

Freshest Fruits

Grade Levels

K - 2

Purpose

Students will learn about where fruits grow and their nutritional value by completing an activity to observe the size, shape, texture, and seeds of various fruits.

Estimated Time

60 minutes

Materials Needed

Interest Approach – Engagement:

- *Fruit Cards*

Activity 1: Fruit Characteristics and Nutritional Value

- Paper towels
- One different type of fresh fruit for each group (Example: apple, peach, kiwifruit, orange, avocado, strawberry, grapes)
- Rulers
- *As I See It* handout (for each student)

Activity 2: Tree, Bushes, and Vines

- Set of *Fruit Cards*
- Set of *What Am I Cards* (for each student group)
- *The Fruits We Eat* by Gail Gibbons

Essential Files (maps, charts, pictures, or documents)

- [As I See It](https://cdn.agclassroom.org/media/uploads/2015/09/15/As_I_See_It.pdf) (https://cdn.agclassroom.org/media/uploads/2015/09/15/As_I_See_It.pdf)
- [Fruit Cards](https://cdn.agclassroom.org/media/uploads/2015/12/10/Fruit_Cards.pdf) (https://cdn.agclassroom.org/media/uploads/2015/12/10/Fruit_Cards.pdf)
- [What Am I Cards](https://cdn.agclassroom.org/media/uploads/2015/12/11/What_am_I.pdf) (https://cdn.agclassroom.org/media/uploads/2015/12/11/What_am_I.pdf)

Vocabulary Words

ascorbic acid: another name for vitamin C; necessary in the body for healthy cells

citric acid: an organic acid which acts as a natural preservative. It is also used to add an acidic, or sour taste to foods and beverages

climate: the weather conditions of a region, such as temperature, air pressure, humidity, precipitation, sunshine, cloudiness, and winds

flower: the reproductive part of a plant. The color, shape, and fragrance of the flowers aid in pollination, which leads to seed production

fruit: Scientifically speaking, the matured ovary of a flower and its contents; some fruits such as squash are called vegetables because they are vegetation that is prepared for the table. They are the sweet, fleshy product of a flowering tree or plant that contains seeds and can be eaten as food

vitamins: a group of essential nutrients used in small quantities to regulate body processes

Did You Know? (Ag Facts)

- Dietary fiber from fruits helps reduce blood cholesterol and lowers the risk of heart disease.¹
- Bananas, grapes, and kiwis are berries because they develop from the female portion of a single flower called the ovary.²
- Avocados are fruits because they contain a large seed, known as a pit.²
- Pomology is the study of fruits.³
- A cup of dried figs contain just as much calcium as a glass of milk.²
- Apples, pears, cherries, and plums come from the same family tree as a rose, I guess you can say they are cousins.²

Background Agricultural Connections

This lesson is part of a series called, *Edible Plant Parts*. These lessons allow students and teachers to examine the six basic plant parts—roots, stems, leaves, flowers, fruits, and seeds—in a unique way. Through hands-on activities, students will learn about the different plant parts, as well as how to include fruits and vegetables into their daily meals as part of a healthy diet. Students will also learn about **agriculture** and the people who produce our food. The remaining lessons can be found at the following links:

- [Why People Need Plants](https://agclassroom.org/matrix/lesson/46&/) (https://agclassroom.org/matrix/lesson/46&/)
- [Dig 'Em Up](https://agclassroom.org/matrix/lesson/320/) (https://agclassroom.org/matrix/lesson/320/)
- [Snappy Stems](https://agclassroom.org/matrix/lesson/321/) (https://agclassroom.org/matrix/lesson/321/)
- [Luscious Leaves](https://agclassroom.org/matrix/lesson/47/) (https://agclassroom.org/matrix/lesson/47/)
- [Fabulous Flowers](https://agclassroom.org/matrix/lesson/93/) (https://agclassroom.org/matrix/lesson/93/)
- [Freshest Fruits](#)
- [Supreme Seeds](https://agclassroom.org/matrix/lesson/323/) (https://agclassroom.org/matrix/lesson/323/)
- [Edible Plant Game](https://agclassroom.org/resource/115/) (https://agclassroom.org/resource/115/)
- [Eat 'Em Up](https://agclassroom.org/matrix/lesson/324/) (https://agclassroom.org/matrix/lesson/324/)



