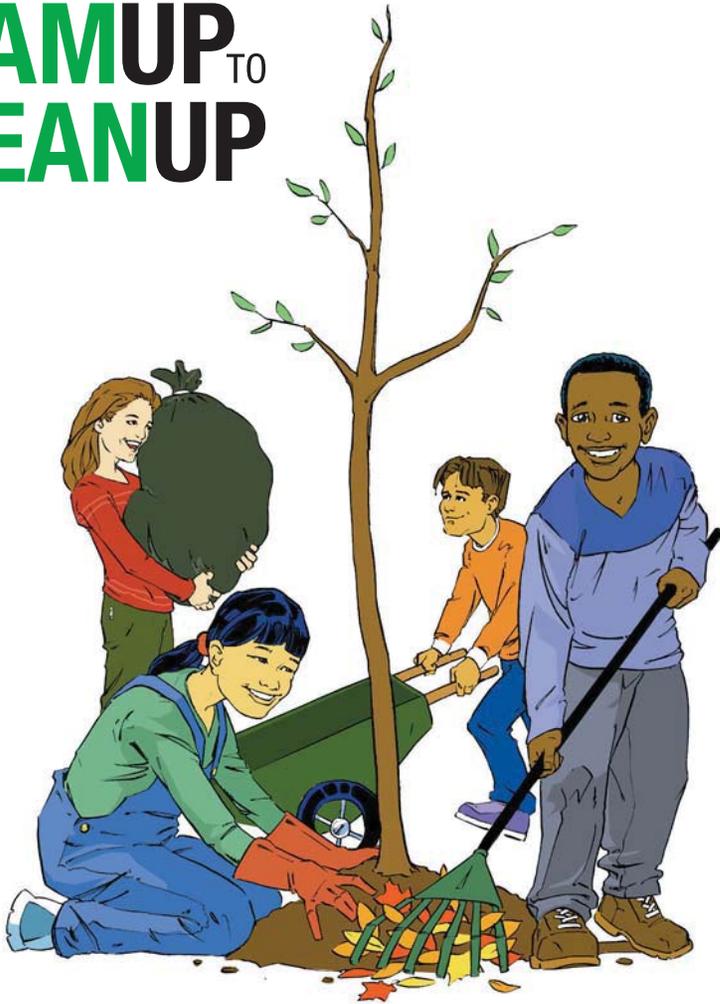


**TEAMUP**<sup>TO</sup>  
**CLEANUP**



Queens Borough  
Winner  
Elementary Division

**Alexander Graham  
Bell School PS 205**

# 2015 GOLDEN APPLE AWARDS

This certificate is awarded with the sincere appreciation and esteem of a grateful Department and City in recognition of your school's efforts to help make New York City shine.



