



FLORIDA CAULIFLOWER



WANT TO START A GARDEN FROM SEEDS?

If you are looking for seeds to start a classroom garden, you can reach out to your local Institute of Food and Agricultural Sciences (IFAS) office to obtain seeds for Harvest of the Month gardening activities.

Cauliflower Florida Food Fare
<http://sarasota.ifas.ufl.edu/FCS/FlaFoodFare/Cauliflower.pdf>

Cauliflower Nutritional Benefits
<http://snap.nal.usda.gov/nutrition-through-seasons/seasonal-produce/cauliflower>

Florida Farm to School:
FarmToSchoolFL.com

National Farm to School Network:
www.FarmToSchool.org



DEAR TEACHER

This month's Harvest of the Month is cauliflower! The lesson plans, worksheets and activities provided were developed to guide your classroom's understanding of the origins and nutritional benefits of coveted cauliflower. We hope you are able to utilize all of the materials and be sure to encourage your students to try cauliflower at home.

CLASSROOM RECIPE

CRÈME DUBARRY (CAULIFLOWER SOUP)



Serves 50

INGREDIENTS:

- 2 ounces margarine
- 2 cups yellow onions, diced
- 18 ¾ pounds cauliflower heads, diced small
- 1 gallon low-sodium chicken stock
- 1 gallon low-fat milk
- 1 tablespoon salt
- 1 tablespoon pepper

PREPARATION:

1. Heat the margarine in a stock pot or steam kettle; add the onion and saute until the onion is translucent.
2. Add the cauliflower, stock and milk, bring to a boil and then simmer for 10-15 minutes, or until cauliflower is tender. Remove from heat and allow to cool slightly.
3. Add the salt and pepper; mix well.
4. Blend the soup using an immersion blender (if needed use a regular blender and blend in batches).
5. Optional: Add 1/2 tablespoon of ground cayenne pepper and 1/4 tablespoon of ground nutmeg to soup when blending.

This institution is an equal opportunity provider.

**MATH**

STANDARDS: MAFS.3.NF.1.3, MAFS.4.NF.1.1, MAFS.4.NF.1.2
MAFS.5.NF.2.3, MAFS.5.NF.2.5

ESTIMATED TIME: 45 Minutes

OBJECTIVE: Students will identify and create equivalent fractions.

MATERIALS:
No additional materials required

INTRODUCTION: Teacher will define equivalent fractions. Write two equivalent fractions on the front board and draw two blank circles. Ask for two volunteers to shade the portion of the circle represented by each fraction. Discuss with the whole group whether or not the two circles are equivalent. Finally, have students find additional equivalent fractions for those on the board by multiplying or dividing the numerator and denominator by the same number.

GUIDED ACTIVITY: Students will complete the “Fraction Florets” worksheet to identify equivalent fractions. Student will draw a line from the “fraction floret” to the correct head of cauliflower.

INDEPENDENT ACTIVITY: *Extension:* Students will compare a set of grade-appropriate fractions. The teacher will create a class set of fraction cards, including equivalent fractions, and provide each student with one card. Draw a number line on the classroom floor using scotch tape and ask students to line up in order from the smallest to the largest fraction. Review the different methods for comparing fractions (reducing fractions, finding equivalents, converting to decimals or percentages).

**SOCIAL STUDIES**

STANDARDS: SS.5.E.1.3, SS.4.E.1.1, SS.3.A.1.2

ESTIMATED TIME: 45 Minutes

OBJECTIVE: Students will trace the development of farm technology from the 18th century to present day.

MATERIALS:
• Scissors

INTRODUCTION: Teacher will ask the students, “What is technology?” and formulate a class definition based on their responses. Technology is often defined as “the use of science and engineering to create useful tools and things to solve problems.” Next, have students brainstorm the different types of technology used on a farm. Document their answers on chart paper. In pairs, ask students to consider how modern technology has improved farming practices. What “problem” does each piece solve?

GUIDED ACTIVITY: Each student will receive an “agriculture picture card” with a piece of technology used in the field. Ask students to line themselves up from the oldest pieces of technology to the newest. Ask students to guess what their tool was or is used for. Use the “Ag Technology” cards provided. *See the PowerPoint for additional information and examples of technological advancements in the field.*

INDEPENDENT ACTIVITY: Students will create their own piece of farm technology using the “Ag Technology” worksheet provided.



