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CELEBRATING 30 YEARS
2015-2016

ideas with IMPACT

idea packet

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Cafeteria-Garden Connections

Garden-to-Cafeteria

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Goals and Objectives

Standards:

MAFS.3.MD.1.2
Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units.

MAFS.3.NF.1.1
Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.

LAFS.3.W.1.2

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

a. **Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.**
b. **Develop the topic with facts, definitions, and details.**
c. **Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.**
d. **Provide a concluding statement or section.**

LAFS.3.W.1.1

Write opinion pieces on topics or texts, supporting a point of view with reasons.

a. **Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.**
b. **Provide reasons that support the opinion.**
c. **Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.**
d. **Provide a concluding statement or section.**

Course Overview

This project makes it possible for students to incorporate produce from their school gardens directly into the school's lunch menu. The Education Fund, with the help of Miami-Dade County Public Schools Department of Food and Nutrition and support from Health Foundation South Florida has created an easy system for schools to use the fresh produce from their gardens.

Teachers will collaborate and plan with cafeteria managers so that students can harvest from the school garden and deliver it to the cafeteria. Students will be able to measure harvests for the cafeteria and learn how to integrate it into the existing menu. In the classroom they will learn fractions through recipes used by the cafeteria manager. They will also apply this to writing opinion pieces and expository writing about cooking, harvesting and eating.

This project will challenge students to be creative with their resources while encouraging them to focus on healthy eating habits. They will increase their consumption of fresh fruits and vegetables while learning math and language arts skills.

Lesson Plans

Preparations:

Please review the following items before planning this project with your students:

Before starting this project, you should be familiar with the garden-to-cafeteria procedures that are outlined by the Miami-Dade County Public Schools Department of Food and Nutrition.

It is imperative to receive clearance from the administration and to have a planning session with the cafeteria manager so that they are aware of the procedures as well.

You must schedule the days for including school garden items in the lunch program with the cafeteria manager. DO NOT bring items to the cafeteria if you have not scheduled it.

Having a school garden is also a prerequisite, although it is not necessary to have an extensive harvest, even a small amount of herbs will suffice for this project.

Please review the safety tips and classroom management tips for working with students in the garden

It will be necessary to become familiar with the proper harvesting techniques for various items in the school garden.

Day 1

Materials:

large food grade container

large scale

garden clippers or scissors

clipboards and paper

paper bags

Procedure:

Math:

Divide your class into groups of 3-5

Choose an item from the garden for each group.

Demonstrate to each group how to harvest the item without damaging the plant.

Choose a group leader, and give one pair of clippers and a paper bag to each group.

Students take turns harvesting one or two pieces and adding them to a paper bag.

The group leader places the bag on the scale and the students record the amount on a sheet of paper.

Then they place their harvest in the large food grade container and add write their measured amount onto a class chart.

When all groups complete the measuring, they add up the total number of grams that were harvested.

The large container is then delivered to the cafeteria manager.

Language Arts

Discuss the value of fresh, organic, vegetables as part of your diet. Explain how things are sometimes frozen or canned with preservatives and chemicals. Have students write an opinion piece about fresh, organic, ingredients as part of their lunch.

Day 2

Materials:

large scale, large food grade container, garden clippers or scissors, clipboards and paper, paper bags

Procedure:

Math:

Divide your class into groups of 3-5

Explain that each group will be harvesting the same item.

Have students count the number of groups and then write the total number on each bag so each group has the same number

Explain to students that the class is being divided into fractions and that each bag represents a fraction of the whole

have students write the number “1” as the numerator.

Demonstrate to each group how to harvest the item without damaging the plant.

Choose a group leader, and give one pair of clippers and a paper bag to each group.

Students take turns harvesting one or two pieces and adding them to a paper bag.

Then they place their bag in the large food grade container.

Explain that fractions can be used to distribute food equally.

Discuss how fractions can help distribute the harvest to the different groups and how the number of groups is the same as the denominator.

Demonstrate what happens when you give more than one bag to a group.

Ask the students what fraction of the harvest the group with more than one bag received.

