



FLORIDA GREEN BEAN



DEAR TEACHER

This month's Harvest of the Month product is the savory green bean. Green beans are a popular plant for Florida which are easy to grow even in poor soil. They grow on a bush that is able to stand unsupported, unlike pole beans. Let's learn more about this Florida produce!

CLASSROOM RECIPE

FRESH GREEN BEANS WITH GARDEN DILL DIP



Serves 20-25

INGREDIENTS:

- Florida green beans
- 1 cup plain low-fat yogurt
- Lemon juice
- 1 tablespoon fresh dill, chopped
- 1 tablespoon crumbled feta cheese

PREPARATION:

1. Snap the ends off the green beans and rinse in cool, running water.
2. Stir together the yogurt, fresh dill and feta cheese.
3. Serve a sample of the dip and raw green beans to your students.

SPECIAL NEWS

Plan a winter harvest event before the holiday break. Connect with your school food service department to bring the school garden produce into the cafeteria. Seasonal recipes can be supplemented with fresh herbs and garnish from the garden. Classroom tasting parties are a great way to allow students to taste the fruits of their labor.

Florida Farm to School:
FarmToSchoolFL.com

National Farm to School Network:
www.FarmToSchool.org



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MATH



STANDARDS: MAFS.4.G.1.1, MAFS.4.MD.3.5, MAFS.4.MD.3.6, MAFS.4.MD.3.7

ESTIMATED TIME: 30 Minutes

OBJECTIVE: Students will measure the angle formed between two green beans. Students will classify the angle as acute, obtuse or a right angle.

MATERIALS:

- Harvest of the Month PowerPoint
- *Green bean Angles* Worksheet
- Florida green beans
- Class set of protractors

INTRODUCTION: Did you know? Florida ranks number one nationally in the production, acreage and total value of fresh market green beans. Florida green beans are available October to May.

GUIDED ACTIVITY: Teacher will review how to measure angles using a protractor. Teacher will define obtuse, acute and right angles by displaying the Angles PowerPoint slide. Working in pairs, students will take turns creating different angles with green beans and measuring them with a protractor.

INDEPENDENT ACTIVITY: Students will complete the *Green bean Angles* worksheet. Students will color the obtuse angles on their worksheet red, the acute angles blue and the right angles green.

Extension: Allow students to taste fresh green beans. Have students wash their hands before handling the beans. Try out this month's classroom recipe using fresh herbs.



SOCIAL STUDIES



STANDARDS: SS.3.E.1.1, SS.4.G.1.3

ESTIMATED TIME: 40 Minutes

OBJECTIVE: Students will identify the "Three Sisters" crops and compare foods eaten in the past to foods eaten in the present.

MATERIALS:

- Harvest of the Month PowerPoint
- *Compare and Contrast* Worksheet
- Coloring pencils
- Blank paper

INTRODUCTION: The "Three Sisters" crops corn, beans and squash were the staple agricultural crops of ancient cultures and Native Americans. The three crops complement each other by filling different ecological niches. Squash is a ground cover, which helps keep the soil moist; corn provides a trellis for the beans to grow up; and the beans (a legume) provide nutrients (nitrogen) to both the corn and squash plants. The "Three Sisters" provided a balanced diet complete with hearty vegetables, grains and protein (beans) for Native Americans. Review the *Three Sisters* PowerPoint slide.

GUIDED ACTIVITY: Teacher will ask students "what foods do you think that Native Americans used to eat? What foods might you see on their plates and why? What part of a healthy diet was missing from their plates?"

INDEPENDENT ACTIVITY: Students will complete the *Compare and Contrast* worksheet to compare the Native American diet to the modern diet. Ask students to consider the way the table, people, utensils, plates and eating environment might look in both situations. Encourage the students to share their answers with a partner.

Extension: Host a "Three Sisters" tasting event featuring menu items that contain corn, beans, and squash.



SCIENCE



STANDARDS: SC.3.N.1.1, SC.3.L.14.2, SC.3.N.1.3, SC.5.N.1.4

ESTIMATED TIME: 30 Minutes (15 minute daily observations)

OBJECTIVE: Students will determine which conditions cause a bean to sprout the fastest.