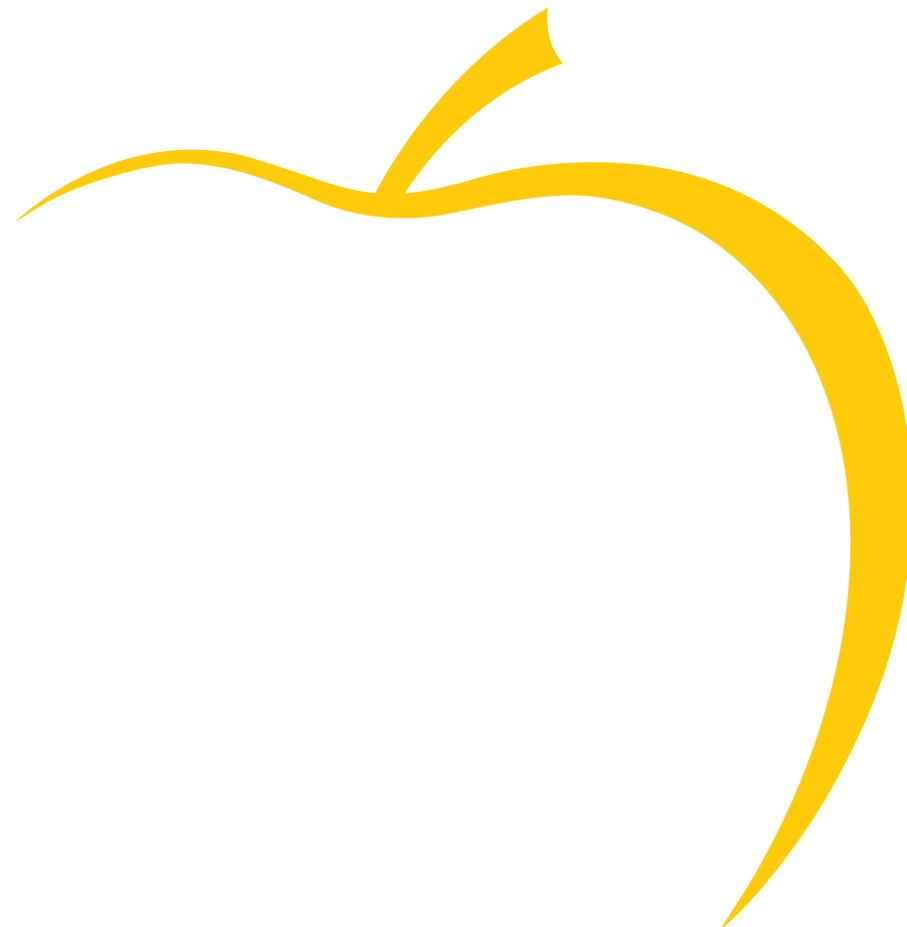
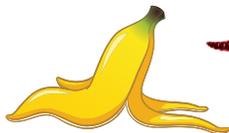
City of New York  
Department of Sanitation  
Bureau of Recycling and Sustainability  
[nyc.gov/recycle](http://nyc.gov/recycle)

**NYC**  
Recycles

NYC Compost Project

# GOLDEN SHOVEL

MASTER SCHOOL COMPOSTER



# 2015 GOLDEN APPLE AWARDS

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**NYC**  
Recycles

City of New York  
Department of Sanitation  
Bureau of Recycling and Sustainability  
[nyc.gov/recycle](http://nyc.gov/recycle)

Created and funded since 1993 by the NYC  
Department of Sanitation, NYC Compost Project provides  
compost outreach and education to NYC residents,  
community groups, and landscapers in all five boroughs.

**NYC**  
Composts

# 2015 Golden Apple Awards Contest Entry Judging Info

(This sheet prepared for judges' use by DSNY BRS)



**ID Info:** 15001  
**School:** Alexander Graham Bell School PS 205  
**Grade Division:** LM  
**Borough:** Q  
**Affiliation:** DOE

(for borough Master School Composter)

**Cash Prize:** \$5,000  
**Team Up to Clean Up Award:** Borough Winner

**Golden Shovel Award:** GS-Q

## Team Up to Clean Up

### Clean, Green Composting Team

PS 205 students began a grassroots, school-based compost campaign by partnering with NYU's Wallerstein Collaborative and Queens Botanical Garden. They implemented food scrap collection in the school's cafeteria, which the students weigh and track and then use to create their own compost which is eventually used in their school garden. Additionally, students revitalized an overgrown high tunnel into a garden filled with flowers, herbs, and vegetables that welcomed Monarch butterflies. The revitalization project engaged various local stakeholders to reinforce the beautification of the neighborhood.

#### Weblink final

[http://www1.nyc.gov/assets/dsny/downloads/pdf/golden-apple-awards/GA15\\_TU\\_LM\\_Q\\_Q205-Alexander-Graham-Bell\\_entry.pdf](http://www1.nyc.gov/assets/dsny/downloads/pdf/golden-apple-awards/GA15_TU_LM_Q_Q205-Alexander-Graham-Bell_entry.pdf)

**School Population: total #** 325

**Core Group:**   
**Total Participating:**

### Collaborations

- NYC Organics Collection
- NYC Compost Project
- GrowNYC RCP
- GrowNYC Grow To Learn
- MFTA
- NWF Eco-Schools
- NYRP MillionTreesNY
- NYRP Rose
- Citizens Comm for NYC

