



Kentucky Harvest of the Month



FEBRUARY: ROOT VEGGIES

Root Vegetables Grown in KY

- Carrots
- Beets
- Radishes
- Parsnips
- Turnips
- Sweet potatoes
- Potatoes*

Root Veggies in the winter

Farmers can plant root vegetables like carrots and radishes under low or high tunnels in the fall to be harvested in the winter months. Potatoes are grown in the summer but can be stored and used over the winter.



*Technically, Potatoes aren't roots...

Potatoes are not roots, but rather modified stems called tubers!



Ways to Eat Root Veggies

- Roast them all together - yum!
- Raw on top of a salad
- Pickle them
- Make root veggie fries
- Slice thinly and create veggie chips

Ideas for Your Classroom

Elementary School

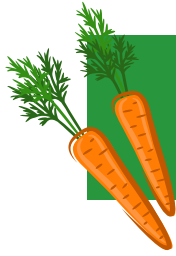
- Read *Tops & Bottoms* by Janet Stevens
- *Carrot Science Experiments* (see attachment)

Middle School

- *Sweet Potato Math Activity* (see attachment)
- Explore different roots - compare root vegetables to the roots of grass, dandelions, and a baby tree! How are they similar? How are they different?

High School

- Analyze and discuss the nutritional content of root vegetables. Discuss starches and the importance of eating a balanced diet (carbs aren't necessarily bad!)
- *Carrot Dissection Lab* (see link)



Carrot Science!

Experiments



2 great experiments to try in your Elementary classroom!

Experiment 1: Absorption

Materials Needed:

- Orange carrot with top
- Glass container
- Water
- Red Food Coloring

Instructions:

1. Fill a glass half full with water.
 2. Place 10 drops of red food coloring into the water.
 3. Cut the end tip off the carrot.
 4. Place the carrot in the water.
 5. Put the glass near a window with sunshine. Ask students to make a hypothesis about what will happen.
 6. After several days, take the carrot out and slice in half (can cut both length-wise and width-wise). Was their hypothesis correct? Discuss how the red shows that the carrot (a root) is absorbing water and it is traveling up into the leaves!
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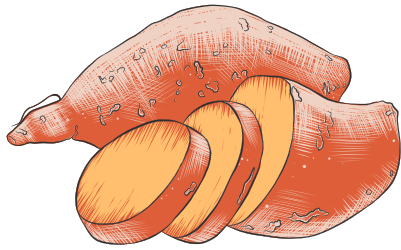
Experiment 2: Soil

Materials Needed:

- 3 different soils - sand, loam, clay
- Carrot seeds
- 3 2-liter bottles

Instructions:

1. Cut the 2-liter bottles in half; try to make them the same size. Put drainage holes in the bottom of each.
2. Fill each bottle with a different type of soil (sand, loam, clay). Allow students to feel the soil with their hands! Have them write observations of the soil and make a hypothesis about which soil the carrots will grow the best in.
3. Plant approximately 10 seeds evenly spaced in each bottle.
4. Place on a windowsill for a couple of months and have students write observations occasionally about what is growing. Water equally.
5. After a couple of months, take the carrots out. Which one is the largest? Longest? Which soil worked the best?



Sweet Potato Math

Sweet potatoes are usually grown from "slips," which are little plants that grow off of other sweet potatoes (see picture).

Those slips, or sprouts, are planted in rows in the ground. After 90-120 days, the sweet potatoes are harvested by digging them out of the ground. Most potatoes are "cured," which allows them to be stored longer. For the curing process, the sweet potatoes can be kept out in the warm summer sun for a week or so. Then, they can be stored for many months!



1. If each slip (sweet potato plant) produces 5 potatoes, how many slips does a farmer need to plant to grow 500 potatoes?

2. If sweet potato slips have to be planted 12 inches apart, how long will 1 row need to be to grow 500 potatoes? Hint, you must use your answer to the previous question to answer this one.

How long would a row be if the farmer planted 2 rows instead of 1?

3. A farmer wants to harvest his sweet potatoes on October 15th for a special event. If it will take 120 days to grow a harvestable crop, on what day must he plant them?

4. A farmer wants to make \$200 from her sweet potato field to buy a new bike. If she sells the sweet potatoes for \$2.50 per pound, how many pounds does she need to harvest from the field?