



Harvest Objectives

Children will investigate beets, including exploring size, shape, weight, etc.

Children will identify that beets grow in the ground.

Children will taste a piece of beet.



Harvest Vocab

Ground

Firm

Vegetable

Materials & Prep

7 Beets (plus enough for each child to taste small $\frac{1}{4}$ pieces; ideally of different varieties: Chioggia--red- and white-striped flesh, Detroit Dark Red--deep red, Golden--carrot-colored flesh, etc.)

Chalkboard/Whiteboard and chalk/whiteboard markers

Images (included at end of learning plan)

Items for station discovery (magnifying glasses, ruler, string of different lengths, balance, scale)

Paper/pencils/crayons (optional)

Knife & Cutting Board

Taste Test Chart

Stickers (or small Post-It Notes)

Smocks (optional)

Literature Connections

From Beet to Sugar by Ali Mitgutsch

Tops & Bottoms by Janet Stevens

The Vegetables We Eat by Gail Gibbons

Warm Up

- In order to engage the children and activate prior knowledge, for 1 – 3 days set a table aside for a Beet Discovery Lab. On the table place scientific tools such as measuring tapes/rulers, string of different lengths (for measuring), a scale, magnifying glasses, tub of water, etc. Add the beets. Before free play begins review the different activities with the students and how they should use the equipment. Then during free play encourage the children to explore the beets and scientific equipment. Here are some possibilities:
 - How heavy is a beet? Put the beet on one side of the scale and see how many items are needed on the other side to balance the scale.
 - Do beets sink or float? Put the beet in a tub of water. Watch what happens. Put other classroom items in the tub. Which do the same as the beet?
 - How wide are beets? Trace around a beet on a piece of paper. How many fingers can fit inside the traced beet? Take a piece of string and measure from one side of the beet to the other. Cut the string and tape it onto the piece of paper. Use a ruler, or unifix cubes, to estimate width.



- Can you make a beet pattern? Using other items around, make a pattern. Beet, paper, beet, paper, beet; or beet, beet, pencil, beet, beet, pencil
- One day, cut some of the beets open. Have the children to press the beets on paper to observe the dye. Note: Consider providing smocks to protect clothing.
- Add paper, pencils and crayons to the station for children to draw their observations. Teachers can write down the child's observations on each child's paper, or collectively on one large paper.

Explain

- After children have explored the beets, gather together in a large group. Share with the children the names of the beets. Explain that botanically they are vegetables (there are no seeds inside). Explain that the main part we eat grows underground, although some people eat steamed beet greens. What other root vegetables can they think of? (Carrots, onion, garlic, etc.) If possible, put out pictures of fruits and vegetables and allow the children to think about which ones are vegetables.
- Explain why we should eat beets (healthy eyes, heals cuts, healthy bones, healthy heart and blood, and healthy immune system) and for each reason come up with an action to help them remember. For example, they can point at their eyes while saying "healthy eyes." Also explain how to pick good beets (they should be firm when you press them gently). Please see the next pages for images to share with the children.

Taste Test

- Rinse the beets. If you did not do so at the station, cut each in half and show the children what they look like on the inside.
- Slice each into pieces. Taste the different varieties and have each child share which was his/her favorite.
- Create another chart that says "I Like" with a smiley face and "I Need to Try Again" with a question mark. Give each child a sticker, and ask them to vote by placing it in a column. Count the number of children in each group and write that number in each column.
- Naturally, we all want to say if we like or didn't like the taste. But, research shows it can take up to 15 tastes to get our taste buds and minds to "like" some foods. Children should know that our taste buds change over time, and that sometimes we like a food item better based upon the way it is prepared. To help children keep their minds open to healthy foods consider these responses: "Thumbs up if you like beets right away." "Thumbs up if you need to try again later or try this food prepared another way."
- Review with the children how the beets grow and the health benefits.

Taste Test Extension

Rule of 15 "Put a food on the table at least 15 times to see if a child will accept it." Susan B. Roberts, Tufts University Nutritionist and Co-author of Feeding Your Child for Lifelong Health

For an additional tasting experience, prepare this recipe with children in class using different stations, or ahead of time, and serve it with this lesson, or on a different day.



Beet Chips (for 20 children)

(adapted from: <http://tasty-yummies.com/2012/08/08/crispy-baked-beet-chips-gluten-free-vegan/>)

3 Medium beets	1 tablespoon oil
1 teaspoon salt	Mixing bowl & spoon
Cookie sheet	Parchment paper, or a bit more oil
Child-safe Mandoline, or knife and cutting board	



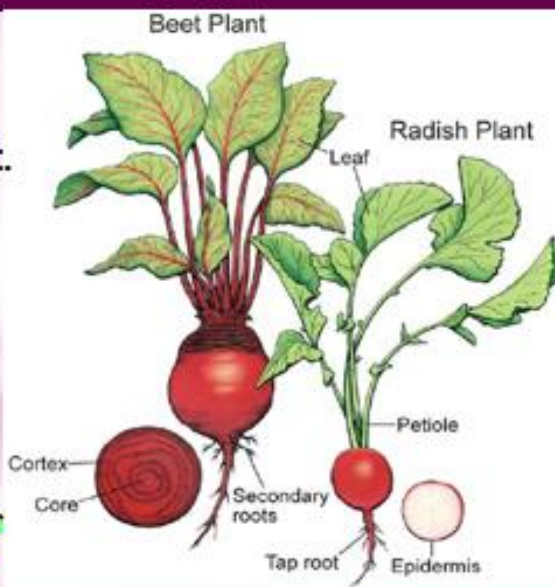
Note: These can be prepared by the students in the morning and then eaten for snack or as part of lunch.

1. Rinse the beets by putting them under running water and rubbing the entire surface to remove any soil.
2. Invite the students to wash their hands and come to the table for a cooking activity.
3. Demonstrate how to use the mandoline and have each student make 2-3 beet slices. Or an adult may use the knife and cutting board to slice beets into thin “chips.”
4. Have students measure and mix beets, salt and oil in mixing bowl.
5. Then have them place beet slices on the cookie sheet. Bake at 350 degrees for 20 to 30 minutes. Serve and enjoy!

How do Beets grow?

Beets grow in the ground.

We eat the taproot of the beet.



Why should we eat
Beets?

Vitamin K Vitamin A Vitamin C



Heals cuts



Healthy eyes



Healthy immune
system (prevents
colds)

Riboflavin
and Folate

Healthy heart
and blood



Manganese



Healthy bones