

Walla Walla School Garden Lessons

Title: 3rd grade – Fall Carrot Harvesting

Standards addressed: Life Science Standards EARL4-LS 1A Life Cycles (describe the lifecycle of a plant from seed to sprout, to adult, to fruits, flowers and seeds).

Unit connections: Science: Plant Life Cycles

Description: Review the history of the carrot, which includes geography and science. Review the nutritional value of carrots. Review plant life cycle and what plants need to grow. Harvest, eat, describe and compare carrots.

Date: early October

Objective:

Students will harvest the mature carrot plants that they planted from seed in the spring. Taste, describe and compare each variety.

Time Required: 1.5 hours

PreGarden Time: 25 minutes

Garden Time: 45 minutes

PostGarden Time: (optional wrap up activity) 20

Materials:

Supplies: school folding table set up outside, cutting boards, knives, vegetable scrubbers, 2 bowls or colanders, towels. Set up the hose to reach the lawn near the garden area. Carrot PowerPoint. Chart paper. Pictures of a variety of different colored carrots (either printed or shown on google images)

Preparation:

Before class, it's helpful to set up the hose, folding table, scrubbers, washing bins, table and cutting boards outside near the garden. Keep the chopping knives put away unless there is a volunteer parent or teacher dedicated to overseeing the chopping table. The building custodian will likely be able to show you where to find a foldable table. In the classroom, set up the Carrot PowerPoint to be shown to the whole group and hang the chart paper in the whole group area (at the rug?).

Class Discussion:

Today, to introduce our garden activity, we are going to play a game called Vegetable Jeopardy. I will give the answer and you should tell me the question that goes with the answer. For example, if I said,

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this vegetable is used for making French fries, you would say “What is the potato”. Okay, let’s get started:

1. *Purple was the original color of this favorite vegetable.* (Take questions from the students until someone comes up with the question “What is the carrot?”). Explain that carrots originated in the area of Afghanistan before 900 AD and were purple and yellow. In fact, wild carrots were probably around for hundreds of years before this time but most likely the greens were used for medicine and the roots were discarded. Carrots also were red and white. Show picture of a variety of colored carrots. What two colors of carrots do you think crossed to make orange carrots? (red and yellow). Orange carrots were first seen around the 1500s. Have any of you seen carrots that are other than orange? Have any of you tasted them? You will get to taste a variety of carrots today that were planted by the second grade students last spring.
2. *Beta-carotene is one of the most important nutrients in the orange variety of this vegetable.* (What is the carrot?) Carrots are an excellent source of beta-carotene, in fact the name comes from carrot. Beta-carotene is important in our bodies for our eyesight, skin health and normal growth. A medium carrot or a handful of baby carrots is one serving of vegetable. Why do you think we would want to eat a variety of different carrots? The different colored carrots have different nutrients in them. Purple carrots have anthocyanins which are antioxidants and help our bodies get rid of free radicals which can cause many problems.
3. *This root vegetable is a taproot.* (What is a carrot?) We eat the root of the carrot plant. Show weed or plant with a straight taproot and explain the carrot is like this taproot and show the carrot. The green leaves of the plant are safe to eat and used to be used for medicine. Has anyone seen a carrot seed? The seeds are very small and develop in the flower that comes onto the plant when the carrot is grown.
4. *Having the second highest natural sugar content of any vegetable makes this vegetable a great snack fresh or baked into a variety of treats.* (What is the carrot?) Beets are the only vegetable with a higher natural sugar content than the carrot. Carrots are often made into cakes, muffins and other sweet baked goods. Washington produces more carrots than all but 3 other states in the US. On average, each American consumes about 10.6 lbs. of carrots a year.

Action:

1. Before going outside to pull carrots, the students view the power point presentation about carrots that was provided to them before planting seeds as second graders. This review reinforces the nutritional value of carrots as well as the history of the carrot.
2. Take students out to the garden to harvest the carrots. It can be challenging to get the students to stop harvesting because it’s so much fun to find treasure. Remind them that all 3rd graders want to harvest, so only pick 1 or 2 carrots. (assess your crop beforehand and determine if every student can pull a carrot)
3. After pulling carrots, students wash them at an outside station. Next, carrots are chopped by either a parent volunteer or students themselves.

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4. Everyone can then enjoy tasting the carrots before going back to the classroom. *Any difference in the taste or texture of the different colored carrots? Is there a color that you like best? Why?*
5. Any leftovers can be delivered to the cafeteria to use in the salad bar.

Wrap Up: (Optional)

Students return to the classroom and gather at the rug. Ask the students how many different varieties of carrots were harvested today. At the top of the chart paper write,

Our Carrot Varieties

Color	Size	Taste	Preferred
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Make a grid with as many lines/boxes going down the left side of the paper as you need for the different varieties harvested today. Either draw and quickly color the varieties yourself or ask for student volunteers (one in each box). Have students turn and talk to discuss each variety, size and taste and then ask for volunteers and record some of their responses on the grid. Ask students to choose one as their favorite flavored carrot. Go through each variety asking students to raise their hand to vote for the one that they liked best. Put a tally mark under the preferred column on your grid to mark the vote.

AND/OR

If time, have students work with you to write a 3 sentence summary of what they discovered today about the carrots they harvested. This summary can be written on the board or on the bottom of the chart.