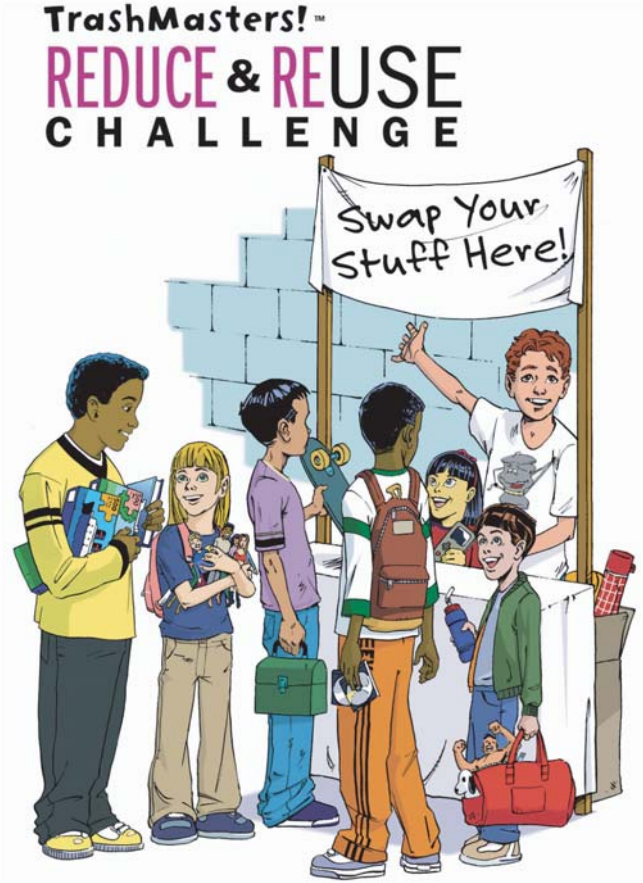


Elementary Division
Brooklyn Borough
& Citywide Winner

PS 46
E. C. Blum

2013 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 Waste Prevention, Reuse and Recycling
nyc.gov/wasteless

recycle more,
waste less!

2013 Golden Apple Awards
Contest Entry Judging Info

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

ID Info: 13007

School: E C Blum PS 46
Grade Division LM
Borough: K

☐ **Golden Shovel Award contestant**
(for borough Master School Composter)

School Population: total # 374
Core Group: **Total Participating:**

2013 Project Entries received for:

☐ **TrashMasters! Super Recyclers**

Received:

☑ **TrashMasters! Reduce & Reuse Challenge** 20 374

Don't Throw That Out! - Re-envisioning Trash

Received: 4/30/2013

On opening the doors to their brand new school building, PS 310K decided it was imperative for their students to learn the importance of recycling beginning on the first day of school. The school equipped each classroom and common area with labeled cans for garbage and recyclables. PS 310K also took great care to make sure that students learned how to properly sort cafeteria waste. Teachers incorporated recycling into lesson plans, especially Social Studies and Science. This has been a tremendous schoolwide effort, with support and participation from teachers and students alike.

☐ **TrashMasters! Team Up to Clean Up**

Received:

Prior Year Entries:
04:TU-hon;05:TU-city;06:RR-boro;08:RR-ru;13:RR-C

Current Prizes
13:RR-C

School Contact Information:

Phone: 718 834-7694
Address: 100 Clermont Av
Brooklyn 11205

Block&Lot: 3020450011
DOE Location: K046
DOE Bldg: K046

REQUIRED for Super Recyclers only:

Custodian: Angel Garcia

Contest Coordinator: Kathleen Jean-Jacques

Principal: Karyn Nicholson

Sustainability Coord: Marta Febos

Info Confirmed:

Printed: 6/26/2013

P. S. 46K E. C. Blum School
100 Clermont Avenue,Brooklyn, N. Y. 11205
Ph : (718) 834 -7694 Fax: (718) 243-0726
Karyn Nicholson, Principal
knicholson@schools.nyc.gov
Contest Coordinators: Kathleen Jean-Jacques, Art Teacher
Kjean-jacques2@schools.nyc.gov
(917) 971-6841
Beth Conard , Art Teacher
(718) 834-7694

