

The Neighborhood Tree Project at PS 45 - 2007

The Children and teachers at PS 45, 58 Lawrence Avenue, Staten Island, New York, 10310 have been collaborating with the Council on the Environment of New York City on the Neighborhood Tree Project (NTP) since Spring of 2003. To date 158 trees on the school grounds and in the surrounding neighborhood have been surveyed primarily by 3rd to 5th graders. The information gathered has been compiled into spreadsheets and maps. The latest maps and data are available at http://www.oasisnyc.net/resources/street_trees/resources.asp.

The NTP was funded through the Forest Service's Urban and Community Forestry Program (Title VIII) to focus on how neighborhood tree data can be collected by community partners, enhanced through computer mapping and analysis, and returned to the public through the OASIS maps. Street trees were surveyed in summer 2002 by adult Citizen Pruners in selected communities in the Bronx, Manhattan, and Staten Island. Data collected included location, height, canopy size and height to crown, diameter at breast height (DBH), foliage density, tree age, condition, surveyor names and the date. Information was also collected about the tree pit. Individual tree locations were plotted on maps enabling OASIS web users to click on a tree to find out its species, height, condition, and environmental & health benefits.

Initially, Lenny Librizzi of the Council on the Environment of New York City, who was part of the team that created the NTP, met with a third grade teacher, Kim Colbeck, and a parent Deirdre Armitage, who was assisting with curricula resources to discuss the idea and if it would be a valuable project to attempt. Subsequently this group met with additional 1st to 5th grade teachers to discuss how such a project might be implemented at the school. In an additional hands-on session, the teachers used the tools and collected data. In June 2003, Ms. Colbeck and an assistant took the children outside to do the surveying. The class collected data on 6 trees which Mr. Librizzi verified for accuracy.

After a successful project with a single class in 2003, the NTP at PS 45 in West Brighton, Staten Island expanded in the 2003 – 2004 school year. The new principal Teresa Caccavale, after meeting with third grade teacher, Kim Colbeck whose class piloted the project in 2003 and two parents, Lenny Librizzi of the Council on the Environment of New York City, who was part of the team that created the NTP, and Deirdre Armitage who is assisting with curricula resources, decided to expand the project to 6 classes. The Neighborhood Tree Project is included in the PS 45 Comprehensive Educational Plan.

Ms Caccavale and Mr. Librizzi subsequently met with 6 classroom teachers and 3 science teachers to introduce the project and to begin to plan implementation with the teachers. Mr. Librizzi conducted 6 staff development sessions in April and May where the teachers were introduced to OASIS and the work that had been done by adults and students in the previous year.

The group of teachers also covered tree identification, on- line mapping resources, use of the measuring tools, cross curricula connections and lessons and an outdoor practical session. It was

The Neighborhood Tree Project at PS 45 - 2007

determined that at least 4 adults would be necessary to make the experience go smoothly and be rewarding for the students. In June, each class spent a morning or afternoon mapping a total of 28 trees around the school. The classes and their teachers were 3-207 Ms. Colbeck, 4-312 Ms. O'Donovan, 2-214 Ms. DeRosa, 3-301 Ms. Vuoso, 3-309 Ms. Kern and 4-307 Ms. Manuele. Science teachers Ms. Guttu and Ms. Hyland assisted.

For the 2004 – 2005 school year, CENYC received a USDA Civil Rights grant to expand the project to 2 schools. A second school PS 31 which was about 1 ½ miles from PS 45 was chosen. This afforded opportunities for the 2 schools to work together and the experienced teachers to help mentor the teachers who would be involved for the first time. The project began with a daylong teacher training at PS 45 that the principal and 8 teachers from PS 45 and the 2 science teachers from PS 31 attended. The teachers from PS 45 were able to share their experiences from the past 2 years with the PS 31 teachers. The 7 classes at PS 45 surveyed 41 trees, 3 classes at PS 31 surveyed 18 trees. A 3rd Grade class from PS 45 had a field trip to PS 31 where they met a 1st grade class also working on the NTP.

The students exchanged small trees that have been planted on the grounds of the schools. They also spent some time outdoors viewing the trees that the 1st graders surveyed and then worked together on an art activity, sponge painting to demonstrate foliage density which integrated art, science and math into one lesson.

To celebrate the collaboration, we also planned a Family Tree Day for both schools for a Saturday in June at Clove Lakes Park, a large regional park near both schools. Children and parents took part in fun tree related activities, playing concentration with a deck of tree cards, making “tree cookie” necklaces, doing water color paintings of the trees and hugging the largest tree in New York City, a 146 foot tall Tulip tree (from the Parks Dept. Great Tree book) and 85 inches in diameter. A group of students measured the diameter with a 6 foot diameter tape. The tree had a circumference larger than the tape! About 100 people of all ages attended and enjoyed snacks and refreshments on a beautiful sunny day. Teachers from both schools were able to compare notes about the project and gather ideas for using nature in their lessons.

One teacher had her 4th graders work on a persuasive writing project by writing letters to Councilmember Michael McMahon asking for trees to be planted in 4 empty tree pits that her students noticed in their survey work. Thanks to the Councilman's help, 4 trees were planted in the fall of 2005.

For the 2005- 2006 school year the NTP was continued at PS 45. Six classes surveyed a total of 34 trees. As of Summer 2006, PS 45 students mapped and measured 110 trees in the neighborhood surrounding their school.

For the 2006-2007 school year, PS 45 teachers worked with CENYC's Lenny Librizzi to develop a curriculum for the program. The curriculum document contains lesson plans by grade and activity. PS 45 also received a \$2500 grant from Best Buy to purchase a laptop computer, 4 digital cameras and an all in one printer, scanner and copier. Eighteen students took part in an

The Neighborhood Tree Project at PS 45 - 2007

after school enrichment program for 5 weeks to learn more about tree identification and the use of handhelds in tree mapping. They used the new equipment during the enrichment program. The students were able to assist their teachers when their classes did their field work. The curriculum development and the enrichment program were funded by Councilman Michael McMahon.

Eight classes assisted by their science teachers surveyed 48 trees. The new map and database now contain 153 trees. In the surveys 5 trees that were surveyed in past years were dead or missing. The map and spreadsheet can be found on line at:

<http://cenyc.org/site/pages/Greening/PS45%2520Street%2520Trees%2520Report%252007.pdf>

Both schools now have maps and data tables that can be used for geography and math lessons. The students will be able to orient themselves to the map, physically locate a feature on the map and compare the location and information of the surveyed trees to what they observe around their school. Using the spreadsheets generated from the data the children collected, they can create a variety of charts and graphs, determine the most common tree species, the average tree diameter, height or age.

The Neighborhood Tree Project successfully uses technology to help bring students in contact with nature. Handheld computers, GIS and other computer software are joined with fieldwork where a student has to actually touch a tree and make observations. An added benefit is that teachers can use the students' real world experiences as a basis of classroom lessons in a variety of subjects. The students and the world can see the results of their research on the web on OASIS. This is something that students can point to with pride and can share with others while also learning a lesson about sharing information and working collaboratively. They can also see how computers and the Internet can be used for something fun and interesting besides games.

For more information contact:

Lenny Librizzi

Assistant Director, Open Space Greening Program

Council on the Environment of New York City

51 Chambers Street, rm. 228

New York, N. Y. 10007

212-788-7927

llibrizzi@cenyc.org