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Common Core ELA:

W.3.2A Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.

W.3.7 Conduct short research projects that build knowledge about a topic.

W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

W.5.7 Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

Investigating Carrots

Grades 3-5

Lesson Description: Students will work in small groups and, using a world map, will follow the journey of carrots from their point of origin to North America. They will research the nutritional and health benefits of carrots and combine this information with the history in an illustrated whole-class book about carrots. Students will prepare carrot questions to ask a farmer who participates in their local Framer's Market.

Teacher Preparation:

- 1. Explore a possible partnership with a local farm/farmer. Find one who will be willing to visit your classroom to answer student generated questions about growing carrots.
- 2. Gather resources from library for student research.
- 3. Provide world maps for each child and an assortment of colored pencils.
- 4. Provide art materials and Carrot book format sheets.
- 5. Ask the school food service person if the recipe for Carrot Fries could be made for lunch one day.

Supplies

- World maps, Carrot Facts sheets & Carrots book format
- Art Materials

Learning Objectives:

Students will be able to:

- 1. Explain the route carrots took to get to North America
- 2. Use research materials to find five carrot facts
- 3. Describe three health benefits of eating carrots
- 4. Identify and explain five nutritional components of carrots (vitamins, minerals, fiber)



Procedure:

- 1. In a whole class discussion, students will record facts about the history of carrots on chart paper (these will eventually be cut apart)
 - a. Where and when they grew wild
 - b. Where and when people began farming carrots
 - c. When and how carrots came to North America
 - d. Why they are an important crop today
- 2. Use their notes to place the history of carrots on their world maps
- 3. Explain how carrots that people ate 1,000 years ago are different from the carrots we eat today
- 4. Have students prepare questions about the importance of growing carrots for the local farmer's visit (ex., size of his crop, economic importance to Maine, work involved from planting to harvest).
- 5. Using resources from library and on line, each student/group will find three health benefits of eating carrots and fill in the chart on their *Carrot Information Sheet*
- 6. Using resources from library and on line, each student/group will find five nutritional components of carrots and fill in the chart on their *Carrot Information Sheet*
- 7. Cut apart the carrot facts written on the chart paper so there is one fact per strip. Along with the facts about health benefits and nutrition, have each students pick one fact that they will explain and illustrate for the class carrot book.
- 8. Share the class made Carrot book with a younger class.

Resources

- www.carrotmuseum.com (History of Carrots, good teacher resource)
- www.freshforkids.com.au
- www.kids-cooking-activities.com/carrot-facts.html#ixzz3yZURvUSW
- www.sciencekids.co.nz/sciencefacts/food/carrots.html
- http://www.wafarmtoschool.org/
- http://www.whfoods.com/
- www.webmd.com/food-recipes/5-healthy-facts-about-carrots
- http://nutritiondata.self.com/facts/vegetables
- http://www.nutrition-and-you.com/carrots.html
- www.organicfacts.net





Teacher's Guide to Carrot History & Carrot Facts

Below is a chart that summarizes the history of carrots. Information was provided by the Carrot Museum, www.carrotmuseum.com .

Time Period	Location	Wild or Cultivate d	Color	Use
5,000 years ago	Afghanistan	W	Unknown	Seeds for medicine
4,000 years ago	Egypt – temple drawings of plant	Unknown	Purple	Seeds for medicine (perhaps)
2,000 years ago	Greece and Italy	С	Purple, yellow	Food & medicine (seeds)
1,100 years ago	Afghanistan	С	Purple and yellow	Food & medicine (seeds)
900 years ago	Spain	С	Purple and yellow	Food
800 years ago	China & Italy	С	Purple and red	Food
700 years ago	France, Germany, the Netherlands	С	Red, yellow and white	Food
600 years ago	England	С	Red and white	Food
500 years ago	Northern Europe	С	Orange, yellow and red	Food
400 years ago	Japan and North America	С	Orange and white	Food

Carrot Facts

- 1. Early wild carrots were likely thin, whitish and heavily forked. The roots were woody and were sometimes confused with their relative the parsnip, since they looked and tasted similar.
- 2. Early roots were bitter in flavor.
- 3. Carrots have been bred for a large storage root, color, flavor, and sweetness.
- 4. Wild carrots still grow along road sides and in fields around the world, in temperate climates.
- 5. Some arrots can be as short as 2 inches and others as long as 3 feet.
- 6. China is the world's largest carrot producer.
- 7. Carrots can be eaten as a vegetable, a dessert, and as jam.





Recipe: Carrot Fries

Carrot Fries

12 Carrots Olive oil sea salt

Wash and peel carrots. Cut into sticks. Place on cookie sheet and drizzle with olive oil. Stir to coat. Sprinkle with sea salt and toss once more.

Bake at 375 degrees for 20-25 minutes until light brown.

Recipe from: http://www.kids-cooking-activities.com/carrot-facts.html#ixzz3yZURvUSW





Nutrition

3.

Vitamin/Mineral	Why it's Important			
Joseph Ronafita				
Health Benefits				
Health Benefits				
Health Benefits 1.				

Investigating Carrots: Carrot Book format:							