Edward C Blum Elementary School (PS 46K) is a small Title I school with 374 students from pre-kindergarten through grade 5. Our current student body consists of 20 % English language learners. We offer special education , dual language and bilingual education programs. Due to space restraints created by a co-located school, we no longer have dedicated arts classrooms. We believe that the level of work our students are creating under these less-than ideal conditions is truly amazing , and hope you find it as inspiring as we do!

Contest Entry Info:
Brooklyn- Elementary Division
Don't Throw That Out ! - Re-envisioning Trash
Our entry is comprised of 2 main initiatives: reducing waste by reusing and re-purposing items destined for the landfill, and reducing consumption of packaging materials and environmental pollutants by replacing wasteful & toxic Classroom cleaning products with Do-it-yourself sustainanable Alternatives. Both initiatives are designed to develop Environmental stewardship, creative problem solving , teamwork, and the critical thinking necessary to envision solutions to contemporary issues on both a local and global scale.

Student Involvement:
Core Group : 20 *Student Participation : 374* *School Population: 374*

Implementation:

- **Why this?** What type of waste did you target for reduction, prevention, or reuse in this project? Explain why.

  Our goal was to reduce waste through creative re-purposing of a variety of materials. At school ,we targeted paper and cardboard (scraps and packaging). At home, we targeted paper bags, boxes and plastic containers. We also utilized a variety of materials such as buttons, beads and trimmings obtained through Materials for the Arts.

- **What did you do?** How did you reduce this waste?

  We reduced waste by keeping these items out of the wastebasket and into our children's hands to create works of art.

- **Project planning.** Your objectives, and the planning and organization that drove this project.

  Our overall objectives were to promote create problem solving and the ability to envision multiple possibilities despite limited resources. Our planning required flexibility and spontaneity as we were often working with items "rescued " from the trash bin with a cry of "Don't throw that out!"

- **Student involvement.** All student efforts to plan and implement the project. Include activities conducted by classrooms, cluster, grade, school wide, team, club, or afterschool program.

  Project activities were led by the Art teachers in collaboration with Classroom teachers in each grade. Student leaders promoted the project and organized their peers to collect and bring in re-usable items. The Art club utilized ribbons and beads from Materials for the Arts to create jewelry and keychains.

- **Collaboration.** Any collaboration with other schools, professionals, businesses, or community organizations on this project. Did you solicit donations or help?

  We utilized donated materials from Materials for the Arts in many of the projects.

- **Educational components.** Include learning standards met, lesson plans, and exemplary samples of student work.

This initiative addresses the Applied Learning Standards Below, with an emphasis on A1, A4, and A5, as well as the New York City Blueprint for the Arts and State and City Performance Standards for each integrated subject area.

THE APPLIED LEARNING PERFORMANCE STANDARDS
There are five performance standards for Applied Learning: A1 Problem Solving; A2 Communication Tools and Techniques; A3 Information Tools and Techniques; A4 Learning and Self-management Tools and Techniques; A5 Tools and Techniques for Working with Others.

