

## MS 126 THE JOHN ERICSSON MIDDLE SCHOOL

424 Leonard Street, Greenpoint, NY



*Student designing a stormwater management system*

### PROGRAM DELIVERY

Solar One Educator, Nicole Petti, delivered the Green Design Lab to sixth and seventh grade students at the John Ericsson Middle School. Over the course of the semester, approximately 90 students—three seventh grade classes and one sixth grade class—received the Water unit. Nicole collaborated with teachers Amber Moore and Nina Fagiola, to develop lessons that were accessible to all learners.

Nicole kicked off the semester in April with a demonstration called “A Drop in the Bucket”. The activity helped students visualize how scarce drinking water is on our planet. Students explored how water is naturally replenished through the water cycle by playing an interactive game. During the game, students act as water droplets and randomly select cards from various stages of the water cycle. At the end of the game, students diagram their journeys through the water cycle and predict where it will take them next. Students then go on to learn about reservoirs, watersheds and their drinking water supply. In a lesson on wastewater treatment plants and combined sewer overflows (CSOs), students designed and constructed 2-D models of wastewater/storm water collection systems to help decrease water pollution from CSOs. Other activities included: a blind water taste test, an investigation of tap water versus bottled water, a clean up the lake activity in which students learned about types of water pollution and remediation; and a sewer in a suitcase demo in which students learned how CSOs work.

The semester ended with students coming to Solar One for a field trip. On the trip, students rotated through five water testing stations in which they tested for: dissolved oxygen, pH, nitrates, plankton, turbidity, and salinity. Students also went on a tour of the native plants park where they identified trees, plants, flowers, animals and even a CSO outfall.

### SCHOOL SUSTAINABILITY PROJECTS

Solar One has worked extensively with MS 126 on building their school garden over the past two school years. Solar One Educators Joe Chavez and Alex Smith helped plan and build the vegetable gardens and offered continuing support for teachers throughout the year. Additionally, Solar One secured funding to install an outdoor garden laboratory with wireless sensors and probes to gather data from the soil and weather and compare it to plant health and productivity. Students have access to up-to-date data on the garden in the school science lab. This spring, Solar One worked closely with teachers to support ongoing maintenance of the garden. Solar One provided guidance and much needed supplies for maintaining the garden such as wheel barrows, hoses and tomato cages. Solar One’s Park Manager, Daisy Hoyt, also provided training and guidance for the implementation of a new native plant garden that Nicole Petti and MS 126’s Magnet Coordinator, Amber Moore, are working to install this summer.



*Student working to remediate a polluted water sample*

### ENERGY CHALLENGE

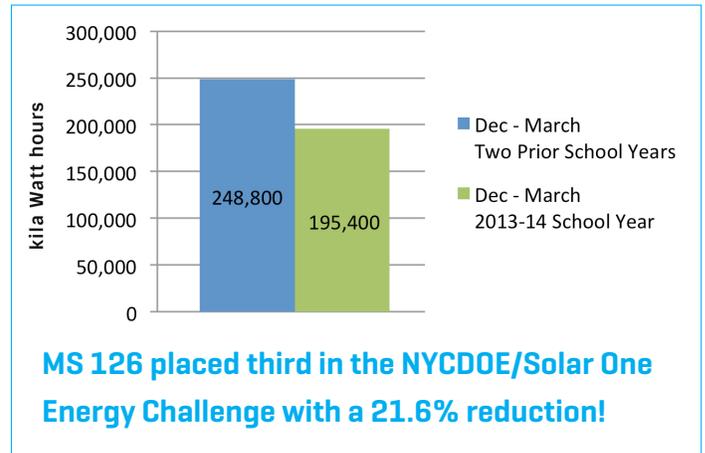
MS 126 was the third place winner of this year’s Green Design Lab Energy Challenge! MS 126 has been a partner and member of the Green Design Lab Sustainable Schools Network for several years and the entire school community is extremely dedicated to saving energy and changing school-wide energy behavior. MS 126 started participating in professional development with Solar One three years ago and the teachers deliver the Energy unit to students as part of

the school's general science curriculum. MS 126 achieved a 21.6% reduction in electricity use during the course of the challenge and received a prize of \$5,000.

## SCHOOL ACTIVITIES

MS 126 students took a field trip to Solar One on June 2, 2014. Students learned about water and park ecology and conducted water tests at our East River site. Nicole Petti conducted a professional development training with two partner teachers on May 20, 2014. Solar One Educator, Sarah Pidgeon, delivered an assembly on energy efficiency and climate change on May 7, 2014 and also presented the students and the Assistant Principal with the energy challenge award.

## ENERGY CHALLENGE



**“Thank you so much everything. I do nothing but rave about Solar One.”**

-Amber Moore