

Carrots

DID YOU KNOW?

- Washington State grows 10,000 acres of carrots per year.
- There are two carrot types that are important to Washington growers: Imperator, also known as “slicers” and Chantenay, known as “dicers.” Slicers have long and slender roots, allowing them to be sold as fresh whole carrots. Dicers are short and thick which makes them popular for processing (diced up into other foods like a frozen meal or soup).
- Counties on the west bank of the Puget Sound have small farms that grow carrots to be sold fresh at places like the farmers market. Eastern Washington has big farms and grows carrots to sell to companies that will process them into a variety of foods.
- Washington ranks 2nd to California in the U.S. production of carrots.

For more information, see:

<http://www.ipmcenters.org/cropprofiles/docs/wacarrot.html>

HOW IT'S GROWN

The part of the carrot that you eat is a root that grows underground. Above the soil you will only see a soft bunch of green leaves that look a bit like a fern—that is the carrot top! Carrots grow best in cooler temperatures. In mild climates like Washington, farmers plant seeds early in the spring. Carrots seeds are planted right below the surface, just ¼ - ½ inch under the soil. A windy day can ruin the crop by blowing the seeds away! Carrots prefer light sandy soils with good drainage. To keep



weeds from squeezing out young carrot plants, farmers use compost around carrot beds. Most carrots are ready for harvesting in less than three months, and they can be picked anytime they are big enough to eat. Carrots are usually harvested when the roots are ¾ inches in diameter at the top. It is important to cut the leaves off as soon as they are out of the ground, because as long as leaves are attached, they continue to grow and draw moisture and nourishment from the carrot. During the first five months of storage, carrots will actually increase their Vitamin A content. If they are protected from heat or light, carrots can keep that nutrient value for another two or three months.

For more information, see:

<http://www.carrotmuseum.co.uk/cultivation.html>



COOKING IN THE CLASSROOM

Carrot Raisin Salad

4 cups freshly grated carrots

½ cup raisins

1 large apple, cored and chopped

1 tablespoon lemon juice

2 tablespoons mayonnaise

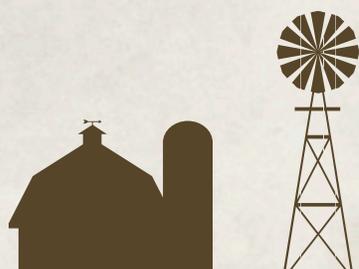
¼ teaspoon salt

Place carrots, raisins, and apple into a medium sized bowl.

Whisk the lemon juice, mayonnaise and salt together in a small bowl.

Pour dressing over salad and toss to combine.

Prep time: 15 minutes; makes 24 - ¼ cup servings.



STUDENT SLEUTH

TRUE OR FALSE?

1. Thousands of years ago, carrots weren't orange like the ones we eat today. The original carrots were deep purple in color, ranging from lavender to eggplant (almost black)! **True**
2. The Vitamin A in carrots helps to protect vision, especially night vision. **True**
3. The edible part of the carrot plant is a stalk that grows above the ground. **False** We eat the thick, deeply colored root of the carrot plant which grows underground.
4. The carrot can trace its ancestry back thousands of years, originally cultivated in California. **False** Carrots were originally grown in Central Asian and Middle Eastern countries.
5. If you purchase carrots with the green leaves attached, the tops should be cut off before storing in the refrigerator. Otherwise they will cause the carrots to wilt as they pull moisture from the roots. **True**
6. Raw carrots are more nutritious than cooked ones. **False** Vitamin A is not destroyed by cooking; in fact, cooking breaks down the carrot fibers, making this nutrient more available.
7. Excessive consumption of carotene-rich foods may lead to a condition called carotoderma in which the palms or other skin develops a yellow or orange cast. **True** Carotoderma is not known to be harmful and will usually disappear after reducing consumption.

For more information, see:

<http://www.whfoods.com/genpage.php?tname=foodspice&dbid=21>

SCHOOL GARDEN

Don't forget about plants and gardening during the wet and grey months of fall. Encourage students to eat healthy fruits and vegetables by experimenting with carrots in the classroom. Roots of many fresh fruits and vegetables will sprout and re-grow. This is an excellent opportunity to teach children about plant parts and their functions.

Select fresh, large-sized carrots (not "baby" carrots) for this activity. Do not use those that are sold with the tops still on them. Remove the top two inches of the carrot and set aside; enjoy eating the rest. Put a one-inch layer of pebbles or pea gravel in a saucer. Place the carrots on top of the gravel, cut-side down, and add more pebbles to hold them in place, leaving about an inch or two of the carrot root exposed above the pebbles. Space the carrots about two inches apart in the saucer. Add water to the top of the pebbles and maintain that water level at all times. The carrots will develop feathery green leaves that grow out the tops.