Students will be fascinated to learn how nutritious and delicious eating fruits can be as a snack or with their meal. A **fruit** is the sweet and fleshy product of a flowering tree or plant that contains seeds and can be eaten as food. Due to technology and refrigerated transportation, fruits can be eaten in their freshest form throughout the year. For this lesson student's experience for eating fresh or canned fruits would be required for helping them gain an understanding of people who produce our food, where fruits are grown, and fruit's nutritional value.

The reproductive part of a plant known as a **flower**, not only look pretty but they also produce fruits that we eat. When eating fruits they are low in calories, high in nutrition, high in fiber, and taste delicious. Fruits are also added in many other foods that we enjoy such as ice cream, yogurt, fruit juices, muffins, and vinegar.

Fruits are an excellent source of **vitamins**, known as essential nutrients used to help regulate body processes in our diets. Vitamin C helps the body heal wounds and lowers the risk of infection. It also helps keep the body from bruising and builds the tissue that holds muscles and bones together. Known as **ascorbic acid**, Vitamin C also helps the body absorb the iron found in foods and strengthens the immune system. Some fruits, mainly citrus such as oranges, grapefruits, and lemons also contain **citric acid** which acts as a natural preservative.

Crops that are usually listed as fruits are grown on trees, shrubs, or vines and produce fruit for a number of years. These include apples, apricots, avocados, cherries, dates, berries, figs, grapes, lemons, nectarines, olives, oranges, and pears. The fruit of a plant generally surrounds the seeds of a plant. The fruit protects the seeds and attracts animals and insects. When animals eat the fruit they usually also eat the seed, which will later be deposited with the animal's scat, or waste. The scat provides nutrients for the seed to grow into a plant. This process helps disperse seeds and plants to new areas. For example, birds might eat berries in one location, then fly to another location and deposit their scat with the berry seeds in the new location. A person might pick an apple from a tree, then carry it to a different place to eat, and drop the seeds in this new location.

Today, Californians and others across the United States are fortunate to have access to fresh fruit year round because the **climate**, or weather conditions are ideal. This wasn't always the case. When the gold rush in California began in 1849, hundreds of thousands of people began to move west to California seeking their fortunes in the gold mines. These miners and their families lacked fresh foods, especially those rich in vitamin C. A lack of vitamin C causes a disease called scurvy. Symptoms of scurvy include general weakness, bleeding of gums, and rupture of capillaries under the skin. In the gold rush days, citrus juice was often prescribed as a medical cure for scurvy and was sold for \$1 an ounce.

While many miners did not strike it rich in gold, some discovered that the fertile soil in many parts of California was ideal for farming. Many crops were planted, including fruit orchards in order to meet the demand for fresh fruit from miners and settlers. Modern refrigeration was not yet available to keep fruit fresh after it was picked. Canning was the method used to preserve fruit after harvest so it could be eaten throughout the year and shipped to consumers in other parts of the state. Today, shipping of produce has become much faster and efficient than in the 1800s, and both fresh and canned fruit are readily available in our grocery stores all year long. California is the leading agricultural state in the nation, growing over 400 crops.

Interest Approach - Engagement

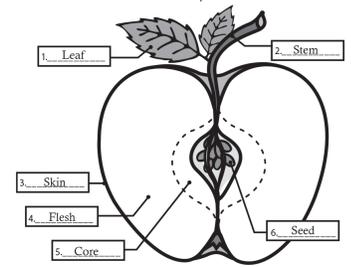
1. Play a short Pictionary game by drawing various fruits. Tell your students that you will be drawing an item on the board and they are to raise their hand when they think they know what you are drawing. For reinforcement, you can also choose to use the *Fruit Cards* provided in the *Essential Files*.

