Teacher Background Information

Interesting Facts about Fruits and Vegetables

Vocabulary

Case Report: A summary of what the detective has learned about a case that she or he files with the detective agency or client.

Clue: A fact that helps solve a mystery.

Investigate: Conduct research by looking for clues.

Public Service Announcement (PSA): A short message that appears on radio or TV to promote a service or idea that is good for people’s health and well-being. A PSA is just like a commercial for a product, except that a TV or radio station plays it for free as a public service.

Sleuth: Another name for a detective.

Share some of the following interesting facts with students to pique their interest in digging deeper into their research about fruits and vegetables.

Leaf Lettuces

- Lettuce belongs to the daisy or sunflower family.
- Lettuce, in terms of production value, is the leading vegetable crop in the United States. More than 90 percent of United States lettuce production is located in California and Arizona. The main varieties include iceberg, romaine, and various leaf varieties.
- The growing popularity of ready-to-eat packaged salad greens, introduced in the late 1980s, has contributed to the dramatic growth in the amount of romaine, leaf lettuce, and spinach available for consumption in the United States.
- Most dark green lettuces are an excellent source of vitamin A, and contain vitamin C and potassium. The vitamin A comes from beta carotene, whose yellow-orange color is hidden by green chlorophyll pigments. Beta carotene is converted to vitamin A in the human body.
- Due to the extremely high water content of lettuce, 94.9 percent, there are no successful methods of long-term home preservation for lettuce. Lettuce does not respond well to freezing, canning, or drying. For optimal nutritional value, lettuce should be eaten while it is fresh and crisp.
- Lettuce is believed to be one of the first vegetables brought to the New World by explorer Christopher Columbus and has been grown in the United States since colonial times.
- In the early 1900s, the ice shipping industry developed in the western States. This made it easier to ship lettuce to many areas of the country, expanding the popularity of lettuce.
Swiss Chard

- Swiss Chard is a member of the beet family. Only the leaves are eaten.

- Chard leaf stalks come in white, yellow, or red leaf stalks.

- Chard is an excellent source of vitamin A and a good source of vitamin C. It also includes calcium, magnesium, potassium, and fiber.

- Chard goes by many names—Swiss chard, leaf beet, seakettle beet, and spinach beet, to name a few. It is a beautiful large-leaf vegetable with wide flat stems resembling celery.

- The word “Swiss” was used to distinguish chard from French charde or chardon by nineteenth century seed catalog publishers and the name stuck. Chard is very popular among Mediterranean cooks but the first varieties have been traced back to Sicily. In the United States, the leaves are preferred while European cooks value the stalks to the point of discarding the leaves or feeding them to animals.

Spinach

- Spinach is an excellent source of vitamin A and a good source of vitamin C. It contains potassium, folate, and calcium. Spinach can be grown as a spring and a fall crop.

- China is the world’s leading producer of spinach, followed by the United States. In the United States, California, Arizona, Texas, and New Jersey grow the most spinach.

- There are three basic types of spinach:
  - Flat or smooth leaf—has unwrinkled, spade-shaped leaves (usually used for canned and frozen spinach or in other processed foods)
  - Savoy—has crinkly, dark green curly leaves (usually sold fresh)
  - Semi-Savoy—has slightly curly leaves (usually sold fresh)

- Spinach is a native of Southwest Asia and has been grown in China since at least the 7th century. Spinach use was recorded in Europe as early as the mid-13th century, with colonists carrying spinach seed to the New World.
Carrots

- Carrots are an excellent source of vitamin A and provide a great deal of the vitamin A in the United States diet. Vitamin A is synthesized in humans by the breakdown of carotenes, the orange pigments in carrot roots.
- More beta-carotene is present in carrots that have a dark orange color.
- Carrots are a member of the parsley family, which also includes celery, anise, and dill.
- The top three fresh carrot-producing States in 2010 were (in order): California, Michigan, and Texas.
- Since the late 1980s, baby carrots or mini-carrots have been a popular ready-to-eat snack food available in many supermarkets. Baby carrots were once longer carrots that have been peeled, trimmed, and packaged.
- The carrot originated around Afghanistan and possibly northern Iran and Pakistan.
- Different colors of carrots were grown at different times over the centuries:
  - 900–1000 AD: Purple and yellow carrots were grown from Afghanistan to the eastern Mediterranean
  - 1300s: Purple and yellow carrots were grown in Western Europe and China
  - 1600s: Yellow carrots were grown in Japan
  - 1700s: In addition to purple and yellow, white carrots were reported in Europe with an orange type first reported in the Netherlands and adjoining regions

