

Tisch Report

Expanding Nutrition Education Programs in New York City Elementary Schools

**Understanding Practice** to Inform Policy



## Laurie M. Tisch Center for Food, Education & Policy Program in Nutrition at Teachers College, Columbia University

The center cultivates research on healthy eating and a just and sustainable food system and translates it for educators, community advocates, and policy makers, with particular attention to schools as critical levers for learning and social change.

### This report is based on the doctoral dissertation of:

Kathleen Joyce Porter, PhD, RD

Bringing Nutrition Education Programs from Outside Sources into the Classroom: The Experience of New York City Public Elementary Schools Graduated May 2013

**Dissertation Committee:** 

Isobel R. Contento, PhD, (Advisor)

Mary Swartz Rose Professor of Nutrition and Education Teachers College Columbia University

Pamela A. Koch, EdD, RD

Adjunct Associate Professor Teachers College Columbia University

Randi Wolf, PhD

Ella McCollum Valteich Associate Professor of Human Nutrition Teachers College Columbia University

Jeff Henig, PhD

Professor of Political Science and Education Teachers College Columbia University

Michael Rosenbaum, MD

Professor of Clinical Pediatrics and Clinical Medicine Columbia University College of Physicians and Surgeons

Report text prepared by Renata Peralta, doctoral student in the Politics and Education Program, Department of Educational Policy and Social Analysis at Teachers College and editing from Claire Uno.

Photo and illustration credits:

Cover photo: iStock by Getty images

Icons in program tags: illustrations by Vladimir Yudin retrieved from 123rf.com

Report citation: Porter, KJ, Koch, PA, Peralta, R, Contento, IR. *Expanding Nutrition Education Programs in New York City Elementary Schools. Understanding Practice to Inform Policy.* Laurie M. Tisch Center for Food, Education & Policy, Program in Nutrition at Teachers College, Columbia University. March, 2014.

Initial inspiration for this study by Lynn Fredericks, Family Cook Productions, thank you Lynn.

External review by Christiane Baker.

For more information about this study or the Laurie M. Tisch Center for Food, Education & Policy please contact Claire Uno, Assistant Executive Director at 212-678-3693 or cu2155@tc.columbia.edu

## Table of Contents

Executive Summary4
Nutrition Education Overview
Nutrition Education Programs Working in Schools
Methodology
Characteristics of Nutrition Education Programs in New York City Schools
Distribution of Nutrition Education Programs in New York City Schools
Successes
Recommendations
Conclusions and Future Research
Nutrition Education Programs Resource Guide
Introduction
Tag Descriptions
Programs At a Glance
Program Listing
Bibliography

## Executive Summary

#### Introduction

As a nation we are working collectively to reduce the high rates of childhood obesity. Access to health-promoting foods is the foundation we need to promote our children's health. Yet, access alone is not enough. When access to healthy foods is combined with nutrition education, this can have a powerful impact on changing children's eating behaviors in ways that decrease childhood obesity. Schools are important places for promoting children's development by giving them access to food and providing quality nutrition education. Quality nutrition education in schools can include art, cooking, gardening, physical activity, learning about the food system, and a STEM focused curricula. Also, helping children build the desire to make healthy food choices fits into a whole-child approach to education, and may support academic achievement.

There are many Nutrition Education Programs (NEPs) run by non-profits, agencies, departments of health, and universities that work alongside teachers, school administrators and staff to increase quality nutrition education in schools. NEPs provide nutrition expertise, materials, curricula, and teacher professional development. This enables students to have more and higher quality nutrition education without overtaxing classroom teachers who are already expected to do so much for our students.

This report highlights a study conducted by the Laurie M. Tisch Center for Food, Education & Policy about NEPs that reach New York City public elementary schools in three boroughs. It describes the kinds of NEPs available, their distribution, and if they are reaching the schools that need them the most. The report also details what is going well, and how accessibility to NEPs can be improved. Additionally, the resource section at the end of the report describes many of the NEPs available to elementary schools in New York City.

### Methodology

We created a NEP database from an initial web search and previous knowledge plus feedback from NEP staff about other programs until reaching saturation. We sent a survey to the 34 identified NEPs on the basic traits of their program including mission, the schools that implemented their program, and schools that implemented the program well. We received responses from the 20 included in this report.

An elementary school database was also created using data from: 1) the Department of Education for 3 boroughs (Brooklyn, Manhattan and Queens), 2) the New York State School Report Card and Accountability Reports, and the 3) New York City Department of Health and Mental Hygiene.

We combined together the schools database with the NEPs database to determine which schools received services from NEPs during the 2011-12 school year. This information allowed us to analyze the overall saturation of NEPs in schools and the differences in the distribution of NEPs by geographic location, school traits, and community need.

Five of the 20 NEPs were defined as "needs-based" since they specifically target schools with a high percentage of students who qualify for free/reduced price lunch (FRL), or schools in neighborhoods with high chronic disease rates. From this we examined the extent to which total NEPs and need-based NEPs reached the highest need schools, to determine if there was equitable distribution.

Finally, we interviewed 20 community members from schools with active NEPs to learn how NEPs were working in schools.

#### Results

Characteristics of Nutrition Education Program in New York City schools: The NEPs available to New York City schools vary widely in factors such as how long they have been in existence, where they get their funding from, what kind of content they cover and what roles they play within schools. This section shares data on the characteristics of the NEPs reviewed for this study.

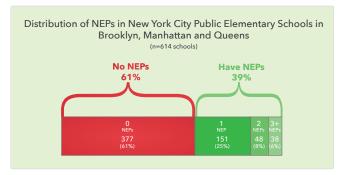
- The majority of NEPs operating today started in 2005 or later.
- Most of the programs receive at least some funding from foundations and corporations. Although almost half of the programs receive some funding from New York City government, few receive funding at the state or federal level.
- While the greatest number of programs are taught by classroom teachers and program staff, a significant number utilize just classroom teachers or just program staff.
- Most of the programs provide multiple types of implementation support, extending the schools' ability to provide nutrition education to students.
- The NEPs available in New York City schools vary widely in terms of how much of the school year they span and how many total sessions they offer, with over half of the NEPs having six or more sessions.
- Many NEPs address more than one academic subject with 15 of the 20 addressing three or more subjects.

**Distribution of Nutrition Education Program in New York City Schools:** This section presents data on how many schools have any NEPs followed by information regarding how total NEPs and needs-based NEPs are distributed. Specifically we present data on distribution across schools by the percentage

## Executive Summary

of students who qualify for FRL, neighborhood childhood obesity rates, presence in District Public Health Office (DPHO) neighborhoods, and borough.

- Overall, only 39% of school in the three boroughs that were studied (Manhattan, Brooklyn, and Queens) had any of the 20 NEPs in their schools. Most of the schools that had NEPs had 1. Fourteen percent had more than 1 NEP with 4 schools having 5 or more NEPs. These data show that there are many elementary schools in New York City that are not being served by NEPs.
- Needs-based NEPs are concentrated in schools with >50% FRL. However, schools with <50% FRL have slightly higher proportions of total NEPs that their more in-need peers.
- NEPs are more likely to be in schools within the lowest and highest rates of childhood obesity. The proportion of needsbased NEPs is higher in neighborhoods with 23.1–26.5% obesity rates.
- Schools in DPHO neighborhoods have a slightly lower proportion of total NEPs but a higher proportion of needsbased NEPs.
- Manhattan has a slightly higher proportion of schools with total NEPs than the other two boroughs.



#### Successes

We found that both NEPs and schools were experiencing successes in terms of nutrition education implementation. The successes identified in this section come from data from the NEP and school databases as well as from the 20 interviews with community members from schools with active NEPs.

#### **NEP Successes**

- NEPs are targeting high-needs schools.
- Most NEPs have collected data, or are collecting data on their students.
- NEPs are helping schools achieve their mission.

#### **School Successes**

• Schools use multiple efforts to strengthen the impact of

NEPs, such as teaching nutrition units in science, health and other subjects.

- Schools with a range of capacities have NEPs.
- Schools are using creative ways to address barriers to nutrition education.

#### Recommendations

For Schools: Schools can use this guide to find NEPs and choose the one that fits the school's needs. They can also evaluate if they are providing enough nutrition education to help students make healthy choices and, if not, consider adding more NEPs to their schools. Finally, NEPs can be successfully implemented if there is a team of champions in the school and NEPs can complement each other.

For NEPs: NEPs can make sure that more students, in particular those in high-need schools, are reached by considering a sliding scale fee structure and using multiple factors as a measure of need. Also, NEPs can assess how they are supporting the school, rather than being seen as something additional. Finally, NEPs can promote the variety of benefits they provide to schools such as supporting academic success, improving eating behaviors, and building community.

For Funders and Policy Makers: Funders and policy makers can increase funding for NEPs to be responsive to the urgency around the obesity epidemic while working towards a goal of 80% of NYC schools with NEPs by 2020. This can be done through increased geographically and need targeted funding by government and others, and policy mandating nutrition education in schools.

#### Conclusions

While NEPs are in many New York City public elementary schools, there is much room for expansion, particularly among schools in neighborhoods with high rates of childhood obesity and schools with large proportion of low-income students.

### **Future Research**

This study should be replicated in other metropolitan areas to benefit those municipalities and contribute to a greater understanding of NEPs in schools.

In New York, further research could explore the cumulative effect of multiple NEPs in schools and communities and measure the effectiveness of each program. Additionally, future research can track the number of NEPs and distribution of NEPs in schools over time. This research should be done across all five boroughs of New York City.