Pre-K Celebrates The Seasons

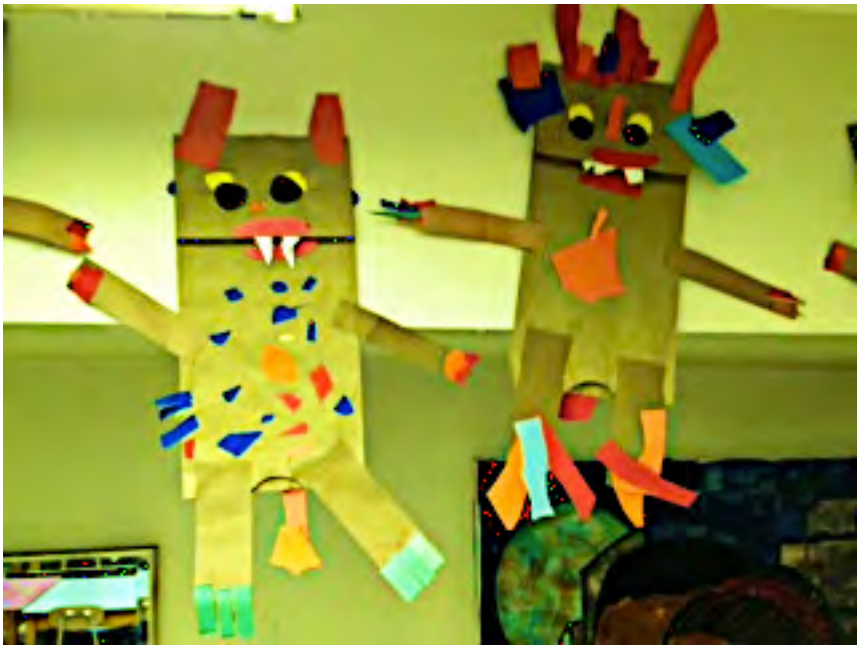
Old Socks Become Snow People

Plastic Bags & Paper Scraps Turn Into Butterfies!

Pre-k Box Art Community Helpers

Food boxes from our Lunchroom
transformed into a Fire Truck!

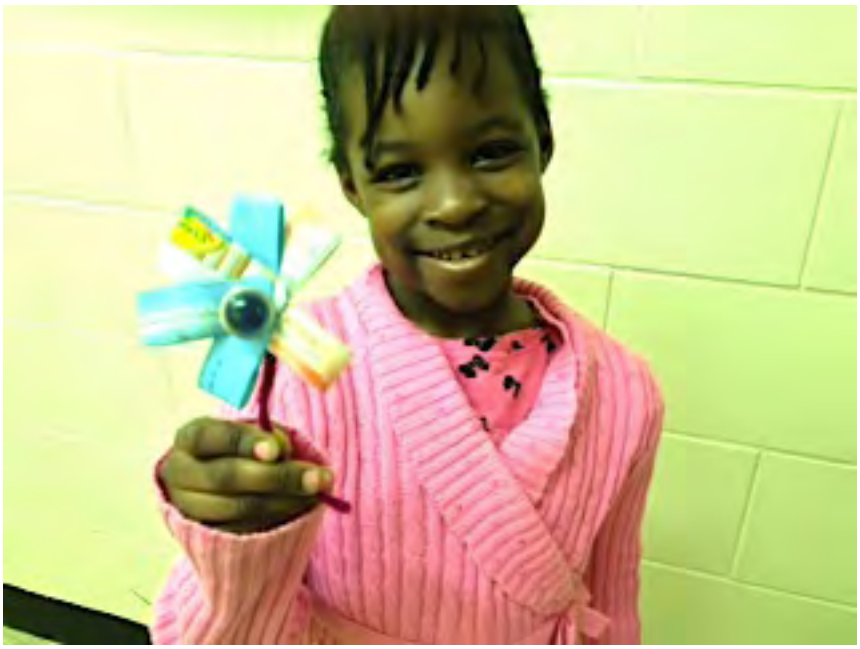
Kindergarten Artist and Author Study



Paper bag and scrap paper puppets inspired by
Maurice Sendak's "Where the Wild Things Are"