Repeat this several times to emphasize the concept of numerator and denominator.

Take the harvested items to the cafeteria manager

Language Arts:

Review the idea of using fractions to share food. Show students an apple and explain how it could be divided so that everyone in the class gets a piece. Students write an explanatory text about how they can use fractions to divide food equally to share with their friends.

Resources

http://nutrition.dadeschools.net/procedures/B-18.pdf
procedures from the Miami-Dade County Public Schools Department of Food and Nutrition.

http://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?article=1103&context=gs_rp&sei-redir=1#search=%22study%20garden%20cafeteria%20fresh%20fruit%20vegetable%20consumption%22
Research paper on use of school gardens in farm-to-school programs

http://www.choosemyplate.gov/
Free teacher handouts and games about nutrition

http://www.lifelab.org/wp-content/uploads/2010/12/EOM_Tips.pdf
An article about effective classroom management in outdoor labs

http://www.agclassroom.org/ny/resources/pdf/activities/harvest.pdf
Unit on harvesting

http://foodsystems.msu.edu/uploads/files/garden_to_cafeteria_guide.pdf
Step-by-step guide for garden-to-cafeteria programs

http://www.changelabsolutions.org/publications/school-garden-produce
Federal policy on garden-to-cafeteria programs

http://www.sdchip.org/media/4827/Garden%20to%20Cafeteria%20Program%20Resources.pdf
Garden-to-Cafeteria program resources

http://www.homegrown.org/forum/topics/harvesting-herbs-101-basil-chives-cilantro-coriander-mint-parsley
Instructions on harvesting common culinary herbs