## Nutrition Education Overview

### **Access and Education**

As a nation we are working collectively to reduce the high rates of childhood obesity. One effort is led by First Lady Michelle Obama: The Let's Move! initiative. One of the Let's Move! pillars is "improving access to healthy, affordable food." Access to health-promoting foods is the foundation we need to promote our children's health. Yet, access alone is not enough. When access to healthy foods is combined with nutrition education, this can have a powerful impact on changing children's eating behaviors in ways that decrease childhood obesity. As an example, the initial evaluation of the Cookshop™ program (Liquori, 1998), now in 1300 New York City classrooms and run out of the Food Bank for New York City, demonstrated that only students who received classroom cooking lessons in which they cooked the vegetable and whole grain recipes being served in the cafeteria ate these "new" foods.

### What is Nutrition Education All About?

Quality nutrition education goes beyond teaching facts about nutrients or merely telling people what to and what not to eat. Growing lettuce in a school garden, making and eating a salad, and counting out teaspoons of sugar in large sized sodas are all nutrition education. Nutrition education gets people fired up so they truly want to eat more vegetables, whole grains, fruits, and other healthy foods. Nutrition education encourages people to cook and eat meals with families and friends. Nutrition education advocates for environments where healthy choices are the easy choices. Nutrition education teaches skills such as choosing affordable, fresh, locally grown foods at farmers markets. Nutrition education raises awareness that our food supply has an overabundance of large sizes of chips, sweetened beverages, fast foods, candy, and baked goods that the food industry formulates to be irresistible. These broad experiences with food can empower people to make food choices not only promote personal health but promote ecological sustainability. When we eat more plant-based, whole foods and try to source some of our food locally we can reduce the carbon footprint of our diet.

# Nutrition Education Programs Working in Schools

### **Nutrition Education in Schools for Child Development**

Another pillar of the Let's Move! initiative is "providing healthy food in schools." Schools are important places for promoting children's development by giving them access to food. Many schools also promote a whole-child approach to education in which education is not just about academic learning but also broadly about children's health and well-being. Food and nutrition education go beyond learning the basic subjects through exciting and thoughtful activities that are applicable in students daily lives now, and long into the future. Additionally, there has been some promising research on healthy eating improving academic performance (Pucher, Boot, & De Vries, 2012).

#### We Need More Nutrition Education in School

Nutrition education is most commonly taught as part of health education and science units, yet nationally students receive only about 10 to 13 hours of nutrition education a school year (US Department of Education, National Center for Educational Statistitics, 2000). Research indicates that 30 to 50 hours a year (Connell, Turner, & Mason, 1985) of good quality, behaviorally focused nutrition education is needed to provide students with the motivation and skills they need to make healthy food choices.

### **School Capacity for Nutrition Education**

Most schools have limited capacity to provide 30 to 50 hours of nutrition education, given academic requirements, standardized testing, and many other expectations that are put upon schools. Additionally, the majority of schools do not have staff with expertise in nutrition. There are many Nutrition Education Programs (NEPs) run by non-profits, agencies, departments of health, and universities that work alongside teachers, school administrators and staff to increase schools' capacity to do nutrition education. This report is about those programs.

# Nutrition Education Programs Working in Schools

### **How NEPs Benefit Schools**

NEPs are a valuable way for schools to increase good quality nutrition education. NEPs provide nutrition expertise, materials, curricula, and teacher professional development. This enables students to have more and higher quality nutrition education without overtaxing classroom teachers who are already expected to do so much for our students.

NEPs take many forms: cooking classes, assemblies, social marketing campaigns. Some NEPs provide field trips to farmers markets and botanical gardens. Some help schools build gardens and provide garden-based lessons. While others provide full curricula connected to academic subjects like math and science.

### **Report Overview**

This report highlights a study conducted by the Laurie M. Tisch Center for Food, Education & Policy about NEPs that reach New York City public elementary schools. The report describes what kinds of NEPs are available, how they are distributed, and if they are reaching the schools that need them the most. The report also details what is going well, and how accessibility to NEPs can be improved. Additionally, this report provides a resource section that describes many of the NEPs available to elementary schools in New York City.



## Methodology

### **Creating a NEP Database**

We used web searches and previous knowledge to create an initial list of the organizations that have NEPs available to New York City schools. We distributed this initial list to NEP staff members and asked them to share other programs with us. We continued to do this sharing and expanding until we could not come up with any additional NEPs. This process yielded 34 different NEPs that were implemented in schools in New York City during the 2011-12 school year.

We sent a survey to each NEP that asked for basic traits of their program, the schools that implemented their program during the 2011-2012 school year, and schools that implemented their program well. We received this information back from 20 of the NEPs working in New York City Schools. Of the 14 NEPs who did not supply information for this study, none serviced a large number of schools, and thus not including them would not significantly affect the results.

We also determined which NEPs had a mission to specifically target schools in high poverty neighborhoods and/or neighborhoods with high levels of obesity, diabetes or chronic diseases. We considered these "needs-based NEPs." Five of the 20 NEPs investigated for this study were "needs-based NEPs."

### **Creating a School Database**

The New York City Department of Education has over 1700 schools and serves 1.1 million students, making it the largest public education system in the United States. For this study, we were interested in elementary schools, of which there are over 900. To make this study more manageable, only three of the five New York City boroughs were researched: Manhattan, Brooklyn, and Queens, which had 614 elementary schools during the 2011-12 school year. These three boroughs may not fully reflect the city has a whole, but serve as a starting point for understanding the overall distribution of NEPs and how they are reaching high needs schools.

Through public data available from the Department of Education, we generated a list of the public schools in Brooklyn, Manhattan and Queens. Then, using data available from the New York State School Report Card and Accountability Reports, we produced a school database that included school administrative data, geographic information, school traits, student demographics, and student achievement information. We also used publicly available data from the New York City Department of Health and Mental Hygiene to determine neighborhood childhood obesity rates, and whether or not schools were within one of the three District Public Health Office neighborhoods in New York City.

## Methodology

### **Combining Databases**

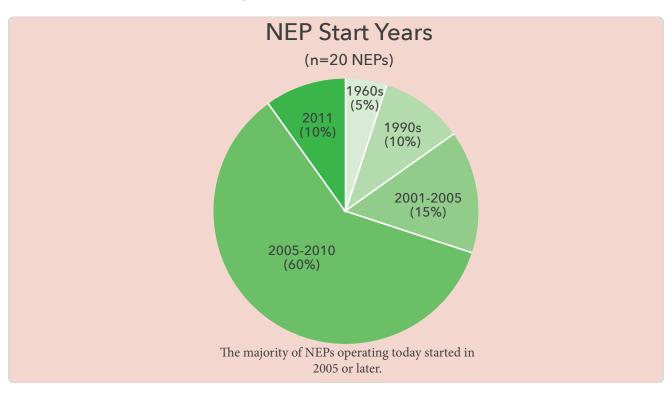
We combined together our schools database with our NEPs database to determine which schools received services from NEPs\* during the 2011-12 school year. This information allowed us to analyze the overall saturation of NEPs in schools and if there were differences in the distribution of NEPs by geographic location, school traits, and community need.

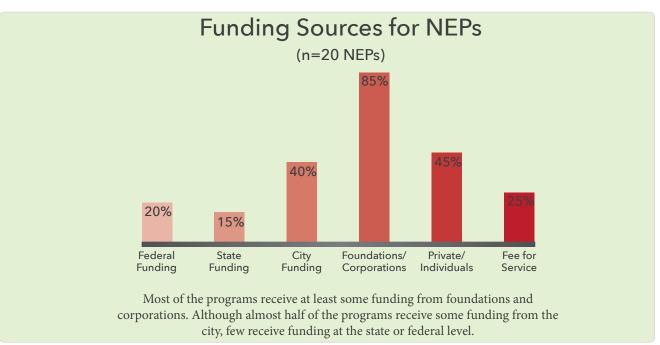
### **Exploring How NEPs Work in New York City Schools**

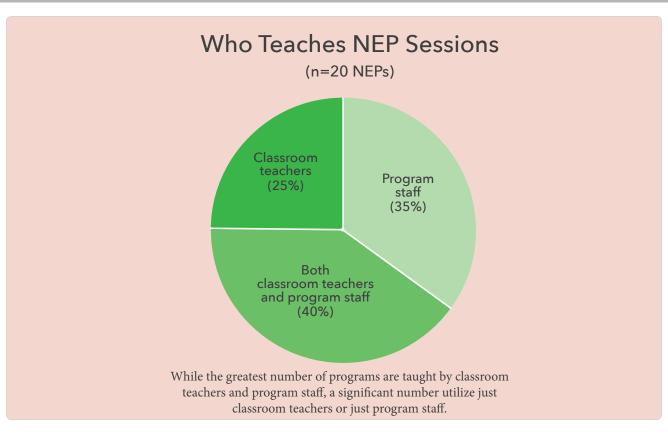
To learn how NEPs were working in schools, and identify successes, we conducted 20 interviews with community members from schools with active NEPs. Community members described their perceptions about the benefits and barriers of nutrition education in the classroom as well as the actions undertaken in the school that permit program initiation, implementation, and institutionalization.

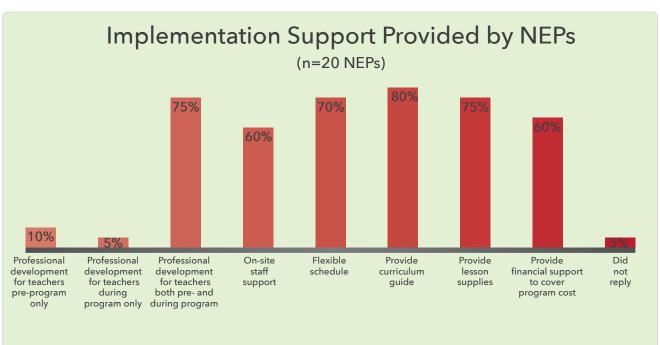
\* For this analysis, we used data from 20 NEPs that agreed to participate in this study and provided data on the schools they worked with in New York City.

The NEPs available to New York City schools vary widely in factors such as how long they have been in existence, where they get their funding from, what kind of content they cover and what roles they play within schools. This section shares data on the characteristics of the NEPs reviewed for this study.

