

SUPER RECYCLERS



Citywide Winner
Intermediate Division

IS 75
Frank D Paulo

2016 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
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GOLDEN SHOVEL



MASTER SCHOOL COMPOSTER



Staten Island
Winner

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School Information

- School Number: PS 75
- School Name: Frank D Paulo
- School Address: 455 Huguenot Avenue
- School City: Staten Island
- School Zip Code: 10312
- School Population: 1200

Contact Information:

- Principal Name: Kenneth Zapata
- Coordinator Name: Suzanne Nowicki
- School Phone Number: (718) 356-0130

Contest Entry:

- Contest Grade Division: Intermediate
- Contest Entry Title: Redesigning Our Recycling
- Contest Entry Summary: I.S. 75 employed 3 strategies in an effort to become a zero waste school this year. First, our Green Team reorganized our recycling program in June of 2015, to establish good routines for the 2015-2016 school year. Through a partnership with Grow NYC Recycling Champions, Pratt Industries, and the School's Out New York City (SONYC) program in our building, the team completely revamped the school's recycling behaviors. Second, by working with Terracycle, the students could remove additional items from the waste stream to be upcycled into new products. Third, the Green Team began composting with a small tumbler to produce soil for this spring.

Super Recyclers Of Intermediate School 75

Redesigning our Recycling



Super Recyclers

I.S. 75 employed 3 strategies in an effort to become a zero waste school this year. First, our Green Team reorganized our recycling program in June of 2015, to establish good routines for the 2015-2016 school year. Through a partnership with Grow NYC Recycling Champions, Pratt Industries, and the School's Out New York City (SONYC) program in our building, the team completely revamped the school's recycling behaviors. Second, by working with Terracycle, the students could remove additional items from the waste stream to be upcycled into new products. Third, the Green Team began composting with a small tumbler to produce soil for this spring.

Recycling paper and cardboard

The Green Team contacted Pratt Industries and obtained 75 cardboard recycling bins for paper. After school, the student team constructed the boxes, attached the labels, taped the bottoms for sturdiness, outfitted them with plastic bags and distributed them to every classroom in the building. Larger bins were placed in every complex, at the main entrance, and in the main office.



Recycling metal, glass, plastic, and cartons.

The Green team learned the importance of utilizing the established colors, green, blue, and black for each stream of waste. In an effort to reinforce this throughout the building, our principal purchased large blue bins for each complex. We found the most common item NOT recycled was student water bottles. The Green Team addressed the staff at a faculty meeting to establish routines for students to discard their bottles in the proper receptacles during the passing of classes.

Organics

First, our school invited Grown NYC Recycling Champions to come host 6 small, interactive, group assemblies. Each grade was broken into two groups so that the assembly had a more intimate feel. Students were given pretend lunches and had to sort out their lunch. This helped drive home the fact that through the organics program and recycling program, there is very little that ends up in the garbage. Students also learned different ways they could package their lunch to remove the soft plastic that cannot be recycled or composted. Second, each week the Green Team had after school lessons on what can and cannot be composted. After that, they composted organics in a small tumbler outside the cafeteria in order to produce soil for the spring.

Recycling collection and setout

Perhaps the greatest development in changing our recycling program was the partnership between the school custodians and Green Team. Communication between the students, teachers, and custodians has never been so productive as this past year.

Each classroom designated one student to be their paper monitor. At the end of the day, the paper monitor would take the classroom bag of paper recycling and deposit the contents in the larger complex bin. After school, the custodian would take the filled complex bag of paper recycling to the paper-recycling bin outside. Every Monday after school, the Green Team would check the classrooms in the building to be sure that paper was being removed to the complex. In addition, the students would check the main bins to ensure that incorrect items were not entering the paper waste stream. The students enjoyed using grabbers for this task. If classrooms were not emptying their bins properly, the Green Team students would speak to that class the next day. Other times, students left notes on the teacher's desk after school to remind them of procedures or to compliment their great work. In addition, if the custodians found a classroom that was struggling with their recycling behaviors, they would come visit the group on Mondays to let the Green Team know what room needed guidance. The custodians gave the students a wonderful feeling of being important and helpful during these weekly meetings.