MATERIALS:

- Harvest of the Month PowerPoint
- *Sprouting Beans* Worksheet
- Class set of dried red kidney beans
- Small plastic sandwich bags and wet paper towels

INTRODUCTION: Teacher will review the life cycle of a plant – seed, sprout, seedling with roots, seedling with leaves, young plant and adult plant. Adult plants then flower and produce fruit, which contains seeds. The small beans inside fully mature green beans will sprout when planted.

GUIDED ACTIVITY: Each student will place their bean(s) on a folded wet paper towel and place it inside the bag. Divide students into four different groups. The first group will follow normal sprouting conditions and tape the open bean bags in a window sill where they will receive ample sunlight. The other three groups will change a variable (no sunlight, bag sealed but in the sun, no sunlight but bag open). Students will compare how fast their beans sprout compared to the other groups. What conditions caused the beans to sprout fastest?

INDEPENDENT ACTIVITY: Students will check their bags every other day and record their observations on the *Sprouting Beans* worksheet.

Extension: Host a bean race in your classroom with the Green Bean Harvest of Month Gardening Activity.



LANGUAGE ARTS



STANDARDS: LAFS.3.RI.1.2, LAFS.4.W.1.2

ESTIMATED TIME: 60 Minutes

OBJECTIVE: Students will write an informative piece explaining the life cycle of a bean plant.

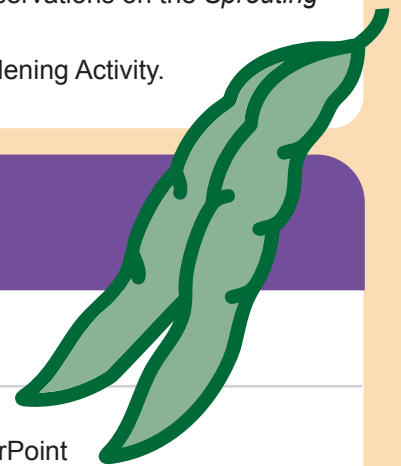
MATERIALS:

- Harvest of the Month PowerPoint
- *Write it!* Worksheet
- “O Say Can You Seed” by Dr. Seuss
- Coloring pencils

INTRODUCTION: Review the science lesson and discuss the life cycle of a bean plant. Teacher will read “O Say Can You Seed” by Dr. Seuss.

GUIDED ACTIVITY: In small groups, students will complete a reader’s theater. Students will read and act out pages 6 through 15 of the text.

INDEPENDENT ACTIVITY: Students will compose two paragraphs on the *Write It!* worksheet in response to the following prompt - describe the stages of plant growth from seed to harvest.



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For more information or to provide feedback, please visit us online

FarmToSchoolFL.com

TASTE TESTING IN THE CLASS

- Fresh green beans will “snap” when you break them in half. Look for the crispest beans and avoid buying soft or bendy beans.
- Keep them fresh! Store green beans in a ventilated plastic bag in the refrigerator.
- This month’s classroom recipe is super easy to prepare. Serve raw green beans to your students and talk about the flavor of fresh vegetables.

TASTE

NUTRITION EDUCATION

- Green beans, also known as the green bean or string bean, contain important nutrients such as fiber, potassium and vitamin C.
- Green beans are also a source of folate. Folate is important for cell production and heart health.
- Beans are a member of the legume family, which also includes lentils, soybeans and peas. Legumes help fight heart disease by improving cholesterol.

LEARN

SCHOOL GARDEN TIPS & TRICKS

- Beans are a great addition to any school garden. They are easy to grow and a great companion plant, as legumes are nitrogen-fixing plants.
- Choose pole bean varieties if you want your beans to climb. There are also bush bean varieties if you do not have a trellis in your garden.
- Directly plant your bean seeds into well-drained soil. Plant bean seeds 2 inches deep and space them two to four inches apart.

GROW

BOOK SUGGESTIONS

“Green Bean! Green Bean!”
by Patricia Thomas (Pre-K to Grade 3)

“Giggles the Green Bean Turns Stinkytown into Greentown”
by Lauren Davis (Pre-K to 4)

“Beans, Greens & Grades”
by D.S. Venetta (Grades 3 and up)

READ