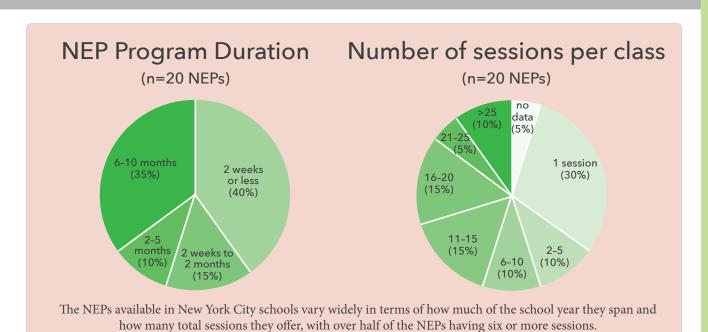


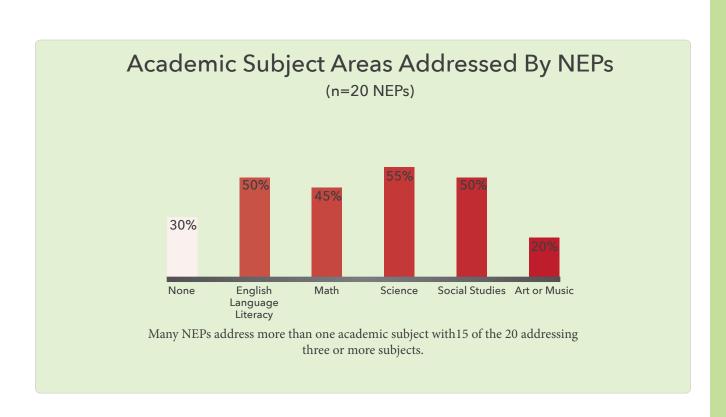






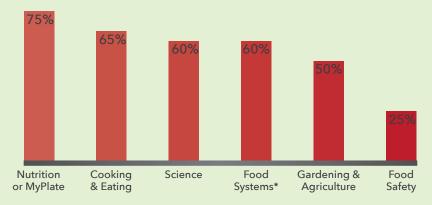
Most of the programs provide multiple types of implementation support, extending the schools' ability to provide nutrition education to students.





### Food and Nutrition Content Area Covered By NEPs

(n=20 NEPs)



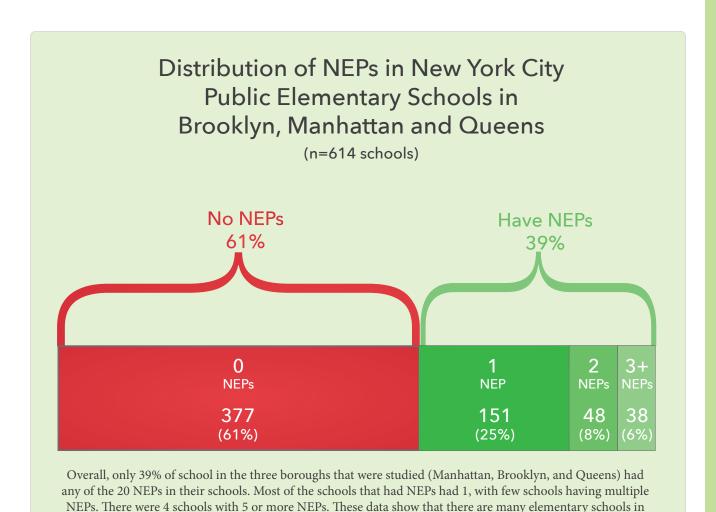
Of the programs studied, the majority cover nutrition and MyPlate with only a quarter addressing food safety. Many of the NEPs cover multiple content areas — 13 programs address two or more.

Many programs address content areas not traditionally thought of as school-based nutrition education such as cooking and eating, gardening and agriculture and food systems.

\* Covering food systems means discussing the system that it takes to grow or produce our food including transporting, processing, packaging and marketing our food. Discussions also address the energy, waste and pollution that are involved in producing our food. With over half of NEPs reporting that they cover food systems, students are learning knowledge and critical thinking skills that can help them become thoughtful about their future food choices. The staff of NEPs are probably more likely than school teachers to have the background necessary to understand and teach about food systems, making NEPs an excellent way to expand food system education.

## Distribution of Nutrition Education Programs in New York City Schools

This section presents data on how many schools have any NEPs followed by information regarding how total NEPs and needs-based NEPs are distributed. Specifically we present data on distribution across schools by the percentage of students who qualify for free/reduced price lunch, neighborhood childhood obesity rates, presence in District Public Health Office (DPHO) neighborhoods, and borough.

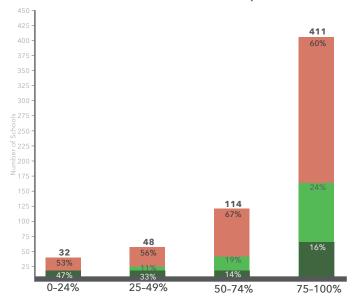


New York City that are not being served by NEPs.

## Distribution of Nutrition Education Programs in New York City Schools

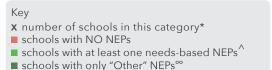
### NEP Distribution by Free/Reduced Price Lunch Eligibility

(n=605 schools)

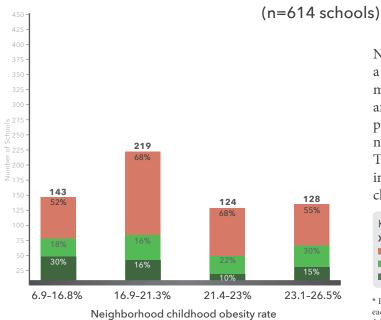


Percentage of students eligible for free/reduced price lunch

Percent of students eligible for free/reduced price lunch (FRL) is a measure of socio-economic status (SES). Lower SES is associated with higher obesity rates and poorer diet quality. Needs-based NEPs are concentrated in schools with >50% FRL. However, schools with <50% FRL have slightly higher proportions of total NEPs that their more in-need peers. This is indicates a need for more total NEPs in schools with >50% FRL.

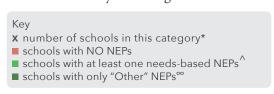


### NEPs Distribution by Neighborhood Childhood Obesity



Neighborhood childhood obesity percentages based on data from: Buchholz N, Resnick S, & Konty K. (2012). The New York City Community Health Survey Atlas, 2010: The New York City Department of Health and Mental Hygiene.

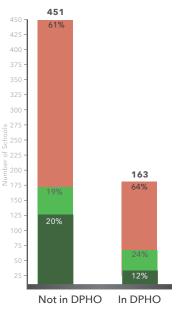
Neighborhood childhood obesity rates reflect a community-level need for NEPs. NEPs are more likely to be in schools within the lowest and highest rates of childhood obesity. The proportion of needs-based NEPs is higher in neighborhoods with 23.1–26.5% obesity rates. This reflects a need to reach more schools in neighborhoods within the three highest childhood obesity rate categories.



- \* Bars are different heights since there are different numbers of schools within each category, each bar represent 100% of schools in that category
- ^ Needs-based NEPs specifically work in schools with high poverty and/or high chronic disease rates (5 NEPs)
- $^{\infty}$  "«Other NEPs" are those that work in any schools, not specifically targeted to schools with high needs (15 NEPs)

## Distribution of Nutrition Education Programs in New York City Schools

### NEP Distribution by DPHO\* Neighborhood



(n=614 schools)

The three DPHO neighborhoods in New York City (South Bronx, Harlem, and Central Brooklyn) represent areas with great need for nutrition and other public health services. Schools in DPHO neighborhoods have a slightly lower proportion of total NEPs but a higher proportion of needs-based NEPs. To meet the high needs of DPHO neighborhoods, more NEPs are needed.

#### Key

**x** number of schools in this category\*

schools with NO NEPs

■ schools with at least one needs-based NEPs^

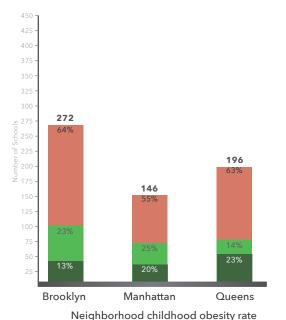
■ schools with only "Other" NEPs<sup>∞</sup>

### DPHO status

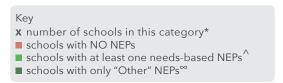
\* DPHO = District Public Health Office (there are DPHOs in neighborhoods that the NYC Department of Health and Mental Hygiene has determined have the highest rates of chronic diseases such as obesity and type 2 diabetes).

### **NEP Distribution by Borough**

(n=614 schools)



There is a need for NEPs in neighborhoods across all boroughs studied. Manhattan has a slightly higher proportion of schools with total NEPs than the other two boroughs.



- \* Bars are different heights since there are different numbers of schools within each category, each bar represent 100% of schools in that category
  ^ Needs-based NEPs specifically work in schools with high poverty and/or high chronic disease rates (5 NEPs)
- $^{\infty}$  """ Other NEPs" are those that work in any schools, not specifically targeted to schools with high needs (15 NEPs)

### Successes

The successes identified in this section come from data from the NEP and school databases as well as from the 20 interviews with community members from schools with active NEPs.

#### NEP successes included:

### NEPs are targeting high-need schools.

It is encouraging that while only 25% of NEPs are needs-based, meaning that their mission and funding dictate that they work in schools with high poverty and/or high chronic disease rates, these NEPs are proportionately reaching more high-needs schools than the rest of the NEPs. Needs-based NEPs were also more likely to be found in:

- schools struggling academically, as evidenced by low attendance rates and low test scores and
- schools that have higher percentages of non-Caucasian students.

### Most NEPs have collected data, or are collecting data on their students.

Seven NEPs, or 35%, said that they collect student outcome data for all of their students, and eight, or 40%, said they collect student outcome data for some students. Although five NEPs said they do not collect data, three have in the past. Collecting data is crucial for influencing future policy decisions and strengthening the case for more investment in NEPs.