### Prior Year Entries:

02:SR-part,RR-part,TU-C,Rose;03:TU-boro;04:TU-boro;05:RR-ru,TU-boro;06:TU-boro,R R-ru;07:TU-ru,SR-part;08:RR-ru,TU-C

### Current Entries

15:TU-boro,GS-Q

### School Contact Information:

**Phone:** 718 464-5773

**Address:** 75-25 Bell Blvd  
Bayside

**Block&Lot:** 4077530001

**DOE Location:** Q205

**DOE Bldg:** Q205

11364

**Contest Coordinator:**

Cassandra Laugen

**Principal:**

Karen Scott-Piazza

**Sustainability Coord:**

Lilly Chu

**Custodian:**

Rocco Capitini

# “The Clean, Green Composting Team”

The Alexander Graham Bell School P.S. 205Q

75-35 Bell Blvd, Bayside 11364



## Why This?

When the 2014 NYS Standardized Exams were over, the fourth graders were burnt out and the love of learning seemed to have faded. Fourth grade teacher, Cassandra Laugen was about to finish her second year in the “Into the Woods” program at Queen’s College. Under the direction of Peter Schmidt, her content knowledge of Earth Science was deepened and the need to get kids learning outside became ever-present. At the same time, the high tunnel in the school garden, run down (also visibly burnt out) was “calling her name.” She had an “a-ha” moment when she realized the overgrown high tunnel would be the match to reignite the love of learning the children so desperately needed. Revamping the school garden would not only become their classroom, but also would ultimately teach them lifelong lessons on altruism, responsibility and environmentalism. Soon, a grass-roots school improvement project was born. The run down, forgotten garden became a lifeline for many students which led to a natural progression of learning activities across the content areas that exceeded staff and student expectations.

### *The Forgotten Garden*



## Planning and Implementation

First, Cassandra Laugen reached out to various stakeholders: the principal and the custodial engineer to get approval and elicit support for the project. Once the school garden beautification project was approved, Mrs. Laugen reached out to Dr. Mary Leou, director of New York University's Wallerstein Collaborative and her team to share their expertise on urban farming. They visited the school garden and worked alongside students weeding, and prepping the beds. Students learned how to plant and identify weeds such as Mugwort. Additionally, students engaged in conversation about which plants should be planted in the high tunnel and why. Dr. Mary and her team were an essential part of cleaning up the garden. Mobilizing community resources proved to be vital in this project. This partnership continued in October 2015 to assist in planting a winter garden. Students compared temperatures inside and outside the garden using thermometers to test which plants could survive in the high tunnel during winter. P.S. 205 is proud to be part of the Wallerstein Collaborative.

Additionally, the fourth graders developed a curiosity about global warming after they read When Santa Turned Green. They made connections to the theme of the book with Hurricane Sandy which opened the door to deeper conversations about climate change. Students pondered questions like: Who's responsible for climate change? Who has the power to make change? How can we make small changes in our daily lives to help the planet? Fourth grade teachers spoke about how they could take the garden project a step further to reduce the school's carbon footprint. It was then, the brainstorming process for composting began. None of the teachers knew the first thing about composting. Mrs. Laugen reached out to Jeremy Teperman at Queen's Botanical Garden. He and his colleague Marguerite Manela visited the school to train a core group of fourth graders on composting. Then, those students presented their composting expertise to their peers by visiting other classrooms. Some wrote skits while others prepared presentations they created themselves taking into account the age level of their audiences. These activities fulfilled various ELA Common Core Learning Standards.



Mr. Temperman, Mrs. Laugen, student Eliot Seol, the custodial engineer and principal Karen Scott Piazza met at P.S. 205 to discuss the implementation of the food scrap collection process in the cafeteria. Everyone shared ideas on implementation and best practices. Soon after, Jeremy and Marguerite delivered our first compost bin. The compost created was used in our school garden in the fall of 2014!