Beets

- Beets are also known as beetroot. They are a good source of folate and include potassium, vitamin C, and fiber.
- Beet leaves (tops) can be eaten, too and are an excellent source of vitamins A and C.
- Beets are a vegetable native to Europe and parts of Asia, and cultivated in most cool regions. Its leaves are green or red and edible, though it is generally grown for its thick red or golden root. Some varieties are eaten as a vegetable; others are a source of sugar; and some are used as food for animals.
- Beets are available year-round because they thrive in more than 30 states. June through October is their peak season.
- The types of beet we are familiar with—those that produce large, fleshy, edible roots—were not known 2,000 years ago. The ancients used the root of the wild beet or chard for medicinal purposes.
- The red beet with a turnip-like root was first described as a food plant in Germany in 1558 and was a rarity at that time in northern Europe. The improved beet was called “Roman beet” in the 16th century in northern Europe and France, since it came from Italy.
Colors of beets may range all the way from extremely dark purplish red to bright vermilion and to white. The roots of some varieties, when cut, show distinct light and dark rings, even white alternating with red or purple, like a bulls-eye target.

Eating beets can cause urine to become red or pink in color in some people. This condition is called “beeturia.” It is not harmful.

### Strawberries

- Strawberries are the fifth most preferred fresh fruit in the United States, behind bananas, apples, oranges, and grapes. The United States strawberry industry is mostly located in the southern and coastal areas in California. Florida and Oregon are the second and third largest producing States.
- Strawberries are a member of the rose family.
- Strawberries are usually available fresh year round with a peak from April to July.
- Strawberries are an excellent source of vitamin C. Four strawberries (about ½ cup) will provide over half the recommended daily intake of vitamin C for kids.
- Wild strawberries have been known since the times of the Greeks and Romans.
- The American Indians were already eating strawberries when the colonists arrived. The crushed berries were mixed with cornmeal and baked into strawberry bread. After trying this bread, colonists developed their own version of the recipe and strawberry shortcake was created.
- The strawberries native to the Americas were bigger than European strawberries.

### Raspberries/Blackberries

- Strawberries are the only fruit with their seeds on the outside. Every strawberry, no matter the size, has about 200 seeds.

- Raspberries and blackberries are excellent sources of vitamin C and good sources of fiber.
- Blackberries and raspberries are generally referred to as caneberries, which includes all berries that grow on a cane. They are also referred to as “bramble” plants. All caneberries have perennial crown and root systems, and produce biennial shoots that bear fruit every other year.
- Blackberries are native to several continents, including Asia, Europe, and North and South America, and people have been eating them for more than 2,000 years.
- Initial United States commercial blackberry production started in the Pacific Northwest region in 1860, using plants cultivated from European domesticated species.
- Blackberry peak season is June and July, with harvesting beginning in May and ending in September.
- Raspberries continue to rank as the third most popular berry in the United States for fresh use, after strawberries and blueberries. Raspberries come in red, black, purple, and yellow varieties.
- The United States is the world’s third-largest producer of raspberries. Although production occurs across much of the country, most of it is concentrated in Washington, California, and Oregon.
- Raspberry season begins in June and lasts through October.
Sources

Nutrition Facts

Gardening and Historical Facts


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Other Facts
As a super sleuth, your job is to dig for clues about how fruits and vegetables help you eat smart and play hard. After you’ve done your digging, present the results of your investigation in a case report. A case report is a summary of what a detective has learned about a case that she or he files with the detective agency or client.

- Your report should include:
  - A description of the fruit/vegetable
  - What part of the plant is eaten
  - Why eating the fruit/vegetable helps you to be healthy and play hard
  - Additional interesting facts about the fruit/vegetable
  - Historical facts (for example, how the fruit/vegetable changed over time)

- Geographic facts (for example, where the fruit/vegetable is mostly grown).
- Bibliography (list books and Web sites you used)
- Introduce your report in a way that grabs the reader’s interest.
- End your report in a way that emphasizes the main point of your report.