### NEPs are helping schools achieve their mission.

When asked if nutrition education was supporting a school's mission, 18 of 22 (82%) of the respondents said "definitely." The four other community members did not provide an answer, and no one responded with "not at all," "not really," or "somewhat."

### School successes included:

### Schools use multiple efforts to strengthen the impact of NEPs.

Although not all of the NEPs identified in this study provide the 10 to 15 hours necessary to increase program-specific knowledge, let alone the 30 to 50 hours needed to instill behavior changes (Connell, Turner, & Mason, 1985), schools are using other measures to increase nutrition education hours. For example, schools teach units within the science and health curricula. Schools also provide three to six hours of nutrition education a year through their own nutrition and food related efforts (Kann et al., 2007). Also, 36% of the schools in this study with NEPs had more than one, indicating that schools do not always rely on

### Successes

a single program. So, while a single NEP might not provide enough hours on its own to impact behavior change, multiple efforts combined increased the likelihood for behavior change. Additionally, Connell and Turner (1985) found that when nutrition education is offered over multiple grades, there is a larger affect than when it is taught in only one grade.

### School with all levels of capacity have NEPs.

There is a common assumption that schools with lower capacity, as measured by the components listed below, are less likely to take on extra programs that could place further demands on already limited capacity. However, in our study, we compared schools with and without NEPs on these capacity factors and did not find any significant differences. Therefore, these school capacity factors did not influence which schools had NEPs.

### School capacity measured by:

- number of students in the school;
- average class size;
- percent yearly teacher turnover rate;
- percent student attendance;
- percent of students identifying as non-Caucasian;
- percent of students who are limited English proficient; and
- average state test scores.

### Schools are using creative ways to address barriers to nutrition education.

School community members reported many of the same barriers to implementing nutrition education programs as reflected in the literature: time; cost/finances; competition with academic priorities; lack of complete compatibility with school culture and practices; the design of the NEPs; lack of staff knowledge/training to be able to implement; and environmental factors, such as parental support. However, schools were able to address these issues by going through the following progression:

- ensuring that all school decision makers understand the benefits of NEPs and how to incorporate nutrition ideas into the school culture;
- being strategic about choosing NEPs that fit their school capacity and needs;
- embedding NEPs within schools' existing routines and culture; and
- legitimizing NEPs' efforts within the school by highlighting and celebrating them.

### Recommendations

### Recommendations for schools:

Principals, teachers, and parents can all play an active role in helping to get NEPs into their schools and then to ensure that the NEPs can be successful at providing meaningful education to students. Many NEPs provide significant resources including curricula, materials, and sometimes staff to teach lessons to students.

- Use this guide to find NEPS, and choose the NEP that fits your school's needs, capacity and mission. Consider which NEPs meet your needs, regarding who teaches the sessions, the program supports offered, the program structure, and academic subjects and nutrition content areas covered.
- Assess the various sources of nutrition education in your school, and evaluate if students are receiving a total of 30-50 hours of year of nutrition education needed to help them make healthy food choices. If not, consider having multiple NEPs at your school.
- From our interviews at schools with multiple NEPs we learned two useful strategies for successfully implementing NEPs: 1)create a team of champions comprised of administrators, teachers, parents, students, food service staff, and other community members; and 2) seek out NEPs that target different grades so that students receive several different NEPs.

#### Recommendations for NEPs:

People who work at NEPs can help to make sure that more schools and students are reached by NEPs. NEPs can also specifically seek schools with high poverty and neighborhoods with high rates of chronic diseases.

- Consider a sliding scale fee structure so that you can serve schools across the socioeconomic spectrum, while diversifying your funding sources.
- Interview key stakeholders (principals, teachers, staff, students) to determine how your NEP can support the school, instead of being seen as something additional. Consider how you meet the needs of the schools you want to work in, regarding who teaches the sessions, the program supports you offer, the program structure, and academic subjects and nutrition content areas you cover.
- Programs should particularly target schools with a high rates of free and reduced lunch eligibility, high neighborhood childhood obesity rates, and/or located within a DPHO neighborhood due to those schools having disproportionately fewer number of NEPs. Consider using multiple factors as a measure of need.

### Recommendations

- Promote the variety of benefits NEPs provide to schools including: contributing to
  the whole child approach, supporting academic success, connecting school to the real
  world, supporting family health, building community, changing eating and health
  outcomes, and contributing to existing practices. Principals particularly value these
  benefits.
- Continually reinforce the benefits of NEPs to all school decision makers and provide suggestions for ways to incorporate food, nutrition, and health into school culture.

### Recommendations for funders and policy makers:

Funders and policy makers can help to expand NEPs in New York City. With more funding toward NEPs and more policy mandates to have nutrition education in schools, more of our students can receive the nutrition education they need to help guide them toward healthful diets that may help them do well in school now and stay healthy into the future.

- City, state and federal government should increase funding for NEPs to match the level of urgency around the obesity epidemic. Possible avenues for funding include USDA's SNAP Nutrition Education and Obesity Prevention Grant program (SNAP-Ed) and the NYC Department of Education's School Wellness Council Grant Program, as well as from the Mayor's Fund to Advance New York City, and funding from Borough Presidents and City Council members.
- Work towards a goal of 80% of New York City schools with NEPS by 2020. This would be doubling the number of schools with NEPs in the next six years.
- Provide more support to NEPs that particularly target schools with over 50% free/reduced priced lunch eligibility, a neighborhood with childhood obesity rates above 16.9%, and/or are located within a DPHO neighborhood due to those schools having higher need for NEPs.
- Ensure that schools in all boroughs have equitable access to NEPs through geographically targeted funding.

# Conclusions and Future Research

### Conclusion:

This report has found that NEPs assist school-driven nutrition education efforts and they do so in a variety of different ways. NEPs implemented in New York City public elementary schools have a range of designs and require varying amounts of effort from schools. They are also found in a range of neighborhoods. While NEPs are in many New York City public elementary schools, there is much room for expansion, particularly among schools in neighborhoods with high rates of childhood obesity and schools with large proportion of low-income students. Additionally, whether or not a school has one or more NEPs is more influenced by need and location factors than by school capacity characteristics.

New York City public elementary schools face the same barriers to implementing nutrition education as reported in the literature, yet they have also been successful in bringing programs in.

### Future research:

One possible future research direction would be to replicate portions of this study in different cities and other locations as well as with other populations. For example, the aspects of the study related to types of NEPs and distribution of NEPs could be conducted in other major cities. Findings would benefit those in other municipalities as well as contribute to a compilation of NEPs characteristics and a greater understanding of the distribution of NEPs in schools.

Further research could also be conducted in New York. First, this study provides evidence to support conducting studies to understand the cumulative effects of having multiple NEPs in schools and communities. There are often overlapping programs in neighborhoods and, as shown in this study, within schools. Second, this study also suggests that further research should be done across NEPs to determine the effectiveness of each program. Measure of success can include eating behaviors, academic achievement, and attitudes towards food, but they can also include reach of program, availability of program to needy populations, and reputation.

Additionally, future research can track the number of NEPs and distribution of NEPs in school over time. This research should be done across all five borough of New York City.

### Introduction

### What Programs are Included in this Guide

Included in this guide is a list of NEPs that are available to work with New York City Pubic Schools. This list began with the programs included in this research study and then was expanded to include more NEPs that the researchers learned about.

#### How to Use this Guide

To help you find the NEPs that best suit your needs, we developed tags of key features of NEPs. See page 25 for a description of the tags. Pages 26 and 27 have a full list of all of the NEPs in this guide. Some organizations have more than one program. Since these programs differ in key features such as appropriate grades and types of activities, each has a separate entry.

We hope this guide can help to bring more NEPs to more schools.

#### **Schools**

If your school has high rates of free/reduced price lunch eligibility, high childhood obesity rates, or is located within a DPHO neighborhood, seek out NEPs that are free or have sliding scale fees.

#### **NEPs**

See what your peers are offering and how you complement or duplicate their work.

### **Tag Descriptions:**



### Arts & Media

The NEP incorporates crafts, fine arts, films, music, theater, and other arts. Some examples include a play on eating healthy, or painting pictures of food.



### Cooking

The program includes preparation of food. Cooking programs may also involve cafeteria workers and teachers in the cooking process.



#### Curriculum

The NEP provides lesson plans and ways to evaluate student work. Curriculum may be free or have a cost, and may or may not come with materials.



### Fieldtrips & Tours

NEPs that provide fieldtrips and tours such as visits to farmer's markets, farms, gardens, and other environmental sites. Some fieldtrips offer pre and post fieldtrip lessons plans to further extend learning.



### **Food Sourcing**

Programs that team up with gardens and farms to supply food and drinks to students. Often the food comes from local providers.



### **Food Tasting**

Programs that provide food for students to taste such foods as fruits, vegetables, whole grains, or foods from different cuisines. This tag also includes when students prepare dishes and then sample the food they made.



### **Gardening & Farming**

Programs that provide students with experiences in a garden or farm. Students get to take part in hands-on activities such as preparing soil, planting seeds, watering plants, weeding, and harvesting food.



### Lessons & Workshops

Programs that offer one or a short series of lessons or workshops. Unlike the "curriculum tag," these lessons or workshops are often taught by NEP staff.



### **Newsletters & Publications**

The NEP provides educational handouts for students, school staff, and families. Newsletters can offer nutrition tips, information about upcoming events, or recipes.



#### Physical Activity

NEPs that offer physical activity offer physical activity often with an exercise and fitness component. These programs also work to make recess more engaging for students.



#### **STEM**

The program's content supports science, technology, engineering, and mathematics. Often STEM programs address appropriate standards for these subject areas.