#### Student Involvement and Educational Components:

Within a short time after the garden cleanup with Dr. Mary Leou, the garden became part of student daily life. An artistic fourth grader, designed a logo for our composting team and our PTA provided the funds to have t-shirts made for every child in grade 4. Students sported their shirts to present their project at Queen's College and The 2014 STEM Expo in New York City. Also, they wore them on key gardening days and during scrap collection. Students fulfilled the Common Core Learning Standards in Speaking and Oral Presentation as they spoke about their project to fellow peers and scientists.

Students kept garden journals where they documented their daily experiences in the garden through art and creative writing, fulfilling various writing standards.

The once tired and overgrown high tunnel became home to a variety of plump tomatoes, towering sunflowers and delicious herbs. Students identified herbs such as basil, sage, peppermint and lemon balm, picked them and cooked with them at home with families, strengthening the home-school connection. Students became problem solvers when the compost bin was swarmed with fruit flies. They resorted to their trouble shooting guides provided by the Queen's Botanical Garden. Using old water bottles and apple cider vinegar, students set up fruit fly traps. To combat a slug invasion in the lettuce beds, students set up slug traps. One of the parents, a true gardening guru, visited the class and taught them how to use beer and recycled yogurt cups to trap slugs. She also donated cocoa shells and egg shells to spread around the soil.

#### How We Got "It" to Work.....

Since P.S. 205 is a small school, there is only one lunch period. Fourth graders were assigned a number from 1-5 which corresponded to the days of the school week. Students wore their t-shirts on their assigned day and were assigned a lunch table. There, they collected food scraps at the lunch tables and dumped them into the compost bin. Another child "guarded" the compost bin to ensure the younger students didn't contaminate the bin. Two students used safety knives to cut up the apple cores before they went into the compost bin. Another group of students then weighed the bin and recorded its weight for that day using a data sheet. One child weighed herself and then weighed herself holding the compost bin. They calculated the difference and recorded it on the data sheet. Every Friday, the totals were added. The principal announced how many pounds of food scraps were collected that week to promote student composting efforts.



Fourth graders also participated in a Monarch Butterfly study using the online database, Journey North. Students studied the Monarch migratory patterns to Mexico. They learned about how overwintering has put monarchs on the endangered species list. This empowered students even more to compost! Fourth graders raised Monarchs in the classrooms while they made and recorded observations. Simultaneously, they planted Milkweed, providing Monarchs with food and Buddleia providing a safe place for Monarchs to lay their eggs right in our school garden. The Monarch Study connected the dots for students as they began to witness how everything in nature is truly connected and how we as humans have power to make our work a better place. Watching faces as they released those fragile, close to endangered species into our garden was nothing short of extraordinary, a truly rare yet magical moment! The spark had surely been lit!



Gardner's Multiple Intelligences were applied full force throughout this entire project. In June as a culminating activity, students had prepared presentation boards to present at the "Into the Woods" science expo at Queen's College and at NYU's STEM Showcase. Students were able to choose which part of the presentation they wanted to be part of. For example, students who loved math, presented the data. They researched and estimated how much New York City spends on sending our garbage out of state. They also calculated the total amount of pounds the school composted in two short months and used those numbers to project how much can be composted in one year using the data sheets. Artistic students created signage with catchy logos, designed the boards and created origami tulips to pass out to those who visited their station. Children with a love for writing, wrote about the goals of the garden and edited works of their peers. Those who had a knack for science, researched Aerobic Digestion and how it creates compost. The future engineers created a model of the layout of the garden using centimeter grid paper to share "the vision." Children with strong intrapersonal skills orally presented the composting project on behalf of their peers. Literally all minds "were on" throughout the entire process.



