Name _____

Be a Food Explorer

Food Survey

Name of fruit or vegetable I tried _____

Have you ever had this food before? ___yes ___no

In complete sentences, describe this fruit or vegetable. Use all five senses.

Did this fruit or vegetable taste similar to something you have eaten before? ___yes ___no

If yes, what? _____

Was the food cooked? _____ Raw? _____ Eaten with something added? _____

What, if anything, was added? ___sugar (or something sweet) ___cheese ___ketchup ___ranch dressing

Something else (describe). _____

Would you eat this food again? ___yes ___no