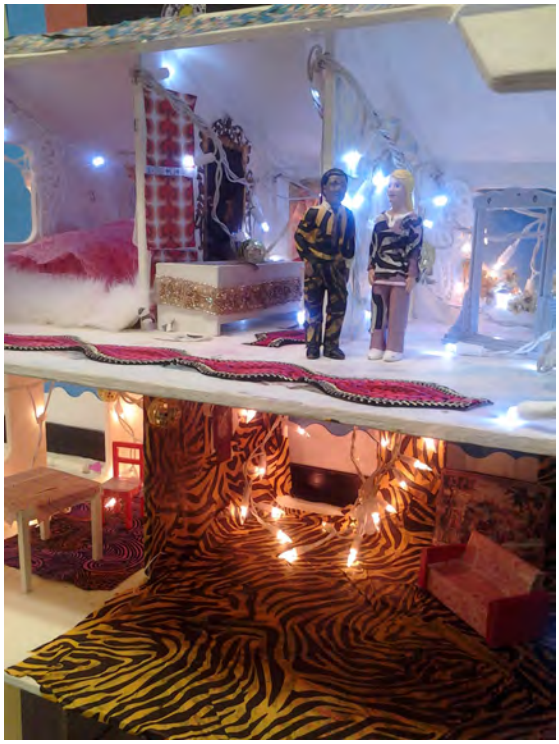
Breakfast trays transformed into relief sculptures
in the style of Louise Nevelson

Grade 1 From Trash to Treasure



Buttons from Materials for the Arts & old art supply catalogs become a precious gift for Mom !

Grade 2
Diverted from the Dumpster!



Installation Art in a Discarded Dollhouse

Paper scraps create a relief sculpture
in the style of Judy Pfaff

Tissue paper scraps are saved all year
for our Women's History Month Mosaic

Grade 3

Sustainable Shark Sculptures

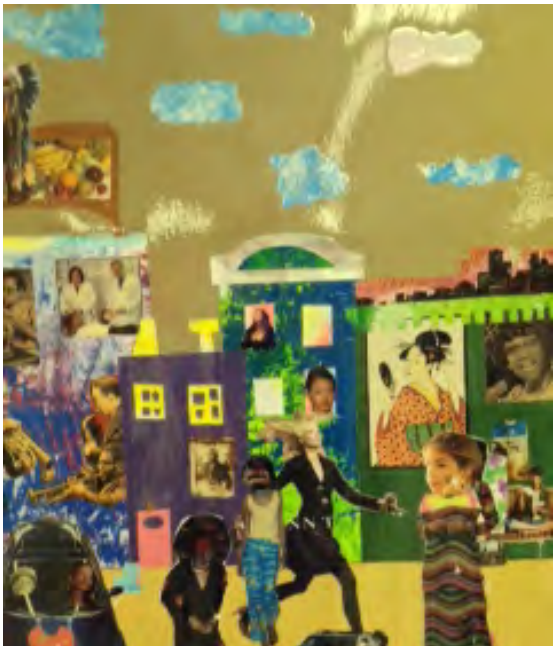
Boxes And Packing Material reclaimed from the trash create a vivid hallway environment!

Grade 4

Black History Box Art

Grade 5

Artist Study- Romare Bearden
Scrap Paper and Magazine Collage



Science Task Bundle-
Box Sculpture Bengal Tiger in its Habitat

Art Club
Fantastic Finds From Materials for the Arts
Become Fabulous Fashions!

Grandma's Clothespins Repurposed as Pins
& Refrigerator Magnet People

WASTE PREVENTION & REUSE PROJECTS

For each project you initiated, briefly describe and document the following:

IMPLEMENTATION

- Why this? What type of waste did you target for reduction, prevention, or reuse in this project? Explain why.

Packaging and potential environmental pollution.

- What did you do? How did you reduce this waste?

We focused on Do It Yourself projects implemented across the grades. Our DIY focused on commonly consumed cleaning products within the school community such as disinfecting wipes and spray surface cleaners. All of our DIY projects were carried into our students' homes with DIY information disbursed throughout the all school community.

- Project planning. Your objectives, and the planning and organization that drove this project.

The DIY part of our All School Community Waste Prevention and Reuse project was planned between cluster and classroom teachers partnering older students with younger learners. This approach allowed students to master and lead sustainability workshops school wide.
Our objective was multifold:

- To initiate an inquiry into both packaging and product waste.
- To raise awareness of the environmental hazards of both ingredients and packaging of commonly used products.
- To demonstrate easily accomplished solutions to these hazards.
- To provide motivation to reduce waste through documented financial savings with DIY projects.