## Press:

We are featured on the Queen's College Website

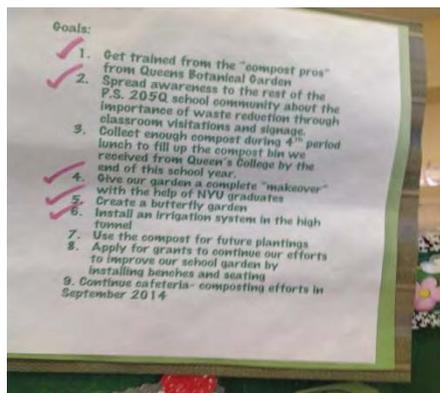
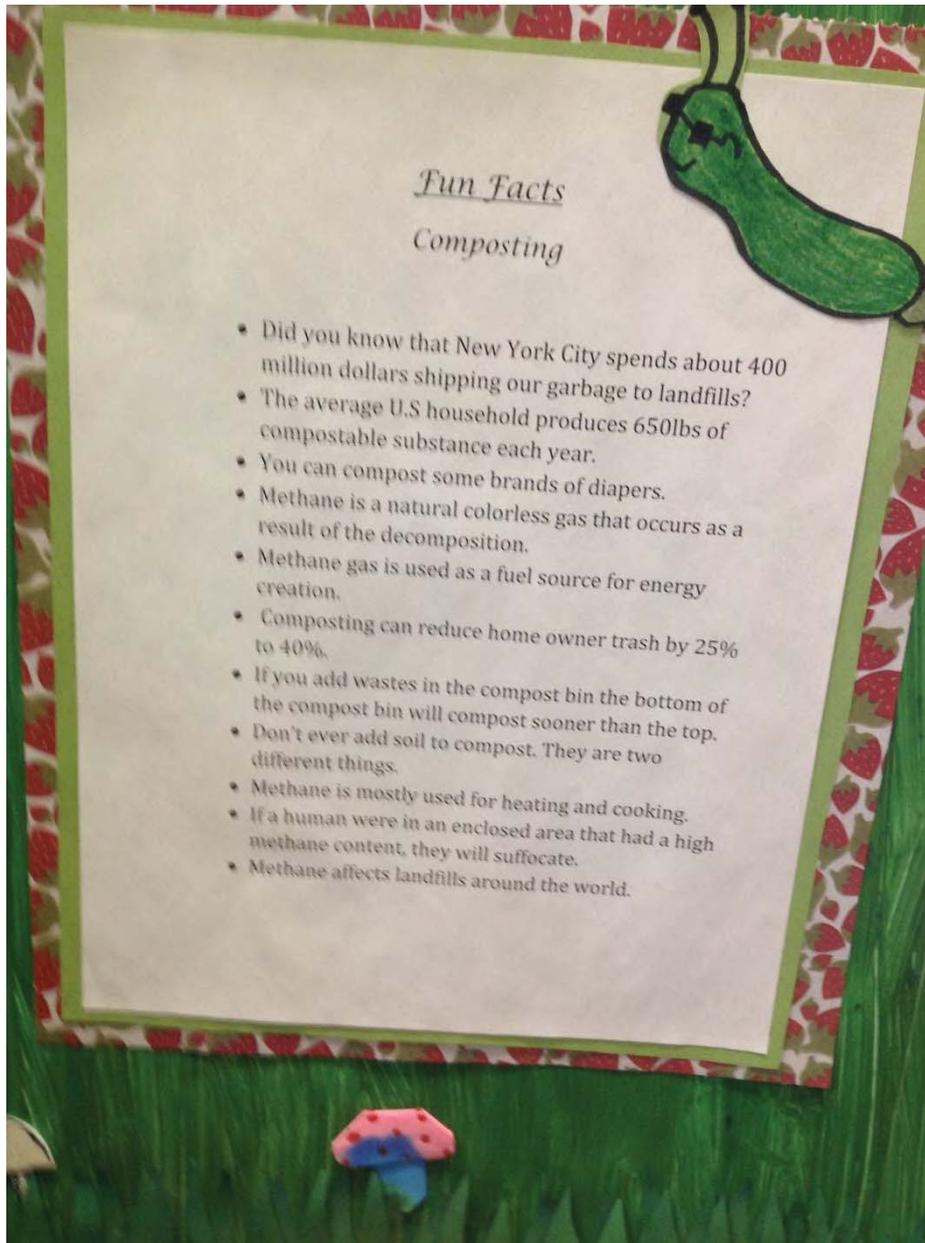
<http://www.qc.cuny.edu/Academics/Degrees/DMNS/sees/GLOBE/Intro%20the%20Woods/Pages/Service-Learning.aspx>

We are on the NOAA Site too!