### **Teacher Education**

Professional development workshops for teachers; often during non-school hours. Some teacher education programs provide credits for educators, materials and other resources.

### **Programs at a Glance**

NY Coalition – Wellness Wakeup Calls	NY Coalition – Food UnEarthed	NY Coalition – Cool School Food	MyPlate!	Jump with Jill	Horticultural Society — Teacher Training	Horticultural Society – Apple Seed	HealthBarn USA	Harlem Seeds	Harlem Grown	Grow to Learn	Groundwork Hudson	GreenMarket – Seed to Plate	GreenMarket – School Tours	FoodPlay Productions	Food Fight	Edible Schoolyard NYC	Cornell Cooperative Extension	CHALK	Bubble Foundation	Brooklyn Kitchen	Adopt-a-Farmbox	Added Value	
			•	•		0	•	•				•				•	•		•	•		•	
		•				0	•		•		•	•	•				•	•		•	•	•	
	•	•				•	•	•	•	•		•	•			•	•		•		•	•	
							•		•					•		•	•	0	•		•		
					•											•					•	•	

### **Programs at a Glance**

Wellness in the Schools	Veggication	The Sylvia Center	The Cooking Room	The Children's Aid Society	SuperKids Nutrition	Studio in a School	Stone Barns Center for Food & Agriculture	Spoons cross America - Take a Taste	Spoons Across America - Food Miles Relay	Spoons Across America - Dinner Party	Spoons Across America - Ag Literacy Week	Solar One	Snug Harbor	Seeds in the Middle	Red Rabbit	Queens Botanical Garden	NY Sun Works – Teacher Training	NY Sun Works – Greenhouse Project	NYCDOE – Garden to Cafe	NYCDOE – Fresh Fruit and Vegetables
•	•	•	•	•		•	•			•		•	•	•	•	•		•	•	
•	•	•	•		•		•	•	•	•	•		•	•	•	•		•	•	

### **Program Listing**

## Added Value: Farm to Classroom

580 Columbia Street Brooklyn, NY 11231 718-288-3455

www.added-value.org

Duration: 26 weeks Grades: 1st grade

Cost: --

#### Tags:











Farm to classroom allows students to participate in weekly farm-based lessons, coupled with weekly cooking lessons. Students work cooperatively to prepare a farm bed, sow seeds, and harvest lettuce all while developing a vocabulary base to discuss and write about their observations on the farm. They also perform scientific experiments to discover the functions of plants. Added Value also provides one-day farm trips for students at the Red Hook Community Farm, and a Seed to Salad program that teaches students about sowing seeds, harvesting, and making salads. By taking part in farm-based activities, students develop a working knowledge of plant biology, plant cycles, and a farmer's work to grow food. Not to mention, an excitement for fruits and vegetables!

### **Adopt-A-Farmbox**

address unknown

farmboxes.org

**Duration:** varies

Grades: K - 12th grade

Cost: --

#### Tags:





The Adopt-A-Farmbox initiative is a program that builds and installs farmboxes made from 100% recycled materials for local schools for the purpose of growing fruits. Farmboxes are fertile ground not only for food, but also as a tool for education, personal growth, and community engagement. They provide everything needed to create and sustain an Adopt-a-Farmbox project: farmboxes, organic soil, organic seeds, consultation on seed placement optimization, soil composition, vegetable & fruit varieties, plan layouts, educational program integration including nutrition & cooking classes; and standard based curriculum for schools.

## **Brooklyn Botanic Garden: Project Green Reach**

1000 Washington Avenue Brooklyn, NY 11225 718-623-7200

www.bbg.org/learn

Duration: 4 months (offered fall and spring)

Grades: K - 8th grade

Cost: \$200 (for two classes and their teachers)

#### Tags:













Project Green Reach (PGR) is an outreach program for K–8 teachers and their classes from Brooklyn's Title I public and non-public schools. PGR provides a curriculum package for the topic of your choice, inquiry-based instruction with a plant for each student, transportation to and from and a guided tour of BBG, as well as teacher training and supplies for a community horticulture project. Teachers choose from the following topics: Life Cycle of a Bulb (fall only), Life Cycle of a Seed (spring only), Kitchen Botany, Desert Environments, and Tropical Rainforests. Teachers of grades 4, 5 and 6 are asked to nominate two students to apply to their full-scholarship, garden and botanical science based Junior Botanist and Plant Investigator summer enrichment program.

## **Brooklyn Kitchen: Classrooms in the Kitchen**

100 Frost Street Brooklyn, NY 11211 718-389-2982

www.thebrooklynkitchen.com

Duration: One day
Grades: 1st - 12th grade

Cost: \$10 per student with possibilities for

waivers

#### Tags:





Classrooms in the Kitchen allow New York City school students to take a fieldtrip to the laboratory kitchen and butcher shop. There, they spend the day learning about food sourcing, meat, and cooking.

## Bubble Foundation: Bubble EATS and MOVES Classes

142 Greene Street, Suite 4N New York, NY 10012 212-203-4956

www.welcometobubble.org

Duration: 2 year partnership

Grades: K - 5th grade

Cost: Free

### Tags:











Bubble EATS exposes children to a new way of relating to food. Its Weekly Classes are taught by volunteer nutrition/wellness professionals and highlight how food is grown and where it comes from. Bubble's Family Style Meals allows for students and faculty to eat together, using mealtime as a learning experience to develop good eating habits and table manners. Finally, Urban Gardening teaches children the basics of agriculture by offering them firsthand knowledge of cooperative work, community, and healthy 'home grown' food choices. Bubble can also bring in physical education with MOVES classes, an activity-based curriculum that exposes students to fitness activities and helps them develop an appreciation for lifelong fitness goals.

## CHALK (Choosing Healthy & Active Lifestyles for Kids)

622 West 168th Street, VC4-412a New York, NY 10032 212-342-0713

www.chalkcenter.org

Duration: 4 year partnership Grades: Pre-K - 8th grade

Cost: Free

#### Tags:













CHALK in schools helps increase awareness of healthy habits among parents/ caregivers, teachers, and students. Its Just Move in-class physical activity program was recognized by Michelle Obama and expanded nationally to over 200 schools in 42 states. This activity break program assists schools with achieving the 120/ minute exercise per week mandate. CHALK develops a school-driven agenda that gradually transfers ownership to school champions over the 4 year partnership. Examples of its work include leading School Wellness Councils, training teachers on its nutrition curriculum and exercise cards, and distributing monthly education materials around its Habit of the Month.

### **Cornell Cooperative Extension: EFNEP / ESNY** Workshops

40 East 34th St. Suite 606 New York, NY 10016 phone

212-340-2922

Duration: varies by program Grades: Pre-K - 12th grade

Cost: free to their targeted audience













Cornell University Cooperative Extension Nutrition & Health Program helps New York City residents of all ages make informed decisions about food, nutrition and health, managing resources, parenting, and health care. We work closely with our partners to provide education to targeted adults, children and families. Workshops are interactive, hands-on, and delivered by trained paraprofessionals. Many of our educators are bilingual (English/Spanish, and English/French-Creole). Each session participants engage in learner-centered dialogue based education. Visuals and hands-on activities make teaching come alive. Participants prepare, cook and taste foods, and sessions always target the needs of the group.

### **Edible Schoolyard NYC**

55 Washington Street, Suite 257 Brooklyn, NY 11201 347-565-0100

www.esynyc.org

Duration: 36 lessons a year Grades: Pre-K - 5th grade

Cost: --

#### Tags:













Edible Schoolyard NYC teaches New York City public school children to grow, prepare and love healthy food, and in the process, understand the impact of their food choices on themselves, their communities, and the planet. ESYNYC has two showcase schools--PS 216 in Brooklyn and PS/MS 7 in Manhattan-where they are building garden and kitchen classrooms and teaching every child in the school three times per month. Showcase schools are also demonstration sites where educators attend free professional development workshops to learn teaching techniques for the kitchen and garden, and to receive ESYNYC's interdisciplinary, Common Core Standards-based, pre-5 curriculum.

### FAN4Kids

154 Douglass Street Brooklyn, NY 11217 201-349-7955

www.fan4kids.org

Duration: 32 weeks

Grades: Pre-K - 4th grade

Cost: Varies because of subsidies

#### Tags:







Founded in 2004, FAN4Kids provides grade-specific, comprehensive nutrition and fitness education in urban public schools, grades pre-K to 4th. The program spans the entire school year and uses a teaching model that is hands-on and engages students as active participants. F4K instructors essentially become part of school staff, teaching 5 classes per day, plus supervising recess. The full program's multi-pronged approach combines classroom instruction, structured recess, school "buy-in," parent involvement and a mobilized community. Its goal is to provide children with tools to help them make better decisions about the food they eat and their physical activity levels.

### **Food Bank For New York City: Cookshop™**

39 Broadway, 10th Floor New York, NY 10006 212-566-7855

www.foodbanknyc.org

Duration: 6 months; 6-18 lessons (varies), 45-90

minutes in length (varies) Grades: K - 12th grade

Cost: Free

















Cookshop™, the federally funded nutrition education program of Food Bank For New York City, provides the knowledge and tools to adopt and enjoy a nutritious diet and active lifestyle on a limited budget. Through interactive, hands-on lessons in the classroom, Cookshop™ fosters enthusiasm and appreciation for good nutrition and physical activity. With distinct curricula for public schools and after-school programs, Cookshop™ reaches over 40,000 children, teens and adults in more than 1,800 classrooms annually. Participants learn about eating foods from the five food groups, what goes into a nutritious diet and how to transform whole foods such as carrots and apples into simple, tasty, affordable meals and snacks.