- Student involvement. All student efforts to plan and implement the project. Include activities conducted by classrooms, cluster, grade, school wide, team, club, or after school program.

Older students, grades 3 through 5, worked with cluster and classroom teachers examining commonly used products in the classroom and researching solutions for waste reduction. This inquiry was conducted on a daily basis built into our enrichment period at the end of every day.
Older students worked with cluster teacher(s) pushing into younger grades to conduct DIY workshops.

Our DIY projects started with planning

- Promotion. Efforts to promote this project, such as announcements, memos, flyers, posters, letters, web pages, skits, songs, assembly programs, media coverage, or other special events.
- *
- Collaboration. Any corroboration with other schools, professionals, businesses, or community organizations on this project. Did you solicit donations or help?

MARP, Myrtle Avenue Restoration Project is working with PS46 to promote sustainability awareness. Our students will be leading DIY workshops at MARP's late spring Sustainability Festival in early June.

The Fort Green Association continues to be our partner with sustainability awareness through their energy efficient light bulb exchange program that they will be conducting with us during our future
Sustain-A-Mania Event.

- Educational components. Include learning standards met, lesson plans, and exemplary samples of student work.

The DIY projects were designed by teachers to address the newly introduced Common Core Standards. Projects were bundled into multiple disciplines including science and math, with product research and analysis and cost calculations.

For instance third grade students researched the potential environmental toxicity of bleach within the local ocean environment during their shark study. They used their English Language Arts skills to express their understanding. They then practiced division, subtraction, addition and subtraction with high place value numbers.

- PROJECT ANALYSIS

- What worked? What were the most successful aspects of this project?

Enthusiasm was very high for these projects, as nothing of this sort had ever been attempted before. It was a completely new learning experience.

- What didn't work? What were the least successful aspects of this project?

We did not get as much parent participation as we might like. We are going to work on that next year.

- Applicability to other schools. What advice would you give to other schools with similar populations who want to replicate your project?

Make sure that all recyclables and reclaimed items you collect are clean & dry to avoid attracting pests or molds!!!

The great thing about DIY projects is that they are simple and fun. Enthusiasm is great when cost savings analysis is done. Not only do DIY save you money children naturally wish to limit their environmental footprint and steward the environment.

- Measuring success. Describe how you measured the success of your project. Explain any impact on the students or community.

The measurement of success is if students and classroom teachers have continued the DIY projects and are avoiding unnecessary waste. The answer to that is yes so far this school year. Wherever we have introduced the DIY projects the students continue to replenish the environmentally safer products with DIY alternatives.

- Future plans. How would these prize funds be used to further enhance your school recycling program, waste prevention initiatives, or beautification projects?

We would use any prize money to conduct trips to Materials for the Arts to look for more packaging materials and general recycling inspiration.

We also would like to visit local artists and studios that use repurposed materials for their art.

We would use the funds to expand the learning components of the DIY projects through intra-school product placement and marketing. We would like to create a PS46 DIY product line complete with a logo and product labels.

Disinfecting Wipes Ingredients
&
School Year Savings

Clorox Wipes Ingredients:

313 gallons Hexoxyethanol

8 gallons Alkyl C12-18 dimethylbenzyl ammonium

8 gallons C12-14 Alcohols Ethoxylated Proproxylated

2 gallons Citric acid is a natural acid, used as a builder in laundry detergents, dishwashing products, and hard surface cleaners. It is effective in cleaning soap scum and mineral scale deposits left by hard water on fixtures such as toilets, bathtubs and sinks.
Fragrance

8 gallons Isopropanol alcohol

8 gallons Isopropyl alcohol, also known as isopropanol, is used as a solvent in glass and all-purpose cleaning products. Its antimicrobial properties make it useful in disinfecting products as well.