<http://www.oesd.noaa.gov/archive.php?cate=GRANTEE>



## Student Work Samples





### The FBIs

F.B.I.s is the three different groups that help us compost.

The f in the F.B.I stands for fungus  
 The b stands for bacteria  
 The I stand for invertebrates

Fungi are organisms that go in their own separate kingdom. Fungus may be the largest living organisms. The mycelium is the most important part of fungus that goes in the soil and break down plants and animals.

Bacteria are organisms that help break up living things. They can make us sick. But bacteria are helpful to the compost in process. Bacteria can be harmful to us (humans) but they help the compost bin. Bacteria can make you sick by invading through your cells and damaging them. Bacteria can help compost by breaking food down into little pieces. It is good to break down the food because it would be easier to crank up the foods in the bin.

May 13 2014

## My reflection on garden work.

Oh boy! The garden work was tremendous! Oh- we did so much, I don't know where to start!!!

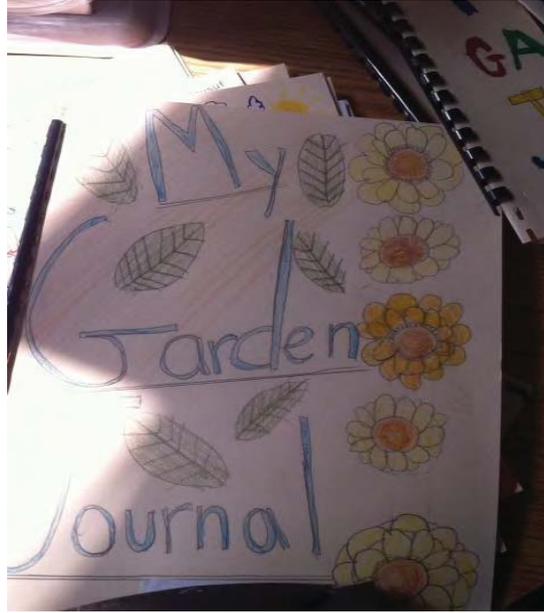
Oh so first we were assigned a groups. Our groups job was to weed. And BAMM! we heard an OUCH. It was my friend Jeannie turns out she stepped on a thorned weed. Our teacher said not to touch it, but we just picked it to go way into the trash. So we did. It took three people to get that Bazar plant out. Next we got to the weeding, there were so thick some of us fell down. And after a couple of Dirty minutes later I looked at my knee. It was so dirty I could faint!!!

I couldn't sit there and weed, so I decided to go and plant some flowers around the perimeter of the garden. And we found a whole

Collaboration.. “It takes a village to grow a garden!”

Community resources were the backbone to this project. Peter Schmidt from “Into the Woods” provided resources on the Monarch study such as a butterfly castle, milkweed seeds and seedlings and the actual larvae along with soil fertility kits. Dr. Mary Leou and her graduate students continue to be a source of support while providing advice along the way. The composting wouldn’t have been possible with Jeremy and Marguerite at Queen’s Botanical Garden. Also, Rocky our custodial engineer and his team water the garden over the summer and provide our high tunnel with repairs. Rocky is involved in the entire planning process which is key. He lets us know where the best locations on the property is to set up equipment such as the compost bins and has installed our irrigation system. Rocky has been our “go to” every step of the way. Principal Karen Scott–Piazza continues to be very excited about all the gardening and composting efforts and supports us whenever she can with whatever we need. Parents have assisted on our trips to present our gardening project and have been invited to work alongside students during gardening days. Recently, we sent out parent surveys to get names of parents who are interested in volunteering in the garden. We are currently in the planning stages on how to involve more parents and teachers.