- Once they guess each fruit, leave it on the board and move to a new one until you have four or five fruits drawn on the board.
- Ask your students what each picture has in common.
- Once they identify that they are all fruit, ask the following questions.
 - "Why should we eat fruit?" (*low in calories, high in nutrition, high in fiber, and taste delicious*)
 - "What are a few ways in which fruits can be eaten?" (*fresh (raw), canned, baked, juiced, or frozen*)
 - "Where do fruits grow?" (*trees, bushes, plants, or vines*)
 - "Who grows fruits?" (*farmers and gardeners*)
- Tell the students they will be learning about fruits today.

Procedures

Activity 1: Fruit Characteristics and Nutritional Value

- Prior to class, cut each of your fresh fruits in half.
- Before group work begins, display the entire selection of fruits for the students to observe. Hold each fruit up in front of the class and discuss the similarities and differences in the skin, seeds, and flesh. Explain how each fruit is grown.
- Organize students into groups of two or three. Give each group one half of a piece of fruit. Not all groups will have the same type of fruit. Instruct students to examine the inside of the fruits and complete the *As I See It* handout.
- After students complete the handout, discuss the answers as a class. Have students hold up their fruit for all of the class to see and point out the seed, flesh, and skin. Discuss the purpose of these different parts.
- Have students find the listed percentage of vitamin C for their fruit. Students ages 4-8 need 1 to 1 and 1/2 cups of fruit per day. Students ages 9-13 need 1 and 1/2 cups of fruit per day.
- These are listed on the *As I See It* handout. Call on each group and ask them for the % vitamin C in their fruit. Write the numbers on the board and make a bar graph for students to see.
- Ask students to look at the bar graph and determine which two fruits are the best sources of vitamin C. Discuss how vitamin C plays an important role in our diets.



Activity 2: Trees, Bushes, and Vines

- Use the *Fruit Cards* to review a few facts about each fruit. Discuss the color of the fruit and whether the fruit grows from a tree, bush, or vine.
- Ask the following questions; "Do you like to eat this fruit?" "Where can you purchase this fruit?" "What is your favorite fruit eat?" "What are some ways farmers harvest their fruit?"
- Divide students into groups of 4. Distribute one set of *Who Am I cards* per group, glue or tape, and 2 pieces of white paper.
- Give oral instructions. First, students should solve all of the addition and subtraction problems and record the answer direct behind the "=" sign on each card.
- Next, students will pair the cards with the same sum. For example a card with the equation $2 + 2 = 4$ will match with the card $5 - 1 = 4$.
- Last, instruct the student groups to read the description of the fruit, paying close attention to where the fruit can be found growing; a tree, bush, plant, or vine and the color of the fruit. Each fruit description has a matching fruit card printed in the color of the identified fruit.
- Once the match is found, tape or glue matching boxes together with the first card as the fruit description and the second card as the matching fruit onto the white paper.
- Ask each group of students to stand and read one of their matching cards.
- For reinforcement and more understanding, read the book *The Fruits We Eat* written by Gail Gibbons. Point out the different types of fruits, their characteristics, and where they can be found growing; in an orchard on a tree, plant, vine, or on a bus. Discuss fruits that are grown in your local area.

Concept Elaboration and Evaluation:

At the conclusion of this activity, review and summarize the following key concepts:

- California grows an abundance of fruit crops.
- Fruit is a nutritious snack and provides important dietary requirements like vitamin C and fiber.
- Fruit grows on flowering trees, bushes, plants, and vines.
- The flesh of the fruit attracts animals who eat the fruit. When fruit seeds are planted or deposited in animal scat, they grow into new seedlings and the life cycle of the fruit plant continues.

Variations

- Prior to the lesson, ask students to brainstorm ideas for what they should do with the fruit that is used in this activity. Display some recipes for healthy fruit snacks.
- If fruit is not available, examine pictures of fruit from cooking magazines and identify the parts.

ELL Adaptations

- Demonstrate activity procedures before allowing students to begin. ELL students will benefit from observing the procedures before they get started.

- This lesson incorporates hands-on activities. Kinesthetic learning events provide an excellent learning environment for the English learner.



