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Team Up to Clean Up

Elementary Division
Manhattan Borough
& Citywide Winner

PS 40M
Augustus Saint-Gaudens

NEW YORK CITY DEPARTMENT OF SANITATION

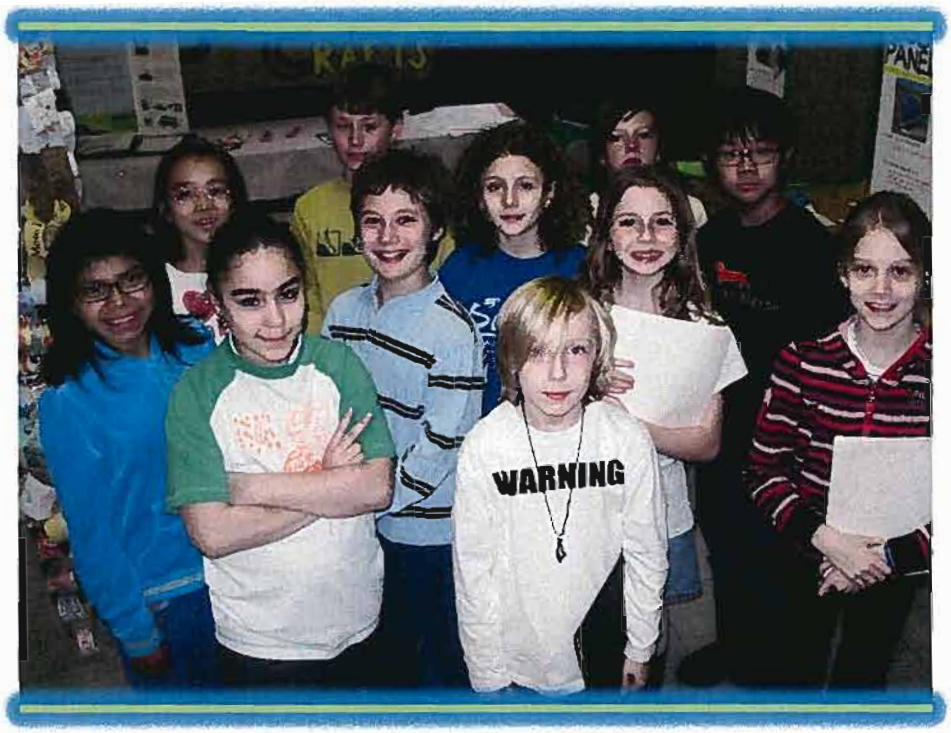
2010 GOLDEN APPLE AWARDS

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, Michael R. Bloomberg, Mayor
Department of Sanitation, John J. Doherty, Commissioner
Bureau of Waste Prevention, Reuse and Recycling, Robert Lange, Director

John J. Doherty, Commissioner
June, 2010

PS40's
SuperGreenEcoTeam



TEAM UP TO CLEAN UP

2009-2010

The PS40 2009 – 2010

Super Green Eco Team

SGET Inspector	Home Room
Liam Gordon	5-314
	Ms. Aponte
Daniel Kessler	5-316
	Ms. Cheung
Audrey Busheager	5-316
	Ms. Cheung
Wesley Chow	5-316
	Ms. Cheung
Gabrielle Kuker	4-317
	Schor/Reilly
Erin Suh	4-317
	Schor/Reilly
Penny Retica	4-317
	Schor/Reilly
Sam Fisher	5-311
	Ms. A & Ms. B
Jack Kettler	4-313
	Will Owen
Sophie Scherer	4-313
	Will Owen
Lukas Yurasits	4-315
	Ms. Agosta
Daisy Torres	4-315
	Ms. Agosta
Teddy Lowen	4-315
	Ms. Agosta

Wednesday April 28, 2010

PS40 Eco Team
319 East 20th Street
New York City, 10003

Dear Department of Sanitation,

As our school's Eco Team continues to grow, we have started to think more about long-term projects that would benefit our school in the future. This year, we are starting our first long-term project. That project is the installation of solar panels.