4 gallons Sodium Bicarbonate

188 pounds plastic packaging

DIY WIPES Ingredients & School Year Use

- Sturdy paper towels
- Water
- Container that is large enough to fit part of a paper towel roll in
- Serrated Knife
- Something to cut a 1/2″ hole through plastic (a 1/2 inch drill bit worked well)
- Measuring cups

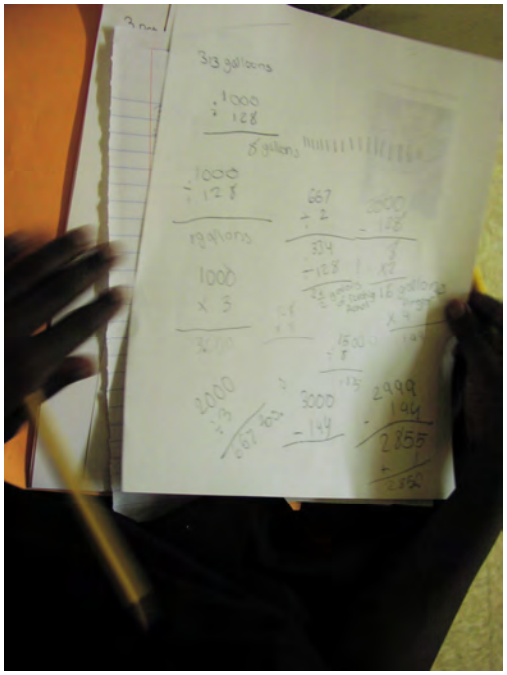
General Cleaning Surface Recipe:
* 1 1/2 cups white vinegar
* 1 1/2 cups water

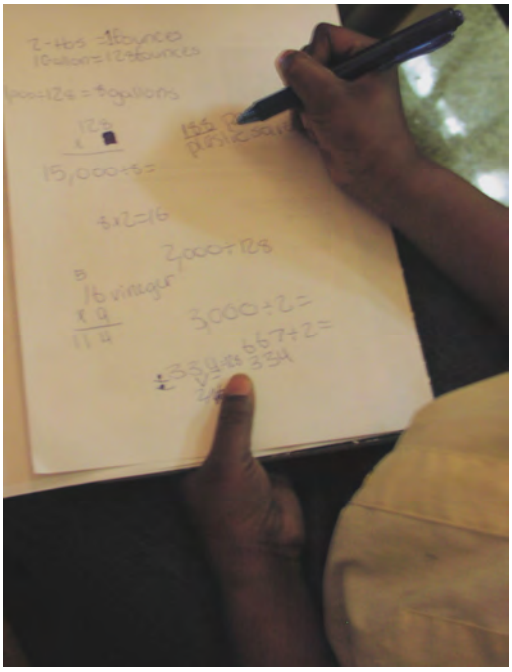
1.5 cup
x 1,000
15,000 cups vinegar

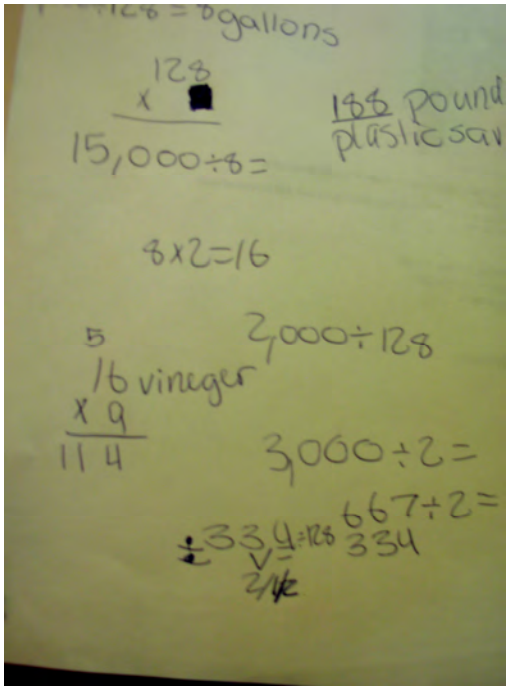
We figured we have about 30+ different rooms using about 3 packs of wipes per month. We averaged about 1,000 packs of wipes per school year. We converted all the amounts and multiplied and divided where needed. These are the pollution and plastic packaging savings.