### **Food Fight: Elementary Training**

21 West 46th Street, Suite 1205 New York, NY 10036 646-568-1275

www.foodfight.org

Duration: 1 month - 1 year Grades: K - 12th grade

Cost: Free

#### Tags:







Founded by two NYC public school teachers, FoodFight uses schools as a platform to arm teachers, parents and students with the tools and knowledge they need to make healthier choices and become role models and agents of change for their schools and families. Through a series of hands-on workshops for teachers, parents and students, FoodFight engages the community in the national conversation about food and shifting the culture of health and wellness at their schools. It addresses critical questions of food politics, consumership and sustainability. FoodFight believes education is key to combating America's health crisis and that schools should be at the forefront of a campaign to transform our eating habits and lead us towards a more healthful and sustainable future.

### **FoodPlay Productions: Live Theater and Follow-up Materials**

1 Sunset Avenue Hatfield, MA 01038 413-247-5400

www.foodplay.com

Duration: One session, 50 minutes

Grades: K - 5th grade

Cost: \$1495

#### Tags:









Since 1982, FoodPlay Productions has been using the power of live theater and interactive media to turn kids on to healthy eating and exercise habits. Reaching over 4,000,000 schoolchildren across the country, FOODPLAY's live nutrition education theater shows and dynamic follow-up activity kits have been shown to dramatically improve children's nutrition and health knowledge, attitudes, and behaviors, according to USDA-sponsored evaluations. Created by nutritionist Barbara Storper, MS, RD, under original sponsorship by the USDA and CDC, FOODPLAY programs have received a host of awards including an Emmy Award for "Best Children and Youth TV Special" when made for TV.

### **Greenmarket: School Tours at Greenmarkets**

51 Chambers Street, Room 1231 New York, NY10007 212-788-7900

www.grownyc.org/markettour

Duration: 45-60 minutes Grades: K - 12th grade Cost: \$40 per tour





School Tours at Greenmarkets introduce the concepts of seasonality, local food and sustainable agriculture to over 6,000 students each year. Tour curricula are grade-level appropriate and involve an exploratory walk-through of the market, fun seasonal tastings of Greenmarket farmer products, and take-home activities and recipes. The interactive outdoor tours allow children to discover the diverse, unique varieties and delicious flavors of farm fresh food and explore and interact with the lively community created by farmers' markets. Tours are available at any weekday Greenmarket location from April through December.

### **Greenmarket: Seed to Plate Curriculum**

51 Chambers Street, Room 1231 New York, NY 10007 212-788-7900

www.grownyc.org/greenmarket/education/ seedtoplate

Duration: 5-6 weeks Grades: 5th - 6th grade

Cost: Free; offered at 3-5 selected schools each

fall and spring semester

### Tags:











Seed to Plate utilizes fun, interactive learning experiences while introducing students to why healthful, mindful eating is important not only for their personal health, but for the health of the environment and community that surrounds them. The curriculum is made up of lessons about agriculture, nutrition, farmers' markets, and cooking. The lessons include field trips to a Greenmarket and a local farm, guest visits inside the classroom from farmers and chefs, film viewings, sensory tastings and hands-on preparation of delicious, diverse, and healthy local food.

### **Groundwork Hudson Valley:** The Science Barge

99 Dock Street Yonkers, NY 10701 914-375-2151

www.groundworkhv.org

Duration: 1-3 hours

Grades: 1st - 12th grade; up to 35 students Cost: \$175 to \$450 depending on the length of

the program

#### Tags:



The Science Barge is a floating farm that showcases sustainable urban and hydroponic growing techniques. Educational programs include a tour of the greenhouse, composting system, and solar/wind energy generating systems. The Science Barge also offers myriad onboard activities ranging from a Botany program to a carbon footprint program called "How Many Miles on Your Plate?" Its youth farm team has been trained in the barge and harvests/sells our produce at our Saturday Farmers' Market.

## **Grow to Learn: The Citywide School Gardens Initiative**

51 Chambers Street, Room 228 New York, NY 10007 212-788-7918

www.growtolearn.org

Duration: N/A

Grades: K - 12th grade

Cost: Free; schools must register to be eligible for

materials and grants

#### Tags



Across the city, Grow to Learn is working hard to help gardens bloom at each of the 1,700 public schools, so all children have the chance to dig in, get hands-on learning opportunities, and build positive attitudes towards healthy food and the environment. Together with the Mayor's Fund to Advance NYC, GrowNYC, the NYC Department of Education, and NYC Parks' GreenThumb Division, Grow to Learn ensures that NYC schools have access to garden mini-grants, materials, and support needed to start, maintain and expand successful garden programs.

### **Harlem Grown**

118 West 134th Street New York, NY 10030 917-797-9682

www.harlemgrown.org

Duration: Varies; mentors work with students every day; classes work in the garden during the growing season for 40-minute sessions

Grades: Pre-K - 5th grade

Cost: Free

#### Tags:







Harlem Grown is a non-profit organization that partners with public elementary schools in Harlem to teach children healthy lifestyles through the act of gardening. It provides in-school mentors to lead sustainability programs at each school and develop social skills and positive behaviors. Harlem Grown also works with classes of students in the garden leading the planting, cultivating, and harvesting of the school garden. It also provides community education on health and nutrition through workshops and garden tours.

### Harlem Seeds: Healthy In My Neighborhood

118 West 139th Street, Suite 3W New York, NY 10030 917-731-4584

www.harlemseeds.org

Duration: --

Grades: Ages 3-21 years

Cost: --

#### Tags:





Gardening education participants become better connected with the earth, seeds, plants, and food, and become better aware of the lifecycle of plants and people. Participants are also exposed to the entrepreneurial opportunities in growing food, helping the environment, and building strong communities. "Seed to Table" includes learning how to prepare healthy, tasty dishes. The focus is teaching youth and families about foods that nourish the body. Using fresh fruits and vegetables along with various ingredients in order to become better educated, equipped, empowered and engaged on the foods we eat and should have access to in our communities.

### HealthBarn USA

700 Lawlins Road Wyckoff, NJ 07481 201-891-2066

www.healthbarnusa.com

**Duration:** Varies Grades: K - 8th grade

Cost: Varies











HealthBarn USA offers hands-on, fun and educational programs designed as assemblies for schools and as workshops, camp, and field trips on the farm (40 minutes from NYC). Programs cover a variety of topics such as local and seasonal eating, organic farming, composting, nutrition education, and natural beauty. Students are encouraged to try healthy foods, participate in family meals, and be active. On the farm, kids also have hands-on experience in farming and cooking with fresh produce, learn about where food comes from, and why fresh food is so good for our body.

### The Horticultural Society of **New York: Apple Seed**

148 West 37th Street, 13th Floor New York, NY 10018 212-757-0915 x 106

www.thehort.org

Duration: 10-30 weeks Grades: K - 6th grade

Cost: Varies











This project attempts to cultivate a profound appreciation and understanding for the 'controversial greens.' It digs deeper into exactly how vegetables nourish our bodies and students will explore vegetables from the ground to their plates. They will plant vegetable seeds, take home starter tomatoes for their fire escapes, investigate plant structure, define botanical functions, conduct scientific experiments and finally produce six tasty, unique veggie dishes. Collectively, these activities promote a symbiosis between healthy plants and healthy people. Each plant part theme will include a hands-on science activity, hands-on horticulture or gardening activity, a wholesome cooking activity and reading of a relevant story.

### The Horticultural Society of **New York: Teacher Training**

148 West 37th Street, 13th Floor New York, NY 10018 212-757-0915 x 106

www.thehort.ora

Duration: 36 hours

Grades: 5th - 8th grade teachers

Cost: \$250 + \$125 ASPDP Fee for 3 credits







This course provides teachers with hands-on activities and assignments to engage their students in sensory, experiential and kinesthetic methods of learning. It connects science standards with real world applications whether in a school garden or classroom window box. Participants will learn about the growing season, purchasing cheap seedlings and making vegetable projects financially sustainable. Teachers will plant vegetable seeds, transplant seedlings, investigate plant structure, define botanical functions, conduct scientific experiments and produce tasty, unique veggie dishes every day. Additionally, activities that involve battling obesity, promoting physical activity and consuming fresh veggies will be investigated.

### **Jump with Jill**

1-800-531-0760

www.jumpwithjill.com

**Duration:** One hour sessions

Grades: K - 6th grade

Cost: Varies

#### Tags:







content that has launched the Nutrition Action News Team, Going Gold for

Michelle Obama, and the Jump with Jill Film Festival. Jump with Jill uses the



Jump with Jill is a multimedia health program that makes nutrition rock. Jump with Jill is currently formatted as a rock & roll nutrition concert for schools, workshops, community events, and conferences; audio CDs; and an in-school curriculum called the Nutrition Rock Invasion complete with a cooking show and danceable music videos. It's also a health and wellness platform for original

same tools normally used to sell junk food and keep kids sedentary to get kids engaged, moving, and learning about healthy habits.

## **MYPLATE!** The New Food Guide Musical Program

196 East 75th street, suite 18A New York, NY 10021 212-861-5648

http://butleroff.com/Home.html

Duration: 30 sessions – weeks Grades: 3rd, 4th, and 5th graders

Cost: \$4,000

#### Tags:







"MY PLATE! The New Food Guide Musical Program" is a creative nutrition education/physical fitness initiative promoting not only healthy eating habits, but physical activity as an important component of a healthy lifestyle. This Program received the "Certificate of Achievement" from the NYS Department of Health and has been praised in "The New York Times." The program consists of a series of nutrition education classes in conjunction with rehearsals/physical exercise and a performance of an original musical, "MYPLATE! The New Food Guide Musical," performed by professional Broadway actors and participating students to assemblies for 1st to 5th graders, teachers, administrators and parents.

## NY Coalition for Healthy School Food: Cool School Food

PO Box 737 Mamaroneck, NY 10543 914-630-0199 or 917-232-8323

www.healthyschoolfood.org

Duration: Throughout the school year

Grades: K - 12th grade

Cost: Free, but the optional Family Dinner Nights, while free to the families, cost the school

\$10 per participant

#### Tags:







Cool School Food in New York City is a partnership between the New York Coalition for Healthy School Food and the NYC DOE Office of SchoolFood to implement plant-based, international bean and tofu based recipes in school cafeterias. Its role is to act as the liaison between the school and the Office of SchoolFood to bring vegetarian or alternate (less processed, with some plant-based options) menus to schools.