We think that this is a vital step in becoming a truly green school. We asked an expert in the field how much we could do with solar energy. He estimated that it would be able to power all of our lights in the building and our 28 desktop computers. This is why we are really excited about this project.

When we first entertained the idea of installing solar panels, we knew that we couldn't do it alone. We are hoping to get financial support from an organization to help make this dream a reality. At the moment, we are in the process of finding such an organization.

When we first set our goals, three years ago, our goal was to improve the school's recycling. We have far exceeded our own expectations. We have not only improved the school's recycling, but we have made caring for the earth a part of day-to-day learning at PS40. We have embedded it into the curriculum and the lives of the students. The world is a big place. We can't fix it all, but what we can do is join together and do what we can. That is our goal.

Sincerely,

Daniel B. Kessler

Daniel B. Kessler
Eco Team Member Since 2007

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The Year At A Glance

The 2009 – 2010 Super Green Eco Team began the school year with some ambitious goals. Our first meeting, with all fourteen 4th and 5th grade students and both parent leaders, was in October. It was clear from the start that these students were serious and wanted to work hard to make a difference at PS40 and in the world. We discussed some goals for the year and how we would go about achieving these goals.

1. It was important to everyone that PS40 would continue to recycle and reduce & reuse in the classroom, lunchroom and offices. For the past two years PS40's efforts to reduce, reuse, and recycle have been stellar and we agreed to work hard to ensure that those standards would continue. The following are the steps we took to achieve this goal.

- Each SGET member was assigned two classrooms and/or offices for which they would be responsible

- The SGET members needed to instruct their classes and/or administrators about their responsibility to reduce, reuse & recycle by using reusable water bottles, microfiber cloths, and scrap paper bins and keeping their garbage and recycling bins properly sorted.

- The SGET member inspected their classroom and/or office once a month.

- Each time a class or office passed inspection they were awarded a badge, which was posted on the front of their door.

2. In an effort to keep the whole school involved and aware of the activities of the SGET, we decided that we must maintain and update the Eco Team bulletin board in the cafeteria. The following are the steps we took to achieve this goal.

- Two SGET members were chosen to be responsible for posting eco ideas, projects and activities on the bulletin board.

- The school wide competition to create this years SGET logo took place on the bulletin board. The winning logo was printed on 5" X 7" cards, which served as badges for everyone who passed inspection.

3. The relationship between the SGET member and the classes they inspect is very important. The SGET member is not only their inspector but also their liaison to the Eco Team and all things eco at PS40. The following are the steps we took to strengthen this relationship.

- Each SGET member got a folder dedicated to each classroom for which they are responsible.

- If a class did not pass inspection, the SGET member took the time to instruct the class and/or teacher why they did not pass, what changes needed to be made in order to pass inspection next time and did their best to inspect once more during that particular moth so the class could get a badge.

4. A primary focus of this year's SGET was to fulfill the requirements of the DOS **TEAM UP TO CLEAN UP** challenge. It was agreed upon that this would be a good way to concentrate our energies in a productive direction. The following are the steps we took to achieve this goal.

   - We began each meeting by brainstorming for ideas of places around our school and community that needed cleaning up or beautifying in general.

   - Each idea was discussed and deliberated about and it was determined whether or not it would actually come together as a viable project. Eventually four projects were voted for (**Roof Garden, Solar Panels, Mural, Leaf Composting**) and a team leader was chosen for each.

   - As a large group and in our smaller groups we began to brainstorm ideas about how to actually "team up" and "clean up".




5. Our annual Earth Week celebration must reflect all the work the SGET is doing and we must include the whole school as much as possible.

6. With such a full schedule of work, we all promised to:
   - Be as organized as possible
   - Keep Super Green Eco Team parents involved
   - Attend as many SGET meetings as possible
   - Post all SGET meeting dates
   - Communicate with all teachers and administrators
   - Always meet in the same room
   - Have a specific agenda for each meeting
   - Work hard!

A SUMMARY OF THE **TEAM UP TO CLEAN UP** PROJECTS

Roof Garden, Solar Panels, Mural, Leaf Composting

PROJECT NAME: Roof Garden

PROJECT DESCRIPTION: Beautify the 'playground roof' by installing garden boxes and planting flowers and vegetables in them.