We also looked at the actual dollar savings. We want to put that money into promoting awareness of DIY choices.

$2,856 in savings ☺


313 gallons
1000
÷ 128
8 gallons
1000
÷ 128
1000
x 3
667
÷ 2
334
÷ 128
2000
÷ 3
3000
- 144
2999
- 144
2855


2-tbs = 1 ounces
10 gallon = 128 ounces
128
x
15,000÷8=
8x2=16
2,000÷128
16 vinegar
x 9
114
3,000÷2=
667÷2=
334


128 = 8 gallons
128
x
15,000÷8=
188 pound
plastic sav
8x2=16
2,000÷128
16 vinegar
x 9
114
3,000÷2=
667÷2=
334

Measurement		Equivalent
1 Tablespoon	=	3 Teaspoons
1 Fluid Ounce	=	2 Tablespoons
1 Cup	=	8 Ounces
1 Pint	=	2 Cups
1 Quart	=	2 Pints
1 Gallon	=	4 Quarts
1/4 Teaspoon	=	1.25 Milliliters (mls.)
1/2 Teaspoon	=	2.5 Milliliters (mls.)
1 Teaspoon	=	5 Milliliters (mls.)
1 Tablespoon	=	15 Milliliters (mls.)
1 Fluid Ounce	=	30 Milliliters (mls.)
1/4 Cup	=	60 Milliliters (mls.)
1/3 Cup	=	78 Milliliters (mls.)
1/2 Cup	=	118.2 Milliliters (mls.)
1 Cup	=	236.5 Milliliters (mls.)
1 Pint (U.S.)	=	473 Milliliters (mls.)
1 Pint (U.S.)	=	28.875 Cubic Inches
1 Pint (U.S.)	=	28.875 Cubic Inches
1 Pint (U.S.)	=	16 Ounces
1 Pint (U.S.)	=	0.4732 Liters
1 Quart (U.S.)	=	946 Milliliters (mls)
1 Quart (U.S.)	=	4 Cups
1 Quart (U.S.)	=	32 Ounces
1 Gallon	=	128 Ounces
1 Gallon (U.S.)	=	3.79 Liters
1 Gallon (U.S.)	=	3785 Cubic Centimeters
1 Gallon	=	4 Quarts
1 Gallon	=	8 Pints
1 Liter	=	1000 Cubic Centimeters
1 Liter	=	1000 Milliliters (mls.)
1 Liter	=	1.057 Quarts
1 Liter	=	0.264 Gallons (U.S.)
1 Liter	=	1.76 Pints
1 Liter	=	35.2 Fluid Ounces

DIY Orange Enzyme

First we decided we need 1 and 2 liter jugs and bigger for repuprposing.
PK, 2nd and 3rd Grades decided to work together.

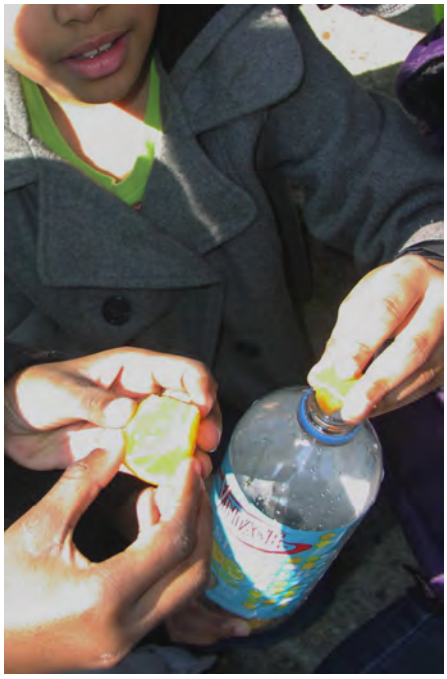
We collected and sorted the containers.