Metal, glass, plastic, and cartons took a different, yet similar pathway. Being our first year with this new recycling procedure, the Green Team decided to keep the blue recycling containers in the complexes instead of each classroom. Students and teachers were encouraged to recycle these items in each complex between classes or during lunch. Green Team members guided their teachers in what can be recycled, if they noticed recyclables in the black classroom garbage bins. Students would share how they helped the teachers at our weekly meetings. Custodians would empty the blue bins to the main recycling bin outside.



School Recycling Program Implementation

Before and after. The objective of the Green team was to make I.S. 75 a zero waste school through three practices: recycling, upcycling, and composting.

Before the Green Team set out to recreate our school recycling program, our recycling habits were poorly exercised. Students could not clearly tell the difference between paper and plastic recycling. Often blue recycling bins ended up being used as trash bins. The green trash bins were confusing to students because it did not follow the blue, green, black established colors throughout all of New York City.

After reorganizing, hosting assemblies, and constant Green Team monitoring, we have seen a huge reduction in our black garbage waste production. The custodians commented that they have one garbage bin per floor now instead of several. The students weighed the main complex garbages on Mondays and found an average of 32 lbs. per complex...that's about 90lbs of paper per floor that

day! Many offices and specialty teachers in the building joined along with the Green Team to recognize how they were wasting paper and restructured their recycling with the cardboard bins too.

As the Green Team checked recycle bins, they also kept their eye out for any items that could be shipped back to Terracycle and upcycled into new items. Not only could the entire school bring in these items from home, but the Green Team members loved finding items around the building that could be put into the Terracycle bins and removed from our waste stream.



Project planning. The original group of Green Team members from June 2015 planned the organization of our recycling program. The students spent the early weeks completing a plastic ISRI JASON project, upcycling projects, and composting lessons to develop an understanding of where garbage could go instead of to a landfill. Each of those green team members led a station of SONYC students in construction and distribution of the recycling containers.

Student involvement. As previously mentioned, Green Team members were in charge of organizing the entire school recycling program. Our SONYC program hosted an after school assembly where GrowNYC Recycling Champions educated the entire group about recycling. Then, once the students were excited, they created the bins. With the help of counselors, the students efficiently distributed those bins around the school. During school assemblies, Green Team members were given special recognition to help promote the team throughout the building. Green Team members also created notes for classrooms and practiced their public speaking to address teachers in need of guidance. Every classroom in the building had 2 students who served as that classroom's recycling monitors, resulting in 100 students involved in every day recycling. In addition, 50 SONYC members created and distributed boxes, and 28 Green Team members learned and shared information about recycling.

Collaboration.

- GrowNYC Recycling Champions, specifically Jackie Junntonen, led the team to recreate our recycling program. Her expertise and excitement for the program fired up the teachers and Green Team members.
- Pratt Industries generously donated all of the cardboard boxes and provided an on-site tour for the Green Team Teacher that helped shape our understanding of paper recycling to share with the students.

- SONYS provided project time and assistance from counselors to implement the program in June 2015 and throughout the 2015-16 school year. Students worked with counselors and teachers to complete the project.
- Terracycle has allowed us to remove even more landfill waste while raising funds for the school.
- Fresh Kills Park provided free tours of their site as well as in class presentations for students to help them understand the history and changes of our Staten Island landfill.
- I.S. 75 custodial staff worked wonderfully with the children to provide supplies, feedback, praise, and keep the recyclables moving.

Educational components.

A. Common Core Learning Standards

CCSS.ELA-LITERACY.RST.6-8.3

Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

CCSS.ELA-LITERACY.RST.6-8.7

Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

CCSS.ELA-LITERACY.RST.6-8.9

Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

B. New York State Standards

IPS 1.1 Analyze science/technology/society problems and issues and plan and carry out a remedial course of action.