### NY Coalition for Healthy School Food: Food UnEarthed Curriculum

PO Box 737 Mamaroneck, NY 10543 914-630-0199 or 917-232-8323

www.healthyschoolfood.org

Duration: Throughout the school year

Grades: 3rd - 5th grade

Cost: \$15,000 for 4 classrooms each week, snack

included

#### Tags:







Food UnEarthed is a plant-based curriculum with a detective theme that teaches critical thinking skills to "Uncover the Truth About Food." In addition to teaching "big picture" nutrition, it teaches label reading, media literacy, food politics, food and the environment, and more. Each lesson plan includes a snack component.

## NY Coalition for Healthy School Food: Wellness Wakeup Call

PO Box 737 Mamaroneck, NY 10543 914-630-0199 or 917-232-8323

www.healthyschoolfood.org

Duration: Once daily throughout the school year; less than 30 seconds

Grades: K - 5th grade and 6th-12th grade

versions

Cost: Free to schools in NY state

#### Tags:





Wellness Wakeup Call is NY Coalition for Healthy School Food's signature nutrition education program that is easy to use. The program includes 30 months of nutrition education messages with a different topic each month. It is available in K-5 and 6-12 versions, is written by Registered Dietitians, and it helps schools meet the nutrition education guidelines of the Local Wellness Policies. Wellness Wakeup Calls take 30 seconds or less per day to implement at no additional burden to teachers except to hand out the take home messages at the end of each month, or to read each day if their school does not have a PA system.

## **NYCDOE\*** SchoolFood: Fresh Fruit and Vegetables

44-36 Vernon Boulevard Long Island City, NY 11101 718-707-4300

www.opt-osfns.org/schoolfood/public1/default.aspx

Duration: 5 months Grades: Pre-K - 5th grade

Cost: Free

#### Tags:



Elementary school students in 51 schools around the state will be getting fresh fruit and vegetables for snacks during their school day under a program administered by the New York State Education Department. The Fresh Fruit and Vegetable Program (FFVP) is designed to provide fresh fruit and vegetables during the school day, free of charge, to all enrolled school children in participating schools. The funding is to be used to buy, prepare and serve fresh fruits and vegetables each school day. The food items must be fresh, not canned, frozen or mixed with other foods. They must also be served as a snack during the school day, rather than as part of the regular meal service. With the exception of bananas, all items must be domestic.

### NYCDOE\* SchoolFood: Garden to Café

44-36 Vernon Boulevard Long Island City, NY 11101 718-707-4300

www.opt-osfns.org/schoolfood/public1/default.aspx

Duration: 6 months
Grades: Pre-K - 5th grade

Cost: Free

#### Tags:







Garden to Cafe is a program that connects school gardening and school lunch through seasonal harvest events and educational activities. Garden to Café program objectives include: increase students' consumption of fresh vegetables and knowledge of healthful foods, farming and the local food system, increase awareness of the benefits of school gardens, demonstrate the learning opportunity of integrating school gardening with school lunch, and build awareness of the larger local food initiatives underway at SchoolFood.

### NY Sun Works: The Greenhouse Project

307 Seventh Avenue, Suite 1201 New York, NY 10001 212-757-7560

www.nysunworks.org

Duration: 80 lessons a year Grades: K - 8th grade

Cost: Project budgets for an in-classroom system and full-scale greenhouse system range from \$10K-\$30K and \$50K-\$100K, respectively.

#### Tags:







Greenhouse Project science labs use hydroponic farming technology and provide hands-on, project-based environmental science education for students in urban schools. The science content is conveyed via urban farming and addresses biology, chemistry, physics, earth sciences and the living environment. Greenhouse Project K-5 curriculum is comprised of 80 lesson plans per grade, divided into four units to cover one year of science, and the NYSW curricula covers all NY State Science Standards and Common Core Standards. All lessons connect to The Greenhouse Project systems through experimentation and practice. For 6th-8th grades, NYSW has created challenge-based modules: intensive, short-term interdisciplinary courses developed around real-world challenges.

## NY Sun Works: Teacher Training

307 Seventh Avenue, Suite 1201 New York, NY 10001 212-757-7560

www.nysunworks.org

Duration: 36 hours

Grades: K - 8th grade teachers (open to high

school teachers as well)

Cost: \$125

#### Tags:





Taught in The Sun Works Center, a sustainable, rooftop, hydroponic, urban farm/ classroom, this course allows teachers to learn more about current environmental concerns through technology, discussion and engaging hands-on projects. This course has been approved by the DOE ASPDP and may be counted for three "P" credits. In this course, teachers will learn effective ways to motivate and maintain the interest of all students. Teachers will design lesson plans that can be applied immediately within their classrooms as well as design an accompanying assessment rubric to ensure students are kept accountable for their work. As an integral part of the course, teachers will implement at least one project-based lesson into their own classrooms and record assessments.

## **Queens Botanical Garden: School Workshops**

43-50 Main Street Flushing, NY 11355 718-886-3800 x 230

www.queensbotanical.org

Duration: One half day Grades: K - 8th grade

Cost: Prices start at \$125 per day or class

#### Tags:









Queens Botanical Garden's Environmental Education Workshops are a great way to introduce nature into curricula and many classes provide Common Core support. Its hands-on workshops for elementary students include classes on varying topics such as: worms, biomes, insects (including honeybees), plants and First Americans, plants we eat, and trees. For middle school, there are several workshops covering topics such as energy consumption, the water cycle, pollination and ecology. The Garden also offers tours both of the Garden's grounds and of the Garden's LEED® Platinum certified Visitor building—a site that features the latest in green technology.

## Red Rabbit: Educational Programs

1751 Park Avenue New York, NY 10035 866-697-3372

www.myredrabbit.com

Duration: 4, 8, or 12-lab packages; classes are 45-60 minutes in duration.

Grades: Pre-K - 12th grade

Cost: Range from \$14-\$25 per student per lab, dependent upon lab type and package

#### Tags:













Red Rabbit is a NYC-based healthy school meal provider to the NY metro area providing kid-approved, farm fresh, made-from-scratch and locally sourced food. It also offers an array of educational programs that help educators, parents and kids understand nutrition, gardening, cooking, and healthy eating. Red Rabbit's in-school, hands-on educational labs get students working with fruits and vegetables in the garden or the kitchen to help them understand where food comes from and encourage healthy choices at school and at home. Cooking labs encourage kids to create yummy and nutritious dishes with a focus on whole foods, while gardening labs teach the importance of sustainability and growing vegetables for health, livelihood, and learning.

## Seeds in the Middle: Workshops

PO Box 310752 Brooklyn, NY 11231 917-697-3745

www.seedsinthemiddle.org

Duration: 12-week sessions per component;

other options available

Grades: Pre-K - 5th grade

Cost: 12 week program: \$12,000; other options

and consulting available

#### Tags:

















Seeds in the Middle teaches students and schools how to create sustainable healthy environments by integrating lessons into curriculum. Kids grow, cook, and market food, compost, recycle, beautify surroundings and become environmental stewards. Students learn to run Hip2B Healthy Markets, selling nutritional snacks inexpensively and luring peers from junk food. Chefs train adults and children in hands-on classes to prepare healthy, low-fat delectable dishes during the day and at Chef Night dinner parties. Gardening is another component and both indoor and outdoor edible gardens help children learn where food comes from, while also improving nutritional knowledge. Fitness is also offered so kids are active.

### Snug Harbor Cultural Center/ Botanical Garden: Education Programs

1000 Richmond Terrace, Building P Staten Island, NY 10301 718-425-3511

www.snug-harbor.org

Duration: One day or multi-session

Grades: K - 8th grade

Cost: \$200 per group. Discounts for Title 1

schools.

#### Tags:







Multiple programs are offered at the Snug Harbor Cultural Center & Botanical Garden with a focus on sustainable farming and growing food. There are also science and nature programs that introduce the concepts of biodiversity and interdependence within a habitat. Also available onsite is the "NYC Compost Project on Staten Island" where students can learn about NYC composting programs, as well as some basic information on the science and mechanics of indoor and outdoor composting.

### Solar One: Green Design Labs

37 West 26th Street, Suite 209 New York, NY 10010 212-505-6050

www.thegreendesignlab.org

Duration: 5 units, 10 lessons each; semester or

year-long.

Grades: K - 5th grade

Cost: Free; the program selects a handful of schools each year; applications accepted in spring

#### Tags:





The Green Design Lab™ is an in-depth curriculum that uses the school as a learning laboratory and tool for environmental change. Divided into five units - Energy, Air, Water, Materials and Food - the curriculum includes hands-on activities and readers for students, and detailed instructional guides for teachers. The Green Design Lab also offers ideas and guidance for implementing effective school-wide sustainability initiatives such as student-led awareness campaigns around topics like food and energy, recycling, school gardens, and zero-waste lunches, among others. School sustainability projects are an engaging and dynamic way for students and teachers to put classroom knowledge into action and involve the entire school community in bringing sustainability to the school.

## **Spoons Across America: Agriculture Literacy Week**

349 Fifth Avenue New York, NY 10016 646-738-8950

www.spoonsacrossamerica.org

Duration: One day, 45 minutes

Grades: 2nd grade

Cost: Free

#### Tags:





Each spring, 2nd graders learn about New York state agriculture through the reading of an agriculture-themed storybook and Common Core-based curriculum. Topics explored include what kinds of food are grown and produced in the state, what areas these foods come from and the people who are involved in growing and producing them. The program, in conjunction with Cornell University's New York Agriculture in the Classroom, fosters awareness, understanding, and appreciation of agriculture and the food and fiber system. Agricultural literacy is the basic knowledge that all citizens need to make informed decisions impacting careers, health, and public policy. The program includes one lesson with optional extensions.