We followed the recipe closely.

2-liter Plastic Bottle
100 g (or about 1/2 cup) Brown Sugar
1 teaspoon yeast (optional, to speed up process)
1 liter Water
300 g (or about 2 cups) Lemon and/or Orange Scraps
Marking Pen

Pour the brown sugar into the 2-liter plastic bottle.

Cut the lemon and orange scraps (I only had lemons on hand) into pieces small enough to fit the mouth of the bottle.



Put them in the bottle.

Clean up.
We are marketing and selling our Orange Enzyme cleaner in partnership with the Myrtle Avenue Restoration Project.

Third Grade will be leading a DIY Workshop this June at our patner organization's, MARP, DIT festival in June

.

PK and 2nd Grade will lead family DIY workshops at the PS46 Sustain-A-Mania Festival also in June.

DIY Recycled Water Bottle Bangle
With Third Grade

First collect personal sized water bottles that are headed for the garbage

Next, with a pair of good scissors but the bottle into rings of at least one inch in thickness (depending on how wide you want your finished bangle to be.

Wrap your ribbon around the ring tightly.

We used a variety of ribbons we got from our partner organization, Materials For The Arts.

Mix and match! Have fun.

Bring Your Clean Empty Spray Bottles To Be Recycled

We are going to use them for MARP's (Myrtle Åvenue Restoration Project) "Green" Event – in June when we will be conducting DIY workshops.

Make sure they have all their working parts and are clean please. We also need clean 2 liter bottles.

Leave with Ms. Jean-Jacques or Ms. Conard in 1-118, "The Art Studio".

Citrus Enzyme Cleaner Recipe

2-liter Plastic Bottle, 1/2 cup brown sugar, 1 teaspoon yeast (optional, to speed up process), 1 liter Water, 2 cups Lemon and/or Orange Scraps, marking pen.

- Pour the brown sugar into the 2-liter plastic bottle.
- Cut the lemon and orange scraps into pieces small enough to fit the mouth of the bottle. Put them in the bottle.
- Add yeast.
- Add one liter of tap water into the bottle.
- Tightly screw the cap so that no liquid falls out and dissolve the sugar by shaking the bottle for about 30 seconds.
- For the first couple of weeks, give the bottle a shake once a day, making sure to leave the bottle cap loosely fastened to avoid gas build-up (ie. Explosions!) from the fermentation process.
- Using a marking pen, write the date on the bottle.
- It will take three months for the ingredients to ferment. (Or two weeks if you add the yeast.)
- add half a cup of enzyme cleaner to one liter of water and mix thoroughly. (Use more if you prefer a stronger concentration.)

dishes and laundry (use 1/4 cup of enzyme), washing bathrooms and toilets. grime comes off easily (1 part enzyme to 10 parts water), clean

vegetables and fruits (1 part enzyme to 10 parts water), natural insect repellent (use undiluted) for ants, cockroaches, mopping floors (1 part enzyme to 20 parts water)

Bring Your Clean Empty Gallon and Half Gallon
Plastic Containers To Be Recycled

We are going to use them for The Myrtle Avenue Restoration Project's, MARP,"Green" Event this June –
Sustain-a-mania. We need half gallon and gallon jugs and containers such as large Orange Juice or liquid laundry soap containers. Make sure they have their lids and are clean please. We will use them to make Do It Yourself "sustainable" laundry soap costing 17 cents a gallon.

DIY Sustainable Laundry Soap

3 tbsp borax, 2 tbsp washing soda, 2 tbsp Dawn dishwashing liquid
Put ingredients in a one gallon jug. Pour 4 cups very hot water into jug. Swirl contents until dissolved. Let liquid cool then fill to top of gallon jug with cold water. Use ½ to 1 cup per load.

We are also looking for recycled spray bottles.
Leave with Ms. Conard or Ms. Jean-Jacques in 1-118, "The Art Studio"