We welcome your [feedback](https://usu.co1.qualtrics.com/jfe/form/SV_4HhIVpN4L8IC2IT) (https://usu.co1.qualtrics.com/jfe/form/SV_4HhIVpN4L8IC2IT)! Please take a minute to tell us how to make this lesson better or to give us a few gold stars!

Enriching Activities

- Visit a fruit packing plant or farm. Learn how fruit is grown, graded, and packed.
- Have students research a particular fruit and make a poster that illustrates how it is grown and how it gets from the farm to our homes.
- Make a collage using the seeds from the different types of fruit.

Sources

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Ag Facts

1. <http://www.choosemyplate.gov/MyPlate> (http://www.choosemyplate.gov/MyPlate)
2. <http://www.webmd.com/food-recipes/ss/slideshow-fun-facts-fruits-vegetables> (http://www.webmd.com/food-recipes/ss/slideshow-fun-facts-fruits-vegetables)
3. <http://www.factslides.com/s-Fruits> (http://www.factslides.com/s-Fruits)

Suggested Companion Resources

- [A Fruit is a Suitcase for Seeds](https://agclassroom.org/matrix/resource/1010/) (https://agclassroom.org/matrix/resource/1010/)
- [Apples for Everyone](https://agclassroom.org/matrix/resource/348/) (https://agclassroom.org/matrix/resource/348/)
- [Bring Me Some Apples and I'll Make You a Pie](https://agclassroom.org/matrix/resource/414/) (https://agclassroom.org/matrix/resource/414/)
- [Eating the Alphabet](https://agclassroom.org/matrix/resource/138/) (https://agclassroom.org/matrix/resource/138/)
- [Farmers Market](https://agclassroom.org/matrix/resource/374/) (https://agclassroom.org/matrix/resource/374/)
- [Fruit Bowl](https://agclassroom.org/matrix/resource/1108/) (https://agclassroom.org/matrix/resource/1108/)
- [Good Enough to Eat: A Kid's Guide to Food and Nutrition](https://agclassroom.org/matrix/resource/998/) (https://agclassroom.org/matrix/resource/998/)
- [How to Grow an Apple Pie](https://agclassroom.org/matrix/resource/1104/) (https://agclassroom.org/matrix/resource/1104/)
- [No Ordinary Apple: A Story About Eating Mindfully](https://agclassroom.org/matrix/resource/1015/) (https://agclassroom.org/matrix/resource/1015/)
- [Oliver's Fruit Salad](https://agclassroom.org/matrix/resource/1032/) (https://agclassroom.org/matrix/resource/1032/)
- [Our Apple Tree](https://agclassroom.org/matrix/resource/1097/) (https://agclassroom.org/matrix/resource/1097/)
- [Peach Heaven](https://agclassroom.org/matrix/resource/1107/) (https://agclassroom.org/matrix/resource/1107/)
- [Pie in the Sky](https://agclassroom.org/matrix/resource/1094/) (https://agclassroom.org/matrix/resource/1094/)
- [Plants Feed Me](https://agclassroom.org/matrix/resource/337/) (https://agclassroom.org/matrix/resource/337/)
- [The Apple Pie Tree](https://agclassroom.org/matrix/resource/349/) (https://agclassroom.org/matrix/resource/349/)
- [The Fruits We Eat](https://agclassroom.org/matrix/resource/203/) (https://agclassroom.org/matrix/resource/203/)
- [Up, Up, Up! It's Apple-Picking Time](https://agclassroom.org/matrix/resource/279/) (https://agclassroom.org/matrix/resource/279/)
- [Nutrition Posters](https://agclassroom.org/matrix/resource/1007/) (https://agclassroom.org/matrix/resource/1007/)
- [What is a Fruit? What is a Vegetable? Bulletin Boards](https://agclassroom.org/matrix/resource/221/) (https://agclassroom.org/matrix/resource/221/)
- [Apples](https://agclassroom.org/matrix/resource/696/) (https://agclassroom.org/matrix/resource/696/)

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