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EDUCATION
AND SUSTAINABILITY

LEARN IT | GROW IT | EAT IT

Sustainability Through Healthy Eating

David Saphire and Lenny Librizzi

High School students in five Bronx, New York City High Schools are talking food. Small groups of students visit the corner store and survey the drink choices; others demonstrate to their classmates how much sugar is in a popular soft drink. Classes visit the Jacqueline Denise Davis Community Garden two blocks away to pull weeds, plant seeds and see earthworms, ladybugs and birds in action.

What is going on here? The Learn it, Grow it, Eat it project is the catalyst behind all this. Why engage high school students in these activities?

Food: Abundance and Disparity

First time visitors to New York City might easily think that they have landed in food heaven. With nearly 20,000 restaurants¹ and over 1,000 mid- to large-sized grocery stores and supermarkets² that cater to dozens of ethnicities, the city is teeming with a fantastic variety of fresh and prepared foods available 24/7. However, this bounty is not spread

evenly throughout the city. Termed the "grocery gap" by some, many low-income neighborhoods have only limited access to fresh, healthy foods. Lacking decent sized supermarkets, these neighborhoods tend to be filled with fast-food restaurants and small grocers that often don't offer such basics as fresh fruits and vegetables, low-fat milk, and whole wheat bread.

At the same time, underserved communities suffer a disproportionately high number of health problems that can be linked to unhealthy eating. In low-income neighborhoods throughout the city, residents are more likely to die from diabetes and other obesity-related problems such as heart disease and stroke.³ According to the New York City

"The most interesting classes are when we sampled organically or locally grown fruits. The fruits tasted different from the fruits that I normally eat, and it was through these classes that I finally learned why."

— MELCY, 12TH GRADE
HIGH SCHOOL FOR VIOLIN AND DANCE



Students at Bronx International High School teach their classmates about the health impacts of too much sugar. Left: Students at Bronx Regional High School prepare vegetable beds for winter.



Students at Bronx Regional High School prepare a fresh green salad.



Students at Satellite Academy plant wheat and rye seeds.

| "I learned that the environment is us and we should take care of it to survive."

— KERNETA, 12TH GRADE, HIGH SCHOOL FOR VIOLIN AND DANCE

Department of Health, one in eight New Yorkers is diagnosed with diabetes; 90 percent of these cases are type 2 or adult onset diabetes that can be linked in part to poor eating habits.⁴ Perhaps most frightening are the increases in childhood/teen diabetes and obesity. Almost 25 percent of all New York City elementary school students are obese, compared with a national average of 15 percent.⁵ In high schools throughout New York State, the percentage of students who are overweight or are at risk of becoming overweight is nearly 30 percent.⁶ The New York City health community is in agreement that solutions to these problems require a multi-faceted approach that includes improving food access and nutrition education.

Improving the Life of all New Yorkers

Since its inception in 1970, the Council on the Environment of New York City (CENYC) has focused on improving the quality of life for all New Yorkers.

- The 54 weekly *Greenmarket farmers markets* connect small local farmers directly to city residents in 40 neighborhoods in all five boroughs, providing them with fresh fruit and vegetables.
- The *Greening and Open Space Program* empowers people in neighborhoods throughout the city to create, manage, and sustain community gardens and park/playgrounds.

- The intermediate and high school based *Environmental Education* program engages young people in environmental and health related projects.

In 2006, CENYC joined these three long-standing programs to create "Learn it, Grow it, Eat it," an innovative food/health initiative being piloted at five public high schools in the Morrisania section of the South Bronx. The goal of the project is to encourage the 200 participating high school students to take control of their health through nutrition education and improving food access in their schools and community.

How it Works

Learn it, Grow it, Eat it has in-class and in the garden components. Students learn about healthy eating, where their food comes from, and sample locally grown and/or organic food. They also learn to tend soil and grow vegetables.

In the Classroom

Students develop awareness of healthy and unhealthy foods. The students engage in a dialog about their eating habits and the possible health consequences of a diet high in calories, fat, salt, and sugar. They learn to evaluate the nutritional make-up of meals at favorite fast food restaurants, and learn to decipher food labels such as figuring out how much sugar is in favorite drinks. With this knowledge, students

decide on the healthiest options at neighborhood diners. Students explore the benefits of eating lots of fruits and vegetables and cutting down on junk food.