Garden-to-Cafeteria Log

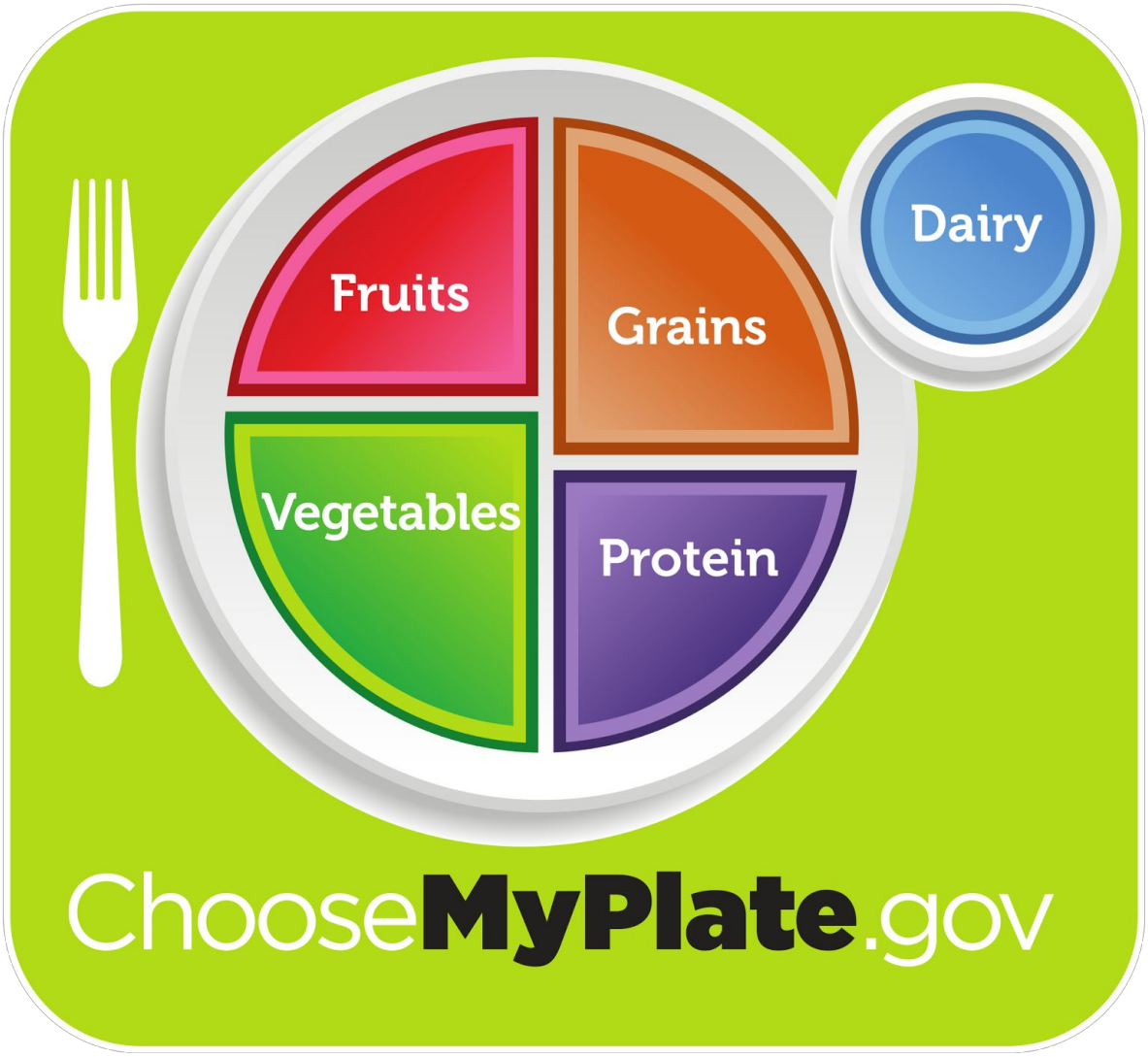
Name of School_____

Cafeteria Mananger_____

Teacher 1_____

Teacher 2_____

Date	Item Harvested for the Cafeteria	Cafeteria Manager's Signature	Teacher's Signature


Fruits
Grains
Dairy
Vegetables
Protein
ChooseMyPlate.gov

Harvesting

Herbs are ready for harvest when the flower first buds, and continue to be viable until just before the flowers are fully open. This is the time when the leaves contain the highest level of volatile oils, which translates into lots of flavor. You'll want to ensure that you don't cut too much from the plant. This way the plant will continually produce over a longer period of time, and you'll have fresh herbs when you need them. Snip only a few leaves or sprigs from each plant – the more you leave on the plant the faster it will recover, allowing for higher yields. When the plant is harvested, it can leave areas of the crop exposed, and the hot mid-day sun can dry out the plants oils. If at all possible, try to take sprigs in the morning, or later in the day, to mitigate this issue. Using scissors or a sharp knife, cut the sprigs from at least four to six inches from the base of the plant.

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APPLY FOR AN IMPACT II ADAPTER GRANT!

M-DCPS teachers, media specialists, counselors or assistant principals may request funds to implement an IMPACT II idea, teaching strategy or project from the Idea EXPO workshops and/or curriculum ideas profiled annually in the ***Ideas with IMPACT*** catalogs from 1990 to the current year, 2015-16. Most catalogs can be viewed at The Education Fund website at www.educationfund.org under the heading, "Publications."

- Open to all K-12 M-DCPS teachers, counselors, media specialists
- Quick and easy reporting requirements
- Grants range from $150 - $400
- Grant recipients recognized at an Awards Reception

To apply, you must contact the teacher who developed the idea before submitting your application. Contact can be made by attending a workshop given by the disseminator, communicating via email or telephone, by visiting the disseminator in their classroom, or by having the disseminator visit your classroom.

Project funds are to be spent within the current school year or an extension may be requested. An expense report with receipts is required by May 2, 2016.

APPLICATION DEADLINE:
December 11, 2015

Apply online at www.educationfund.org

For more information, contact:
Edwina Lau, Program Director
305.558.4544, ext. 113
elau@educationfund.org

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Ford Motor Company Fund and Community Services builds communities through volunteerism and partnerships with nonprofit organizations that focus on education, preserving America's heritage, and automotive safety.

The Education Fund's IMPACT II program offers teachers new ways to engage South Florida students.

Ford salutes your efforts to create a stronger, more innovative future for your classroom.

www.community.ford.com

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