Science teacher, Fran Bosi works with second graders on earthworm and composting investigations and uses the compost in the high tunnel. She also plants lettuce seeds with first graders. Teachers from P.S. 224 which is a district 75 school on the third floor in our building have collaborated with us. Children with special needs germinate sunflower seeds in the classrooms to learn about what plants need to grow. P.S. 205 fourth graders help them transplant them after germination in the high tunnel. Children from P.S. 224 originally thought food came from the supermarket, now through our high tunnel, they are learning food is grown in soil in a garden!



### Measuring Success, What Didn't Work and Where We are Going...

It is difficult to measure student engagement and excitement with numbers but the student work and photos reflect that almost all, if not 100% of students were totally committed and dedicated to this project. The feedback from parents has been tremendous. Incoming fourth grade parents have shared their delight and excitement that their children will be working in the garden. Also, their journal entries speak for themselves. These children are now in the 5<sup>th</sup> grade and want to keep working in the garden. They will now team up with the current 4<sup>th</sup> graders in spring to plant new crops and compost. According to the data students collected, they composted 151 pounds of scraps in two months! Most importantly, our high tunnel is back and better than ever!



## Future Projects

\* In June 2015, Jeremy and Marguerite will visit to build a three part composting bin alongside students and staff! We are so looking forward to the upgrade! Now, we don't have to stop composting when our earth machine becomes full!

\*Beginning at the end of April of this year, students will meet on Thursday afternoons for a gardening after school program called "Green Thumbs." Students across the grade levels will now have access to the garden where they will plant, observe, test soil fertility, record data and nurture the plants. This will allow more children to have access to the garden.

\*This year, we plan to have a mini school farmer's market on the second to last day of school to sell lavender, herbs, sunflowers and maybe some tomatoes from our garden. Monies raised will go towards purchasing seating so children can sit and read in the garden. The children will vote on how the money is spent.

\* Dedicate more time for the general education population from P.S. 205 and the special needs population from P.S. 224 to work together so

students will “each one, teach one” to build community and awareness of unique abilities.

- \* Next fall, we plan to initiate monthly designated compost days where families can drop their scraps from home into the bin in the garden. Parent volunteers can help maintain the compost bin.

- \* Start planning for possibly starting a chicken coop to support the ELA study for students in grade 2.

- \* Students in grade 4 can give garden tours to visiting classrooms.

What Didn't Work...

- \* Last year, we planted a bit too late (early May) so students couldn't harvest all the crops. Over the summer, there was a copious amount of tomatoes and green beans that students never got to see. This year we will plant much earlier (early-mid April). Finding time to plan is always a challenge.

- \* Students became slightly frustrated with having to cut the apple cores. It was very timely. Since space is an issue in the cafeteria with the whole school eating during one period, we will explore other safe options such using ice picks outside in buckets.

- \* The tubing in the irrigation system keeps bursting so we often resort to using a sprinkler to water the garden. Rocky will hopefully get to the bottom of it!

- \* The high tunnel gets very hot by the afternoon in the month of June so we will have to think about installing a solar fan, if possible.

- \* Time is always of the essence. It is difficult to find time to sit and plan with other staff and engage them so they can become more involved.

Applicability to Other Schools:

Through Mrs. Laugen's work with the “Into the Woods Program,” she shares her experiences with other teachers across the city and with director Peter

Schmidt. “Into the Woods” allows teachers to come together on Saturdays to share their school improvement projects so they can be replicated. Additionally, she continues to communicate with Jeremy and Marguerite composting practices as they streamline “best practices” at the Botanical Garden to share with other schools they work with. Additionally, participating with the Wallerstein Collaborative have allowed us to network with other schools who garden at science expos. We plan to have “garden inter-visitations with Williamsburg Prep in June. Utilizing these valuable community resources have put us in contact with teachers and schools across the city we would have never met! These connections have created many opportunities to shares ideas and thoughts that can be applied to other school communities while meeting their own unique needs. These face-to-face conversations in these professional learning communities sets motion for inspiration and sharing ideas on gardening strategies and planning.