SCIENCE



STANDARDS: SC.4.L. 16.1, SC.4.L. 16.3, SC.4.L. 16.4

ESTIMATED TIME: 45 Minutes

OBJECTIVE: Students will identify the anatomy of honey bees and explain the process of pollination.

MATERIALS:
Cheesy snack such as Pirates Booty (optional)

INTRODUCTION: *Background:* Bees pollinate nearly all commercial food crops, helping to create nearly one third of the world's food supply. While pollination is not a requirement for cauliflower plants to develop into the vegetable we eat, they do play an important role in seed production.

Teacher will describe that honey bees live in large groups called colonies. The colony is divided into three castes: queen bee, worker bees and drones. The queen is responsible for laying eggs. The worker bees help care for developing larvae, clean the hive and collect pollen, nectar and water. Drones are male bees whose sole purpose is to mate with the queen. *See the PowerPoint for additional information and resources.*

GUIDED ACTIVITY: Have students observe the magnified bee on the PowerPoint. In small groups, students will discuss what they observe and create a detailed list of their observations. Next, students will use the "Bee a Scientist" worksheet to label the different parts of the bee.

INDEPENDENT ACTIVITY: Students will act out the process of pollination. Assign one student to be the queen bee, six students to be flowers, ten to be worker bees, and the remaining students can act as worker bees and drones that remain in the hive. Each "flower" will have a small bag full of a cheesy puff snack. As the worker bees make their way to each flower, explain the pollination process (see PowerPoint for resources). First, pollinators suck up the nectar from a flower, catching the plant pollen that sticks to their bodies (represented by the cheese which will stick to students' fingers when they reach into the bag). Next, the "bee" will land on another flower where the pollen will rub off their body onto the pistil of the flower. If the pollen ends up near the opening of the pistil (stigma), it will make its way down the tube (style) to the ovary. Seeds are formed when the pollen combines with the plant ovary and fertilization occurs.

Extension questions: Why are bees important? How do they contribute to a healthy ecosystem? What would happen if bees became extinct? How would this affect farmers? As a writing activity ask students to create their own "Diary of a Worker Bee" story.



LANGUAGE ARTS



STANDARDS: LAFS.L.1.1, LAFS.L.1.2

ESTIMATED TIME: 30 Minutes

OBJECTIVE: Students will choose the appropriate punctuation for a series of sentences about cauliflower. Students will arrange the sentences in order to make a story.

MATERIALS:
No additional materials required

INTRODUCTION: Teacher will review punctuation and capitalization rules for commas, quotation marks, end marks and proper nouns. Teacher will prepare a few practice sentences on the front board and ask students to come up and correct each sentence. *Refer to the Cauliflower Harvest of the Month PowerPoint for examples.*

GUIDED ACTIVITY: Students will read and edit the sentences on "Correcting Cauliflower" worksheet provided.

INDEPENDENT ACTIVITY: Students will number each sentence in order so that when combined, they create a cohesive story.



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

FarmToSchoolFL.com

TASTE TESTING IN THE CLASS

- When asking for feedback from students, have them use positive adjectives.
- Ask students to compare broccoli and cauliflower.
- Try cauliflower in different forms: raw, steamed or even mashed!

TASTE

NUTRITION EDUCATION

- Cauliflower is high in fiber, vitamin C, folate and potassium.
- This edible flower is fat-free and cholesterol-free. One cup is about 25 calories.
- Half a cup of cooked cauliflower is equal to one serving of your daily vegetables.

LEARN



SCHOOL GARDEN TIPS & TRICKS

- Cauliflower is a cool season crop and is in the same plant family as broccoli, collards, cabbage and kale.
- The best time to plant cauliflower starts from October to January.
- Plant cauliflower in a grid spaced 2 feet apart to give them enough room to grow.
- The leaves protect the growing cauliflower head from yellowing. It takes up to 3 months for a cauliflower to mature for harvest.

GROW

BOOK SUGGESTIONS

“The Trouble with Cauliflower”
by Jane Sutton

“Cabbages and Cauliflowers:
How to Grow Them”
by James J. H. Gregory

READ