The students also investigate food safety issues such as fruits and vegetables doused with pesticides and contaminated fish. They discuss "food miles": the energy used and pollution generated by shipping food over thousands of miles. In-class discussions focus on alternatives to the mainstream food distribution system: farmers markets, Community Supported Agriculture programs, and food grown by themselves in community gardens.

Throughout, students sample locally grown foods such as apples, berries, purple carrots, cucumbers, and radishes. They make salads and try organic peanut butter without added salt or sugar ("Mmm, tastes like crushed peanuts," says one student). To spread information about healthy eating, students in turn offer their schoolmates, teachers, and community locally grown fruits and vegetables at events such as health fairs, parent/teacher night and holiday parties.

In the Community Garden

The community garden is where many students make their first contact with gardening and growing food. This past fall, students planted garlic for summer harvest as they prepared vegetable beds at two local community

Council on the Environment of New York City (CENYC) is a privately funded citizens organization in the Office of the Mayor. Formed in 1970, CENYC promotes environmental awareness and solutions to environmental problems. CENYC contributes to the vitality of New York City's diverse communities, touching the five boroughs and the lives of many thousands of New Yorkers through four programs: Greenmarket farmers markets, Environmental Education, the Greening and Open Space Program, and the Office of Recycling, Outreach and Education. For more information, visit www.cenyc.org or call 212.788.7900.



Students at Bronx Regional High School in the garden with CENYC's Lenny Librizzi.

gardens for spring planting. Students engaged in activities such as weeding, amending soil, planting rye and wheat grass as cover crops, and starting a compost pile. Besides acquiring gardening skills, students learned firsthand about seasonality, poor soil and how to amend it, and invertebrate life in the South Bronx. To help the students make the connection from seed to table, the students have ordered seeds and planned for spring planting with an eye toward including vegetables with the highest nutritional content alongside their favorites.

School-based gardening programs often fail because students leave in June just as the vegetable garden needs the most care. When they return in September, the garden is weed choked or has succumbed to drought. To take advantage of peak growing season, CENYC is offering paid internships to students to help cultivate summer vegetables. In addition to gardening, the interns will publicize farmers markets and the availability of other healthy food in the neighborhood. They will also decide what to do with their harvest: eat it, donate it, and/or sell it.

Empowered Students

As *Learn it, Grow it, Eat it* grows, CENYC hopes to expand the program to other neighborhoods and partner with organizations such as the New York City Department of Health to assist with programs that encourage healthy eating in low income communities. We also plan to work with community-based food justice organizations to make sure residents of the students' communities are aware of healthy foods and where to find them.

CENYC hopes that the teens that experience *Learn it, Grow it, Eat it* will empower themselves to teach their communities about the link between healthy eating and the environment. Often it is the casual comment made by a student that shows a growing awareness of this connection. At the Martha

Nielson School, students are talking about reducing exposure to pesticides while continuing to eat lots of fruits and vegetables. We ask the students how they can do this. Sierra answers, "Buy organic." We ask, "What if there is nowhere to buy organic in your neighborhood?" Sierra thinks for a moment and then offers, "Then grow it yourself."

David Saphire, Project Coordinator for Learn it, Grow it, Eat it, has been engaging intermediate and high school students in environmental and health projects with CENYC's Environmental Education Program since 1999. Lenny Librizzi is the Assistant Director of CENYC's Greening Open Space Program. A CENYC employee since 1987, he brings a wealth of horticultural and educational experience to the gardening component of Learn it, Grow it, Eat it. For more information about Learn it, Grow it, Eat it, please contact David Saphire at dsaphire@cenyc.org or Lenny Librizzi at llibrizzi@cenyc.org.

"I am now able to read food labels and understand what all that stuff means."

— AMANDA, 12TH GRADE
HIGH SCHOOL FOR VIOLIN AND DANCE

NOTES

1. NYC & Company, Inc., *NYC Statistics*, 2007.
2. Robinson, Gail, "New York's Grocery Gap," *Gotbam Gazette*, November 21, 2005.
3. New York City Department of Health and Mental Hygiene, "Health Disparities in New York City," (2004), 8. www.nyc.gov/html/doh/downloads/pdf/cpi/disparities2004.pdf.
4. Perez-Pena, Richard, "One in Eight Adults in New York City Has Diabetes," *The New York Times*, January 31, 2007.
5. Robinson, "New York's Grocery Gap."
6. Centers for Disease Control and Prevention, "Overweight and Obesity," September 2006.



Students from the High School of Violin and Dance learn proper planting techniques.



Students at Bronx International High School survey sugar content of their favorite soft drinks.