### **Spoons Across America: Dinner Party Project**

349 Fifth Avenue New York, NY 10016 646-738-8950

www.spoonsacrossamerica.org

Duration: 5-8 lessons, 45 min each, plus a Din-

ner Party

Grades: 5th - 8th grade

Cost: Varies









The Dinner Party Project is a dynamic family-focused food education program involving children (5th-8th graders) in the entire process of producing a dinner party for their families at a school or community center. The Dinner Party Project offers a wonderful opportunity for children to experience the fun and excitement of planning, preparing, serving and enjoying a meal with their parents and friends. Students are taught about nutrition, food safety, meal planning, table setting, etiquette, and cooking. This powerful experience of planning a dinner party also deepens their understanding of the value of community, family, teamwork, and sharing, while building self-esteem and having fun.

### **Spoons Across America: Food Miles Relay**

349 Fifth Avenue New York, NY 10016 646-738-8950

www.spoonsacrossamerica.org

Duration: One day, 45 minutes

Grades: 4th grade

Cost: Free

#### Tags:





Spoons Food Miles Relay teaches students about freshness, energy use, and about environmental and other benefits of buying and eating locally grown foods. This exciting, fun, hands-on, physically active program gives students the opportunity to learn: what "Food Miles" are and how far food items travel from their origin, that it often takes more energy for food to travel from far away than it does to travel from more local sources, to pay more attention to where their food comes from, that locally grown foods are freshest, and how the quality and taste of food can be affected by the distance it traveled. The program includes one lesson with optional extensions.

### **Spoons Across America: Take a Taste with Spoons**

349 Fifth Avenue New York, NY 10016 646-738-8950

www.spoonsacrossamerica.org

Duration: One day, 45 minutes

Grades: 3rd grade

Cost: Free

#### Tags:





Take a Taste with Spoons provides students the opportunity to learn about the elements of taste, sample foods, and take a recipe home to share with their families. Through discussion, observation and tasting, students compare and contrast characteristics of foods and identify taste nuances. Vocabulary is expanded as students describe their sensory experiences and share their findings. Activities celebrate fresh, local, and seasonal food, and encourage direct and long lasting connections with locally grown produce and its producers while eating healthy, tasty food. The program includes one lesson with optional extensions.

### **Stone Barns Center for Food** & Agriculture: **Education Workshops**

630 Bedford Road Pocantico Hills, NY 10591 914-366-6200

www.stonebarnscenter.org

Duration: One day Grades: K - 12th grade

Cost: \$310-\$440











Stone Barns Center offers field trips from September through June. School programs are designed to integrate a farm tour, hands-on learning in the form of a seasonal farm chore, and/or an activity that encourages students to develop literacy skills related to ecological community-based food production. Field trips are conducted in a living classroom – its working farm. The farm can be used to teach concepts ranging from life cycles to biodiversity to seed breeding, and its educators offer developmentally appropriate and engaging farm experiences that enrich classroom learning. The Center also offers a cooking program for 3rd - 5th graders and middle and high-school students that integrates a tour of the farm, cooking with seasonal ingredients, and sharing a meal together.

### Studio in a School: **Art and Healthy Living**

75 West End Avenue New York, NY 10023 212-459-1455

www.studioinaschool.org

Duration: 6 Workshops, 6 Nutrition Lessons, 1

Exhibition/Celebration; 7 weeks

Grades: 3rd - 5th grade Cost: Free for Title I schools

#### Tags:









The Art and Healthy Living program integrates visual arts experiences with nutrition instruction to help children lead healthier lives. By linking arts and nutrition, this program provides children with the motivation and tools needed to make informed eating decisions and initiate positive change. The program curriculum was written by Studio in a School in collaboration with Teachers College, Columbia University and serves four classes for six weeks of instruction, concluding with a final celebration and exhibition of art and healthy eating. Lessons about plants and nutrition link with Science units in grades 4 and 5.

### **SuperKids Nutrition: Eating Healthy & Making Good Nutrition Fun**

626-818-6299

www.superkidsnutrition.com

Duration: One session, 50 minutes Grades: Pre-K - 5th grade teachers Cost: \$200-400, varies on location

#### Tags:



Eating Healthy and Making Good Nutrition Fun is a program for schools to find out how offering healthy foods does not need to compromise your budget and can improve the overall health and well being of your young students. Here you learn about what foods are good for the body, get guidance on snacks provided in the school, and ideas on how to instill positive eating habits for life. SuperKids also provides programs like Colors of the Rainbow, which is an interactive class that teaches children about healthy eating, and Eat the Right Foods, which uses hands-on activities to help children decipher food information.

### The Children's Aid Society: **Go! Kids Food and Fitness Program**

150 East 45th Street New York, NY 10017 212-503-6855

www.childrensaidsociety.org/gohealthy/ gokids

Duration: 24 weeks, 30 minutes to 1 hour per

week; implementation is flexible

Grades: Pre-K

Cost: \$299 per curriculum binder











Go! Kids instills healthy eating and active living practices in young children through daily classroom activities, including stories, songs, arts projects, movement and cooking. The curriculum is designed to be implemented by the classroom teacher and it integrates seamlessly into Head Start and other early childhood curricula. The curriculum also includes weekly home connection activities and monthly (bilingual) parent newsletters that help caregivers learn about and reinforce healthy practices at home. CAS also offers after-school cooking, nutrition education, gardening and food justice programs for youth in elementary and middle schools in our sites Harlem, Washington Heights and the South Bronx.

### **The Cooking Room**

490 Hudson Street New York, NY 10014 917-612-9075

www.thecookingroom.org

Duration: 16 lessons Grades: K - 5th grade

Cost: \$20 per student for ingredients for 8 les-

sons, instructor fees vary

#### Tags:







The Cooking Room is an elementary school program whose goal is to promote food literacy to kindergarten through 5th grade students. It currently operates through a dedicated kitchen classroom at PS3 in New York City. The program is the first of its kind: lessons take place during the school day, so students learn how to work with fresh ingredients to prepare healthy food as part of their daily field of study. Teachers, professional chefs, and chef-instructors come together in our food/science/nutrition lab to educate kids with grade-appropriate food lessons that incorporate science, math, reading, and nutrition. Its goal is to organically integrate food education into the curriculum standards of the school, and to serve as a model for other schools.

### The Sylvia Center: **Cooking Programs**

304 Hudson Street New York, NY 10013 212-337-6097

www.sylviacenter.org

Duration: 6 weeks

Grades: 2nd - 12th grade

Cost: negotiable







The Sylvia Center (TSC) directly addresses issues of diet and health by inspiring young people to discover good nutrition through thoughtful, direct experiences with seasonal fruits and vegetables. Through these programs, participants come to understand what food is, how it is grown, and, perhaps most importantly, that they themselves can choose to make good food for their own bodies. TCS invites students to try new vegetables, come to trust unfamiliar foods, and learn to prepare simple, delicious, affordable meals. Students learn basic cooking techniques (chopping, grating, whisking, kneading, rolling) as well as skills essential for any good cook: kitchen safety, flavor profiles and creative combining, planning and strategizing, and teamwork.

### **Veggiecation**

PO Box 5121 Ridgewood, NJ 07451-5121 201-773-4533

www.veggiecation.com

Duration: One time special event, 4-8 sessions for a short series, 10-15 sessions for a long series

Grades: K - 7th grade

Cost: \$90-\$125 (+ the cost of food) depending on

if it's a one-time class or multi-series class

#### Tags:









Veggiecation is an evidence-based culinary nutrition education program that introduces young children to the delicious and nutritious world of vegetables. The mission of Veggiecation is to promote and educate communities on the health benefits of vegetables and how to prepare them in simple, unique, affordable, and most importantly, delicious ways. It offers a variety of tools to incorporate vegetable education into your every day life from healthy kids cooking classes and family workshops to educational posters and family recipe books. Veggiecation classes are taught by certified Veggiecator Educators across the country.

### **Wellness in the Schools**

PO Box 250832 New York, NY 10025 212-724-2130

www.wellnessintheschools.org

Duration: 9 months
Grades: K - 5th grade

Cost: Varies based on what the school can afford

#### Tags:











Wellness in the Schools (WITS) inspires healthy eating, environmental awareness and fitness as a way of life for kids in public schools. Through meaningful public/private partnerships with school leadership, teachers, chefs, coaches, parents and kids, WITS develops and implements programs that provide healthy foods, healthy environments and opportunities for regular play to help kids learn and grow.

## Bibliography

Connell, D. B., Turner, R. R., & Mason, E. F. (1985). Summary of findings of the School Health Education Evaluation: health promotion effectiveness, implementation, and costs. *Journal of School Health*, 55(8), 316-321.

Connell, D. B. & Turner, R. R. (1985). The Impact of Instructional Experience and the Effects of Cumulative Instruction. *Journal of School Health*, 55(8), 324-331.

Kann, L., Brener, N. D., & Wechsler, H. (2007). Overview and summary: School Health Policies and Programs Study 2006. *Journal of School Health*, 77(8), 385-397.

Liquori, T., Koch, P. D., Contento, I. R., & Castle, J. (1998). The Cookshop Program: Outcome evaluation of a nutrition education program linking lunchroom food experiences with classroom cooking experiences. *Journal of Nutrition Education*, 30(5), 302-313.

Pucher, K. K., Boot, N. M. W. M, De Vries, N. K. (2012) School Health Promotion Interventions Targeting Physical Activity and Nutrition can Improve Academic Performance in Primary- and Middle School Children. *Health Education*, 55(5), 372–391.

Celebuski, C. & Farris, E. (2000) U.S. Department of Education, National Center for Education Statistics. *Nutrition Education in Public Elementary School Classrooms*, NCES 2000-040, Shelley Burns, project officer. Washington, DC.