LE 6.1a Energy flows through ecosystems in one direction, usually from the Sun, through producers to consumers and then to decomposers. This process may be visualized with food chains or energy pyramids.

LE 7.2d Since the Industrial Revolution, human activities have resulted in major pollution of air, water, and soil. Pollution has cumulative ecological effects, such as acid rain, global warming, or ozone depletion. The survival of living things on our planet depends on the conservation and protection of Earth's resources.

PS 2.1h The process of weathering breaks down rocks to form sediment. Soil consists of sediment, organic material, water, and air.

Photos of Hands On Projects



Sample Lesson Plans

Program Site: IS 75

Program Director: S. DiStefano

Activity Title: Green Team

Teacher: Ms. Nowicki

Date: September 21, 2015

Time: 3:45-4:45

Facilitators/Participants: 1/28

Duration: 1 hour

Materials:

Notebooks

Recycling promotional materials

<https://www.youtube.com/watch?v=qXABIDk4cYU>

pizza box and post office box with Pratt Stamp on it

Learning goal: How do we lead our school building in becoming a zero waste school?

Description:

Students will view an introduction video on Paper recycling at Pratt Industries. Discuss Ms. Nowicki's visit to the plant and how our paper recycling will be used on Staten Island.

We will assign student monitors for each class to represent the Green Team and speak to their class about the paper recycling. Practice public speaking in small groups.

Break into groups and move throughout the 1st, 2nd, 3rd and 4th floors to visit each teacher's room and grade their recycling set up, leaving feedback for the teacher.

Challenges:

Students will see where we stand based off of what we introduced last June and how the school has picked back up the established recycling behaviors. Some may become disappointed instead of motivated by the behavior of their peers/teachers.

Students will have a chance to "grade" classrooms and provide feedback for the teachers. Establishes that someone cares about how the teacher/class recycles and that they will be checked up on throughout the year. Must be kept in a positive light to encourage and not discourage participation.

Program Site: IS 75
Program Director: S. DiStefano

Activity Title: Green Team
Ms. Nowicki
Date: October 5, 2015
Time: 3:45-4:45
Facilitators/Participants: 1/28
Duration: 1 hour

Materials:
Compost worksheet: What can we compost?
Compost reference sheet
DSNY 3 streams of waste worksheet

Learning goal: How do we lead Paulo to become a zero waste school through our 3 activities of recycling, upcycling, and composting.

Description:
Review with students our goal to be a zero waste school.
Reiterate the plans we have in place for recycling, upcycling and introduce compost.
Allow students to work in pairs to circle items that can be composted and items that cannot be composted in our personal compost bin. Circle compostable items and cross out not compostable.
Discuss the difference between our personal compost and the industrial compost bin and what goes in each.

Have students list every piece of garbage they created today in their journals. Show the four boards: Waste, Recycle, Upcycle, and Compost. Have students write in garbage items that fit into each of these categories and cross them out of their journals. Illustrate how little garbage makes it into the waste stream after recycling, upcycling, and composting.

Break into groups and move throughout the 1st, 2nd, 3rd and 4th floors to visit each teacher's room, paying special attention to those who were struggling last week. Check the tape on the bottom of the boxes, and evaluate items found in the complex large recycling bin. Were there problems?

Challenges:
Having the students understand that almost everything we eat can be composted, but there is a difference between industrial compost piles and our small building one.

Program Site: IS 75
Program Director: S. DiStefano

Activity Title: Green Team
Ms. Nowicki
Date: October 19, 2015
Time: 3:45-4:45
Facilitators/Participants: 1/28
Duration: 1 hour

Materials:
Compost bin outside
Video: https://www.youtube.com/watch?v=_6xlNyWPpB8
Terracycle boxes
School paper recycling bins/ garbage bags

Learning goal:
Students will be able to list three ways we are working to become a zero waste school.
Students can see and feel the compost bin we use for school recycling.
Students will be able to contrast recycling and upcycling.

