## Title: $\mathbf{2}^{\text {nd }}$ Grade $\mathbf{- S p r i n g}$ Carrot Seed Planting

Standards addressed: Life Science Standards EARL4-LS1A Life Cycles (describe the lifecycle of a plant from seed to sprout, to adult, to fruits, flowers and seeds).

Math CCSS 2.OA.C. 4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Writing CCSS.ELA-Literacy W.2.3Use details to describe
Unit connections: Science: Soils, Language Arts: From Seed to Plant (Non-Fiction), Watermelon Day (Fiction)

Description: Introduce students to a variety of carrot seeds. Discuss seed-plant process. Plant a variety of carrot seeds in the garden.

Date: late April, mid May,

Objectives: At the culmination of this planting activity (harvesting the carrots that are planted) students will discover that the specific carrot seeds that they planted grew specific carrots, and will be able to draw the life cycle of a carrot from seed to plant.

## 5 reasons why we grow carrots

1. We want to teach our children where their food comes from.
2. We want them to understand the value of time and the patience it takes while gardening. 3. Carrots from the garden have a flavor that you will be unable to replicate in most grocery stores.
3. You can grow a bunch of different varieties to preserve vegetable diversity and encourage healthy eating.
4. We can teach our children that everything we do from preparing the soil to water has an effect on the food we grow.

Time Required: 1.5 hours

Pre Garden Time: 45 minutes

Garden Time: 45 minutes $=3 \times 15$ minute group rotations in the garden

## Materials:

Supplies: variety of carrot seeds including various colors, trowels, watering can to water seeds (or rain-makers-yogurt containers with holes in the bottom), labeled sticks for the garden rows. CD with carrot power point and way to show to whole class. Printed copies of the math/writing worksheet. Optional, a few varieties of carrots for the class to see, hold, and taste. At least one volunteer is ideal.

## Preparation:

Get the carrot power point presentation ready. Make copies of the activity sheet 1 per student or one per pair. Label carrot row markers for the garden (popsicle sticks?). Seed packets ready and water cans (or rain-makers: yogurt containers with holes in the bottom) out at garden.

## Class Discussion:

1. Introduction ( 15 minutes): Gather class on the rug. Quickly review your last garden lesson by asking them to turn to an elbow partner and share 2 things they remember about the Three Sisters Garden. Let them know that for today's lesson, they get to plant seeds for a very important vegetable in our school garden. Have them guess the vegetable through this riddle: "I am going to let you guess the vegetable through a riddle. Hold your ideas in your mind until I am all finished and then raise your hand if you have a guess."
My lovely orange color helps your body make vitamin A. Vitamin A helps maintain healthy eyesight. My fiber helps food move through your intestines. I am a crunchy root . I have vitamins that help you grow. I am often in the school salad bar. What vegetable am I? Carrots

Do carrots have to be orange? Are all carrots orange? Today we are going to plant a "variety" of carrots. What does Variety mean? A variety of carrots refers to different kinds of carrots. (Optional: Unveil the variety of carrots that you brought in. Allow students to touch, taste and discuss the different carrots (one large carrot should be able to produce 27 small slices. OR show Google Images of a variety of carrots).

## Action:

2. Show /discuss Carrot powerpoint about the history of carrot domestication and the nutritional value of carrots.
3. Share the variety of carrot seeds that students will be planting in the garden today. Put a seed packet under the document camera allowing students to see the planting instructions. Discuss your planting plan for today's garden visit.
4. After presenting to the whole class, take groups of 6-9 to the garden to plant seeds directly into the garden following directions on the packet of seeds. There will be quite a few, so take care to label what areas have been planted. The carrot planting area can rotate to different sections of the garden. Water the seeds and water as necessary unless an irrigation system is in place.
5. One group will go with you to the garden to plant while the other students work on the worksheet with the multiplication problem and descriptive sentences. They can work in partners or individually (discuss this with the teacher before beginning the lesson).

## Wrap Up:

Gather the students and work as a group to write a new riddle about carrots. Ex: I'm a root vegetable. I come in a variety of colors etc.


Draw a garden. Draw 2 rows of carrots with 4 carrots in each row. Add some of your favorite types of vegetables to your garden. Make sure to draw a scarecrow to chase away the birds.

## How many carrots are in your garden?

Think of 3 adjectives (describing words) to talk about carrots.
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## Use them each in a sentence.

 1.2. 
3. 

## Did you eat any fruits or vegetables today? Yes No

If yes, list the fruits and vegetable you ate:

