

SUPER RECYCLERS



Citywide Runner-Up
Elementary Division

NEST+m
New Explorations into
Science Technology and Math

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
nyc.gov/zerowaste





School Information

- School Number: M539
- School Name: New Explorations into Science Technology and Math
- School Address: 111 Columbia Street
- School City: New York
- School Zip Code: 10002
- School Population: 1770

Contact Information:

- Principal Name: Mark Berkowitz
- Coordinator Name: Lina Mai
- School Phone Number: (212) 677-5190

Contest Entry:

- Contest Grade Division: Elementary
- Contest Entry Title: NEST+m Super Recyclers 2016
- Contest Entry Summary: NEST + m is unique because it is the only K - 12 public school located in Manhattan. NEST + m collaborated with Cafeteria Culture to jump start its recycling program with the K-5 students as leaders. The strength of this program is that it teaches the whys and hows of recycling and that the K-5 students are very enthusiastic participants.

A green graphic of a globe with two leaves on the right side, all in shades of green. The globe shows the continents of North and South America. The leaves have white vein patterns.

NEST+m

SUPER RECYCLERS 2016

NEST+m

is a K-12 public school located in Manhattan on the Lower East Side on Houston and Columbia Streets. There are 1700 students.



SHIMON'S GARDEN

was created in memory of Shimon Watanabe who would've graduated HS this year. This effort is dedicated to him.

BEFORE the recycling program

- There was little recycling going on in the building. Paper was separated in the classrooms but at the end of the day, everything went into one bin!
- Attempts were made in the cafeteria to “flip, tap and stack” the polystyrene trays (so happy they’re gone!) but it wasn’t enforced and therefore wasn’t sustainable. Before the recycling program was implemented, the custodians and School Food workers had to use many more plastic bags because there was no stacking of trays and dumping out of liquids. Custodians and School Food employees spent a lot more time replacing bags in the cafeteria before the recycling program.
- Student led green team conducted recycling efforts for old electronics which were delivered to the lower east side ecology center.
- Student led collections of old phones, batteries, markers
- Gently used NEST uniforms have been reused. This program has been very successful since NEST began.
- Purple microfiber towels were introduced five years ago for all of NEST to use instead of paper towels.
- Homemade cleaning products (Bronner’s soap and water) have been used with recycled plastic spray bottles for all of NEST to use.
- Recently, Halloween costumes have been reused at NEST.

Project Planning

- The objective in implementing the recycling program is to become a zero waste school and to be a model for the rest of NYC schools.
- Recycling at NEST started in the cafeteria and is currently in the process of moving to the upper floors to ultimately have the entire building be in compliance with the recycling mandate. NEST's goal for this is June 2016.
- NEST PTA hired Cafeteria Culture (CC) (www.cafeteriaculture.org) which is run by Debby Lee Cohen, Atsuko Quirk and Rhonda Keyser. CC taught all NEST students "Garbology 101" classes which teaches students why it's important to recycle and also how to recycle.
- The program focuses on student involvement. The K-5 students become "cafeteria rangers".
- After the K-5 students eat lunch, the students that are on duty that week go to the recycling area, put on their gloves and badges showing which part of the recycling process they are in charge of. The badges include recycling captain, plate captain, compost captain, landfill captain, and green leader.



To have a successful zero waste program in NYC, it is most important to incorporate the “whys and hows” into the school curriculum at a young age. Grades K-5 are the most enthusiastic participants in this program and it is most valuable to incorporate this experience in those early years.

NEST+m

PTA hired Cafeteria Culture

www.cafeteriaculture.org

to help implement the recycling program. Their grassroots philosophy of teaching the hows and whys in the “Garbology 101” courses were instrumental and the most important step in the success of the recycling program.



Cafeteria Culture's, Debbie Lee Cohen, teaching elementary students "Garbology 101" with the help of her trusty assistant, the polar bear.



Ready to launch!



With "Garbology 101" training behind them (Training started in early December 2015), the launch day was January 14, 2016.

K-5 aged "Cafeteria Rangers" were excited to get to work. Rangers are in charge of two sets of bins which include:

1. metal, glass, plastic and cartons
2. organics
3. paper and cardboard
4. Landfill
5. liquids





Each Ranger wears a badge and gloves while on duty.

The well trained K-5 students were excited to be Cafeteria Rangers.





Recycling in action!

A student documenting the new recycling system





At the end of the launch day, January 14, 2016, the trash was weighed by Atsuko Quirk from Cafeteria Culture.

Waste going to the landfill went from 350 pounds to 8.7 pounds and from 23 bags to 2 bags!



The compostable plates are stacked, using less bags and they go in with the food compost to be hauled to a farm in NY state and used as fertilizer for farms in the near future.

WASTE AUDIT



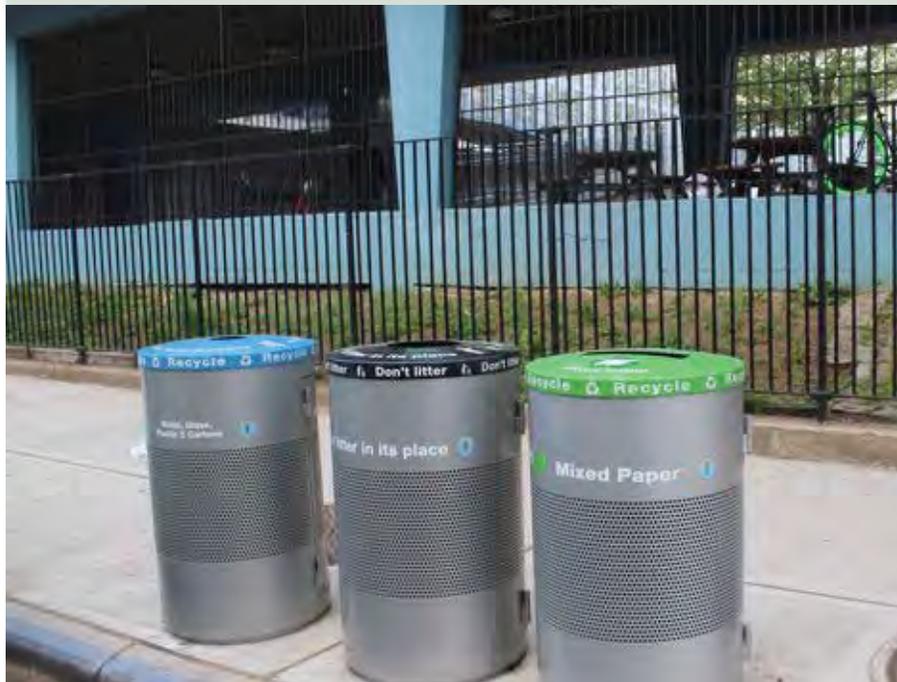
BEFORE: 23 bags weighing 350 pounds goes to the landfill.



AFTER: 2 bags weighing 8.7 pounds goes to the landfill.

On Dec 15, 2015, Cafeteria Culture performed a waste audit of the garbage that went to the landfill from the cafeteria. Without separating the garbage into recycling and compost and dumping the fluids, there were 23 bags weighing 350 pounds. On January 14, 2016, after the student Rangers separated and recycling, only two bags weighing 8.7 pounds were sent to the landfill. For consistency and accuracy, the food served by School Food on those two days was the same. After separating and recycling there were 166 pounds of food scraps, 32.3 pounds of compostable plates, 27 pounds of recycleables, and 2.4 pounds of recycleable paper and cardboard. 228.3 pounds was diverted from the landfill and incinerator (liquids were not included in the total which were also diverted from the landfill.)

**NEST+m 3rd graders from
Ms. Wilen's class
requested and received
new recycling cans for
Columbia St.**



sanitation

Kathryn Garcia Commissioner

125 Worth Street
Room 720
New York, NY 10013
ny.gov/sanitation

(212) 312-2070
k.garcia@nyc.gov

March 11, 2016

To Ms. Wilen's 3rd grade class

Thank you for your letters about trash and recycling in the neighborhood around your school. Your letters and drawings are quite inspiring, and I encourage you to continue to learn more about trash and recycling and the positive ways you can improve your community.

I have asked the local Sanitation garage to place recycling bins at the corner near your school. I hope that your class will help remind your fellow students and neighbors what things to put in the recycling bins and reduce the amount of trash in the litter baskets.

As your letters mention, recycling helps to keep our trash out of landfills and can give new life to cans, bottles, paper, and many other products. In fact, the City last year set a goal to send zero waste to landfills by 2030 by reducing the amount of waste we generate, reusing and sharing more, increasing our recycling, and composting food scraps and yard waste.

I also encourage your school to enter into the Department's Golden Apple Awards program, which recognizes students, teachers, and schools that implement innovative and exemplary programs for recycling, waste prevention, community cleanup, and beautification. You can learn more about the awards at www.nyc.gov/goldenapple.

I am inspired by your commitment to helping us keep New York City healthy, safe and clean.

Sincerely,


Kathryn Garcia

City Hall “ban the bag” rally April 13, 2016



NEST+m students made posters and participated in the “ban the bag” rally with the encouragement of Cafeteria Culture.



Physical Education – Reduce Reuse, Recycle unit designed for 3rd and 4th grades

- NEST+m's K-5 Phys Ed teacher April Barabash created a game incorporating (locomotor skills and throwing) activity and at the same time answering questions of "why recycle?", "why is littering harmful to the earth" and "how can we recycle?"
- Equipment needed: Cones, photos of litter, buckets, labels "recycle/soft cardboard/paper", Food scraps/compost "Trash/landfill" "recycle/plastic".
- For the full description, here is the link.
- <https://docs.google.com/document/d/11NOdkrzNeWU1V11df9NI682aKHbC-yHQnLda64AVb1c/edit?ts=56f2b6e5>

Middle school volunteers

There were fewer students interested in the program at the middle school level, but the students that were interested were engaged and came on a regular basis.



High School volunteers were offered community service hours for their help with the recycling program during lunch time



Upper school student involvement

- The upper grades environmental science students have been assisting with recycling in their community by volunteering for the school wide initiative of 'trash' reduction. Students received training and orientation in how refuse was historically managed to how it is sorted now. Students have had the opportunity to put into practice what they've learned. The environmental science students have also spearheaded the revitalization and maintenance of a school garden. In the garden, students have learned about the value of biodegradable organics and applied their knowledge in our compost experiment. The goal is to inform our immediate school community of environmental issues and to help wherever possible.
- Lina Mai
- NEST+m's Middle and High School Science and Sustainability teacher

The PTA newsletter of NEST+m Winter 2016 edition

- To read the article "Not Putting Up With Garbage" please go to..
- https://gallery.mailchimp.com/8f973df4eaba0131c6c8251f7/files/newsletter_winter16_v1b.pdf

Project planning- keeping it sustainable

- Collaboration with administration, teachers, School Food employees, custodial employees and parents was and is the key to making this a sustainable endeavor.
- Many emails and face-to-face meetings were held regarding executing the program and making it better and better. Having all parties realize that it “takes a village” to make it work is the most challenging part.
- Parent involvement is also very important in keeping the project sustainable. A signupgenius.com was created for parents to volunteer during lunch hours to gently guide the students as they do their jobs as Recycling Rangers. This has been very successful as the parents really enjoy interacting with the knowledgeable and enthusiastic K-5 students.

Collaborating with NYC School Food. It takes a village to make it all run smoothly.



NEST+m custodians are an integral part of the recycling program. They were initially skeptical of the program but are now very happy with the way the recycling is going, making their workload in the cafeteria less, and giving them more time to take care of the rest of the building.





NEST+m Green committee

Cafeteria recycling volunteers

In NEST+m's effort to become a zero waste school, we are reaching out to families to become an integral part of this goal. In January, NEST+m, under the guidance of Cafeteria Culture, launched this very exciting and already successful recycling program! We're looking for volunteers to help ensure the program continues to run smoothly. Our well-trained students will teach you how to sort if you have a question. With your help, NEST is sure to be a model for all NYC schools. Prepare to be inspired and amazed by the enthusiasm of the students!

To learn more about the program, please watch this Vimeo created by Cafeteria Culture.

<https://vimeo.com/141123680>

Please note there are two time slots per day. 10:30 to 12:30 and 12:30 to 2p. If your availability is not exactly these hours, no problem, we appreciate any time you can donate.

Location: NEST Cafe

Created by: Cynthia Wu

Date (mm/dd/yyyy)	Time (EDT)	Available Slot	Calendar View
04/18/2016 (Mon.)	10:30am - 12:30pm	Dates/Time (2)	<p>All slots filled</p> <p> Cynthia Wu</p> <p> </p> <p> Rebecca Shulman</p>
	12:30pm - 2:00pm	Dates/Time (2)	<p>1 of 2 slots filled</p> <p> Angela Xue</p> <p>Sign Up</p>
04/19/2016 (Tue.)	10:30am - 12:30pm	Dates/Time (2)	1 of 2 slots filled

[Submit and Sign Up](#)

Parent involvement is key to the success of this program. A sign-up sheet was created for parents to volunteer to assist the students during lunchtime recycling.

The lower school parents (K-5) are most enthusiastic to volunteer as they are interested to see what their young children are eating for lunch and how they're doing in general. Young children are also excited to see their parents at school.



The lobby at NEST+m has two recycling bins one for paper and plastics/metal/glass and a trash can. NEST also has recycling of crayons and markers, clothing, cell phones and electronics.



Proper labeling and placement is key to recycling success



Students assembled some boxes for paper recycling to place around the hallways of the school building.

Students plan to paint the brown compost totes with the NEST+m name and in bright colors.



Recommendations

Even with great training, the recycling program needs constant attention and recycling needs to be taken seriously and put into the curriculum and enforced by the administration and teachers. It must be part of the school's culture and become "second nature".

- If zero waste is the goal of NYC, every school needs to have a sustainability advisor that is well trained in how to execute a recycling program.

Recommendations: Getting better all the time

- 3rd grade student requested of the PTA president that at the PTA meetings, parents bring their own mugs instead of using styrofoam cups.
- Requests to School Food (SF) to eliminate the small ketchup packages were made and to install a dispenser instead. This request has been granted!
- Requests to SF to encourage bulk buying of cream cheese were made to again eliminate small packages.
- Requests to SF to eliminate food in plastic packaging were made – such as local cut apples and hamburgers and breakfast foods.

Recommendation:

“Planting the seed” for new ideas. Repurposing the recycleables from the cafeteria.



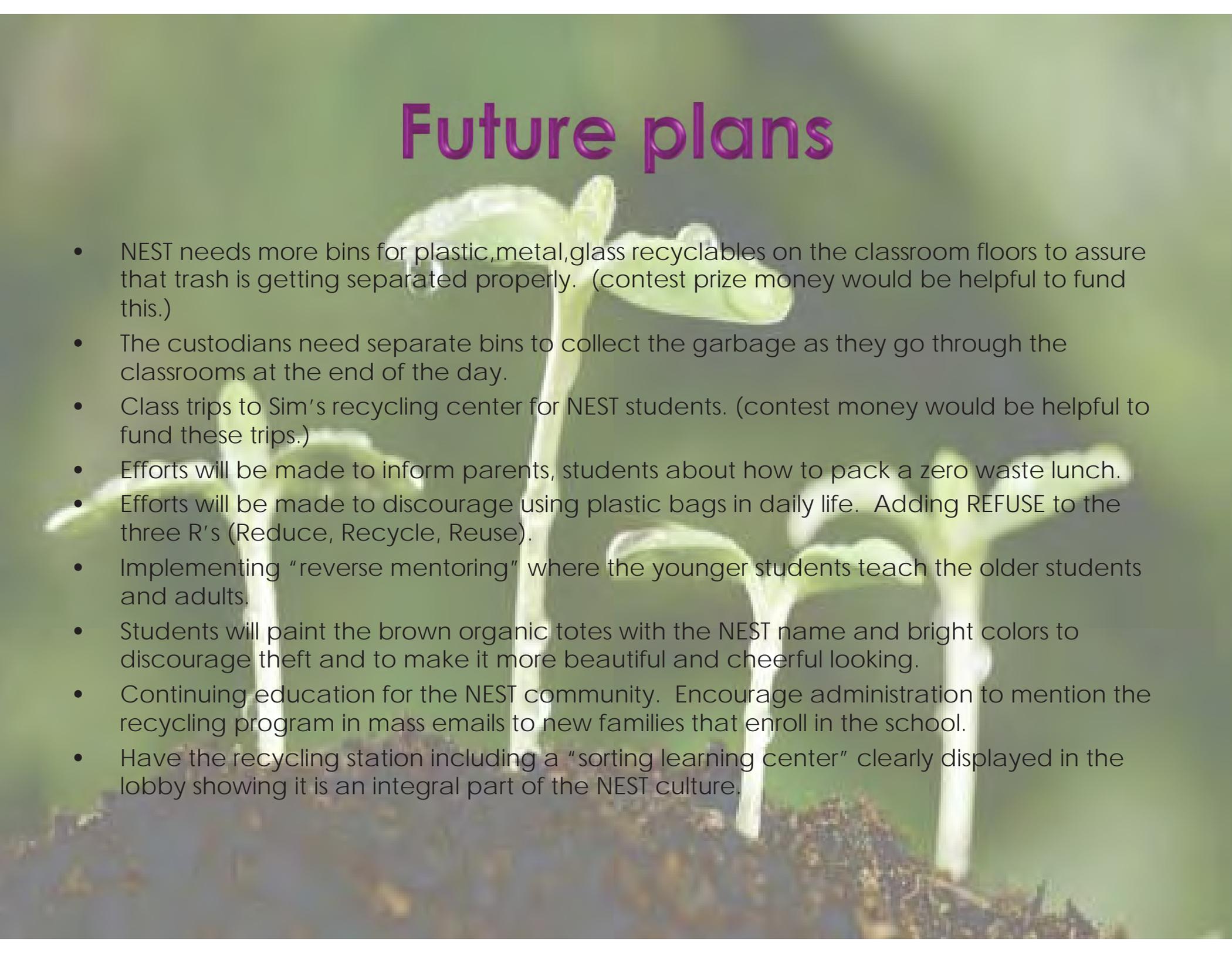
Recommendation: Visiting Sim's Recycling in Sunset Park, Brooklyn.



Future plans for NEST students and families to have class trips to Sim's recycling center. Where recyclables from four NYC boroughs end up and are sold for reuse.



Future plans



- NEST needs more bins for plastic, metal, glass recyclables on the classroom floors to assure that trash is getting separated properly. (contest prize money would be helpful to fund this.)
- The custodians need separate bins to collect the garbage as they go through the classrooms at the end of the day.
- Class trips to Sim's recycling center for NEST students. (contest money would be helpful to fund these trips.)
- Efforts will be made to inform parents, students about how to pack a zero waste lunch.
- Efforts will be made to discourage using plastic bags in daily life. Adding REFUSE to the three R's (Reduce, Recycle, Reuse).
- Implementing "reverse mentoring" where the younger students teach the older students and adults.
- Students will paint the brown organic totes with the NEST name and bright colors to discourage theft and to make it more beautiful and cheerful looking.
- Continuing education for the NEST community. Encourage administration to mention the recycling program in mass emails to new families that enroll in the school.
- Have the recycling station including a "sorting learning center" clearly displayed in the lobby showing it is an integral part of the NEST culture.