Description:
Watch the TED video: What really happens to the plastic you throw away.
https://www.youtube.com/watch?v=_6xlNyWPpB8 Discuss how students feel about the landfill and what they know about Fresh Kills Landfill. Reinforce the importance of recycling and our role in the school building as Green Team.

Students will take a trip outside to the compost bin. We will review greens and browns from last week's lesson. If any students brought in greens, we will add them with even amounts of brown. Discuss the FBI: Fungus, Bacteria, and Invertebrates who break down our compost. Discuss what we will use this soil for in the spring (planting project).

Students will then come to 301 and help sort and package Terracycle materials collected from the school. Any students who have brought in terracycle items, they will count and add their items.

Break into groups and move throughout the 1st, 2nd, 3rd and 4th floors to visit each teacher's room. Check the tape on the bottom of the boxes, and evaluate items found in the complex large recycling bin. Were there problems? What is the weight of each box in the complex.

Challenges:
The difference between greens and browns. Both are organic and good for compost. Items at different stages of decomposition can be considered both (ex. Live grass versus dead grass)

Project Analysis

The most successful component of this project is the reduction of landfill waste the school was producing last year compared to this year. Educating the building on how to recycle, and seeing a strong group of students lead the way, has encouraged other students and adults to get their recycling act together.

Our biggest area needing improvement would be time together. Discussing and working on our 3 ways to make I.S. 75 a zero waste school could use 3 days a week instead of one to complete projects.

Our design is completely possible in every school. All it takes is cooperation between the students, teachers, staff, and custodians. The custodian's feedback on challenges as we were shaping the program helped maximize efficiency.

We have two immediate areas where we would like to expand our recycling project for next year. First, we would like to improve the containers we use for paper recycling. We constructed the paper bins last June and purchased black garbage bins this September for every classroom. Next, we would like to purchase green plastic bins to hold paper recycling for each classroom and larger green bins for the complex to match the blue ones. Although the students are doing a great job, they are rough on the cardboard boxes and they may not make it another school year. This way each year our recycling program is becoming clearer and more permanent to the students and staff. The second expansion we would like to incorporate is purchasing a Terracycle Coffee Capsules Zero Waste Box. The students identified this waste stream as something everyone uses and we do not currently recycle. By purchasing the box, we could collect this waste stream from the entire building and anyone nearby who would like to drop off at our site, removing a huge amount of landfill waste.

Measuring success.

Overall, the feeling around the building towards recycling has completely shifted in a positive direction. The students measured an average of 32 lbs. of paper recycled per complex per floor. With 3 complexes on each of the 4 floors, that is an astounding 384 pounds of paper recycled just on Mondays! The partnership between the students and custodians has been phenomenal. The overall impact on our building has changed how we discard items in the classrooms and encouraged several interested staff members to come forward to help.

Terracycle has become a fixture in our building since we have been participating for several years. Some of their free recycling programs no longer award points to our account, but the students feel keeping these items out of the waste stream is more important than what we receive in return from the company. Some of our account data is listed below:

You have earned 183,735 points so far.

Free Recycling Program	Units Collected	Points Earned
Drink Pouch Recycling Program: Capri Sun	33,413	49,331
Scotch® Tape Recycling Program	1,791	9,540
Personal Care and Beauty Recycling Program	1,953	2,648
Cell Phone Brigade®	7,500	7,500
Colgate® Oral Care Recycling Program	1,681	3,362
Energy Bar Wrapper Recycling Program: Clif Bar®	25,047	23,722
Shoe Donation Program	267	472
Inkjet and Toner Cartridge Brigade®	3,900	3,900
Entenmann's Little Bites Pouch Recycling Program	2,469	3,438
E-Waste Recycling Program	1,118	1,100
Cork Brigade	8,127	2,834
Bear Naked® Recycling Program	551	1,102
Cookie Packaging Brigade®	6,766	13,532
Candy Wrapper Brigade®	3,406	4,882