You should use at least two books or Web sites to find information for your report. List them at the end of your report.

Draw a poster that encourages other students to eat the fruit or vegetable you researched. Include in the poster one or more facts that you learned about it.

Crack the case wide open!
Share how fruits and vegetables help kids eat smart to play hard.
Paragraph 1
Write a sentence that tells what fruit or vegetable is the subject of your report:

Paragraph 2
Write 2-3 sentences that describe your fruit/vegetable
• Color  • Shape  • Texture/feel  • Smell

Paragraph 3
Write 2-3 sentences that identify what part of the plant it is and the job it does for the plant.
**Mission: Dig for Clues, continued**

Name: __________________________________________

My Case Report about __________________________________________

**Paragraph 4**
Write 2-3 sentences about how this fruit or vegetable helps you stay healthy and play hard.

**Paragraph 5**
Write 2-3 sentences that explain something most people don’t know about this fruit or vegetable. For example: Where does it grow? Are there different colors/types? Did it play a role in history?

**Bibliography**
List the books, articles, and Web sites that you used to write your report.
A Public Service Announcement (PSA) is just like a commercial—it presents a persuasive message in a catchy way. A PSA is different from a commercial, however, because it is about a service or idea that is good for you and because PSAs run for free on radio and TV stations.

You will work with other students who are writing about the same fruit or vegetable that you are. Together you will plan a 1-minute PSA (a commercial) to present to the class to persuade other students to try your fruit or vegetable.

Be creative! Think about the ads that you like best and what makes you like them. You could make your PSA a skit, a jingle or short tune, a cartoon, or whatever you think would work best.

Decide together what you want your PSA to be. Divide up the work so that everyone in the group participates in the presentation. For example:

Writer(s): ____________________________________________________________
Performers: __________________________________________________________
Costumes: ____________________________________________________________
Graphics: ____________________________________________________________
Every garden detective in our class is researching and writing a report about a fruit or vegetable in our garden. Ask your child which fruit or vegetable he or she is studying. You may want to add this fruit or vegetable to a family meal. Experiment with new recipes using this fruit or vegetable with your child.

When you find a recipe that your family likes, send it to school so we can include it in the class cookbook.

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**Mystery Solved! Ways To Help Your Child Eat More Fruits and Vegetables.**

1. **Choose fruits and vegetables rich in color.** Brighten your plate with vegetables that are red, orange, and dark-green. They are full of vitamins and minerals. Try spinach, leaf lettuce, carrots, beets, Swiss chard, strawberries, and raspberries/blackberries. They not only taste great but are good for you, too.

2. **Check the freezer aisle.** Frozen fruits and vegetables are quick and easy to use. They can be just as nutritious as fresh when they are packaged without added fats, sugars, or sodium (salt). Try adding frozen peas, green beans, spinach, sugar snap peas, or vegetable blends to some of your favorite dishes or eat them as a side dish.
Family Activity 3

Fruit and Vegetable Riddles

Try solving the following riddles with your child:

What Am I?

1. I’m a vegetable that grows under the ground and has a green top. Eating me helps you have good eyesight. What am I?

_______________________________________________________________________________________

2. I’m a beautiful red fruit that grows in early summer. I taste sweet and you can eat me in a smoothie, in your cereal, or all by myself. What am I?

_______________________________________________________________________________________

3. I’m a leafy dark-green vegetable that likes cool weather. I can be eaten raw or cooked. What am I?

_______________________________________________________________________________________

4. I’m a leafy green vegetable that comes in different colors… including red! You most likely eat me in a salad or on a sandwich next to a slice of tomato. What am I?

_______________________________________________________________________________________

5. I’m round and grow under the ground. My tall green tops taste good in soups and salads, but my red or golden root tastes nice and sweet. What am I?

_______________________________________________________________________________________

6. I am a red or black fruit that can stain your hands when you eat me. I grow on bushes and I taste good on your cereal. What am I?

_______________________________________________________________________________________

7. I’m a leafy vegetable that grows in the garden. I can be green and white or red and green—either way, I taste the same! Most people cook me, but you can eat me raw, too. What am I?

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