



Harvest Objectives

Children will identify that beans grow on a plant.

Children will describe and act out the lifecycle of the bean plant.

Children will taste a green bean.



Harvest Vocab

Fruit

Seed

Plant

Materials & Prep

Green Beans (at least one small piece for each child to taste)

1 Set Bean Life Cycle full page large cards (see separate document)

5-10 Sets Bean Life Cycle small cards (see separate document; set to print 4 pages per sheet and then cut each sheet into quarters for small cards)

Images (included at end of learning plan)

Taste Test Chart

Stickers (or small Post-It Notes)

Literature Connections

One Bean by Anne Rockwell

The Life Cycle of a Bean (Plant Life Cycles) by Linda Tagliaferro

From Seed to Plant by Gail Gibbons

Warm Up

- In order to engage the children and activate prior knowledge, show them the beans and pass them around so everyone gets to hold and/or touch them. Do not tell them what they are. Tell them to think of the name for the food, but to keep their answer inside their head. Then when everyone has held the beans, ask them, "What are these called?" Consider having everyone say the answer aloud on the count of three, this way you will know who in the group knows. Then discuss, have ever seen one before? Eaten one before? How was it prepared? Where do they think beans come from? How do they grow? (On trees, bushes?)
- In order for the children to explore more about the bean life cycle, have a common experience, and think about what they know, put the children in small groups (of 2-4 children), or have them work independently.
- Using the small cards, tell them that they get to put the cards representing the bean plant life cycle in order, starting with the seed planted in the soil. Allow one or two minutes for them to work and discuss. Then check-in with some children. Ask them, "Why do they think one piece goes before, or after, another? How do they know?"
- It is okay if the order is incorrect. Have the children leave the cards in the other they think is best and continue as a large group (below.) Then the children will be able to go back and fix their own mistakes.



- Note: For very young preschool students, have them work independently with an adult, perhaps during small group time, give them only the first two pieces and ask them to put them in order. Then give them the next two, to add on, etc.

Explain

- As a large group, using the large life cycle cards, discuss the correct card sequence. Have the children hold up the cards in the correct order in front of the group.
- Then to review, as a large group have the children act out the entire plant life cycle.
 - Seed—children crouch down into a ball, arms wrapped around knees
 - Germination—legs act as roots and they are slightly stooped over
 - Leaf Growth—stand taller and have their arms act as leaves
 - Flower Growth—their face is the flower and their arms wrap around their face
 - Pollination—one hand turns into a bee, touches their nose, and then respectfully touches a friend's nose
 - Immature Bean Seed Pods—extend the arms from the nose just a little bit to be a small seed pod
 - Beans—extend the arms from the nose entirely to be a big seed pod
 - Seed Dispersal—bean pods fall to the ground, or is eaten by a student for lunch
- Have the children go back to their small cards and make any corrections in the order. For children that need the reinforcement, ask them, “Why do they think one piece goes before, or after, another? How do they know?”
- As a large group, discuss the word “fruit” and explain that plant scientists consider a bean pod to be a fruit because there are seeds inside, but that chefs consider bean pods to be vegetables. Explain the words “seed” and “plant”, if needed.
- Explain why we should eat beans (healthy muscles, healthy blood, and healthy digestion) and for each example come up with an action to help the children remember. For example, for healthy muscles they can flex their muscles while saying “healthy muscles.” Also explain how to pick good beans (they should be smooth, firm, and unbroken.) Please see the next pages for images to share with the children.

Taste Test

- Give each child a bean to taste.
- Create a chart that says “I Like” with a smiley face and “I Don’t Like” with a sad face. Give each child a sticker, and ask them to vote by placing it in a column. Count the number of children that like, and don’t like beans, and write that number in each column.
- Review with the children how the beans 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



Preschool In-Class Learning Plan Green Beans

For an additional tasting experience, prepare this recipe with children in class using different stations, or ahead of time. Serve it with this lesson, or on a different day to expand the Harvest of the Month experience.

Baked Green Bean Fries (20 participants)

1 pound fresh green beans, ends trimmed
1/3 cup grated Parmesan cheese
2 eggs
Mixing bowls
Plate (one per child)

2 cups bread crumbs
1/4 teaspoon garlic powder
Salt and pepper to taste
Baking sheet and parchment paper

1. Heat oven to 425 degrees Fahrenheit. Line a large baking sheet with parchment paper.
2. In a mixing bowl, stir together the bread crumbs, parmesan cheese, garlic powder, salt, and pepper. Crack eggs into another bowl and whisk along with 2 tablespoons water.
3. Invite the students to wash their hands and then come to the table for a cooking activity.
4. Demonstrate how to dip the bean in the egg and then in bread crumbs. Then put the bean on the cookie sheet.
5. Bake for 15-20 minutes, until tender and golden brown. Allow to cool and serve.

6.

How do green beans grow?

Green beans grow on a plant. After pollination, the bean flowers swell into the bean pods we eat.



Why should we eat green beans?

Vitamin A



Healthy eyes

Vitamin C



Healthy immune system (heals cuts, prevents colds)

Manganese



Healthy bones

Folate



Healthy blood

Fiber



Healthy digestion
cleans out your system