For more information, see:

<http://www.extension.iastate.edu/growinginthegarden/kids.html>

LITERATURE LINKS

K-2

Carrot Soup by John Segal (Margaret K McElderry Books, 2006)

Tops and Bottoms by Janet Stevens (Harcourt Brace, 1995)

The Carrot Seed by Ruth Krauss (Harper, 1945)

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Stinky and Stringy, Stem and Bulb Vegetables by Meredith Sayles Hughes (Lerner Publications, 1999)

BOTANY

Family: Apiacea | Genus: Daucus | Species: *D. carota*

The carrot is a root vegetable of the Apiaceae family. The edible part of a carrot is known as a "taproot." This plant is cultivated for its enlarged edible root and its foliage is fine and lacy. In fact, the wild carrot is actually a familiar wildflower known as "Queen Anne's lace." Carrots are commonly grouped into two main varieties: eastern and western. Eastern carrots are the original cultivar and were first domesticated in Central Asia more than 1,000 years ago. These carrots are usually purple or yellow in color and have fewer branched roots. The purple color stems from an anthocyanin pigment

lost in later varieties. Western carrots emerged in the Netherlands in the 15th or 16th century. Their orange color made them popular among countries associated with the House of Orange and the Dutch struggle for independence. Carrots contain a group of plant pigments called carotenoids, of which beta carotene is a member. These plant pigments were first identified in carrots (giving them their orange color) and, therefore, their name was derived from the word carrot.

Reprinted from:

http://www.harvestofthefmonth.com/download/Spring/Carrots/Carrots_Edu.pdf

JUST THE FACTS

- The average person will consume 10,866 carrots in a lifetime.
- Carrots are not always orange: they can also be found in purple, white, red or yellow.
- The world's longest carrot recorded was over 19 feet. The heaviest carrot was almost 19 pounds!
- Carrots were the first vegetable to be canned commercially.
- It takes one pound of carrots to make about 1 cup of carrot juice.
- Carrots are not the favorite food of wild rabbits, they prefer grass and hay.

For more information, see:

[http://www.carrotmuseum.co.uk/trivia.html#more trivia](http://www.carrotmuseum.co.uk/trivia.html#more%20trivia)

ADVENTUROUS ACTIVITIES

SCIENCE

Have you ever heard that fruit are classified as such due to their seeds? Well, carrots are a true vegetable because they don't contain a single seed! Where do the carrot's seeds we plant each spring come from?

Carrots are biennial. This means it takes two years to complete their lifecycle and produce seeds. Unpicked carrots will send up a tall stem in the second year of life, which produces flowers and eventually seeds. The seeds are black and very small, like the periods on this page. They are so small that it would take about 3,000 of them to fill a teaspoon!

Read more at: <http://www.carrotmuseum.co.uk/seeds.html>

Carrots grown in Western Washington are watered with natural rainfall. The hot, dry summer weather in Eastern Washington requires irrigation to grow carrots. How long have people used irrigation to grow food? Describe different irrigation methods. How much fresh water is used to irrigate crops in the U.S.?

<http://ga.water.usgs.gov/edu/irmethods.html>

READING AND WRITING

What's the difference between a true baby carrot and a manufactured baby carrot? Use computer lab time to read about baby carrots and write a report to share with your classmates.

<http://www.carrotmuseum.co.uk/babycarrot.html>

GOOD NUTRITION

- Carrots are an excellent source of Vitamin A, which is necessary for healthy eyesight, skin, growth, and immunity.
- Choose carrots with lots of Vitamin A; they are deep orange in color.
- Carrots are a sweet snack that have a higher natural sugar content than all other vegetables except beets.
- 1 cup of raw carrots is a filling treat but only has 50 calories.
- Carrots provide 30% of the Vitamin A in the Americans' diets.

For more information, see:

<http://www.fruitsandveggiesmatter.gov/month/carrot.html>

STUDENT ADVOCATES

Fruits and vegetables come in a rainbow of colors. Each color represents the specific kind of nutrition that individual fruits and vegetables contain. For instance, orange carrots have Vitamin A. The deeper the shade of orange, the more Vitamin A it has. Eating fruits and vegetables of different colors gives your body a wide range of valuable nutrients, like fiber, folate, potassium, and Vitamins A and C. That's why you hear that "eating a rainbow" of fruits and vegetables is good for your body.

To get a healthy variety, think color. Vitamin A-rich carrots have similar nutrients to other yellow/orange fruits and vegetables. This color group helps maintain a healthy heart, vision and immune system. They may also lower the risk of some cancers. Other vegetables from the yellow/orange group include yellow and orange bell peppers, yellow summer squash, butternut squash, corn, yellow tomatoes, apricots, mangoes, grapefruit and yellow apples.

Advocate for eating a rainbow every day during lunch. Start by doing a plate study in your school cafeteria. Survey how many colors each student has on their tray when they leave the lunch line. Next, educate students about the importance of eating a rainbow every. Now do another plate study to see if your advocacy made a difference. Did the amount of colors on your classmates' lunch trays increase?

For more information, visit:

<http://www.fruitsandveggiesmatter.gov/benefits/index.html>



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