ORGANIZATION WITH WHOM WE TEAMED UP: To build the four - 3' square free standing boxes, Michael Miritello and Adam Lesser of Brooklyn Mammal used reclaimed wood. Chris and Lisa Goode of Goode Green NYC donated the soil and sage planting advice. Elizabeth Miller from The Mauser Group donated the 55-gallon, green rain barrel to help water the plants.

STUDENT INVOLVEMENT: The student members of the SGET came up with the idea, scouted the location and solicited the donation of the rain barrel from The Mauser Group. Because every student who attends PS40 plays on the 'playground roof', they have all been aware of the Roof Garden's progression and have been anxious to see what is going to be planted. We plan to have one grade per year be responsible for the Roof Garden, beginning with the fifth grade.

COMMUNITY INVOLVEMENT: When the call went out soliciting every PS40 man, woman, and child to help carry the soil up the four flights of stairs, the response was overwhelming. Not only did over 40 families respond (many of whom the SGET never had contact with before) but local public high school students and parochial school student volunteered as well (they received community service credit for their work).

Everyone who participated in the 'soil hike' has become invested in the project. A new committee has been formed, the PS40 Garden Club. Under the auspices of the SGET the Garden Club will manage the planting and care of the Roof Garden boxes.

PROJECT NAME: Solar Panels

PROJECT DESCRIPTION: With an eye towards decreasing our carbon footprint we decided to look into the possibility of an alternative power source for PS40. Solar Panels were the most popular suggestion.

ORGANIZATION WITH WHOM WE TEAMED UP: We teamed up with scientist and graduate student, Paul Hansen, who came to PS40 to discuss the possibilities of Solar Panels. After inspecting the school for Solar Panel possibilities and evaluating other possible alternative power sources, Heather Faulding, from the architectural firm F2 Architecture, spoke with to the SGET and shared her results. We are teaming up with the Manhattan Comprehensive Night & Day High School, whose students have made solar panels and will come to PS40 to talk with the SGET about their experiences.

STUDENT INVOLVEMENT: It is currently the fourteen student members of the SGET who are actively involved in the Solar Panels project, though during our Earth Week celebration over 35 students from kindergarten through fifth grade signed up to be a part of the Solar Panel team.

COMMUNITY INVOLVEMENT: As the Solar Panel project grows, so does our community's involvement. Because this is really a research project at the moment we are inviting the all members of our community to join.

TIME EXPENDED: The Solar Panel project was voted as one of the SGET projects in January 2010 and has been on the table ever since. It is a the 'research' project, so sometimes the more 'hands on' projects take precedent.

EDUCATIONAL OPPORTUNITIES: The students were given estimates for the possible power savings for not only Solar Panels, but for new florescent bulbs, and new window blinds. The SGET also learned that there are financial incentives available to schools that make these kinds of changes. The Night & Day High School students will challenge our SGET to look at and understand this technology.

PROJECT NAME: Murals

PROJECT DESCRIPTION: Make the exterior of the 19th Street side of PS40 less dreary and desolate and add some color to the 'playground roof'.

ORGANIZATION WITH WHOM WE TEAMED UP: We have teemed up with graphic designer, Bonnie Cummings of bmc Designs, to help us come up with a design. We are still working who find the artist(s) who will paint these murals.

STUDENT INVOLVEMENT: Every member of the SGET was an integral part of the making of the auction collage, which will be the inspiration for the mural. They are also the people who will evaluate the artists and will choose who will 'get the job'.

COMMUNITY INVOLVEMENT: Nineteenth Street between 1st and 2nd Avenue is a very residential block. Across the street from the site of our proposed mural is a Mennonite Fellowship Hall, and the pastor, Sylvia Shirk Charles, offered to help in anyway she and her congregation could.

TIME EXPENDED: We have spent many meetings discussing the murals. We hope to have the mural completed by the end of the 2009-2010 school year, so we still have a lot of work to do in the next month or two.

EDUCATIONAL OPPORTUNITIES: We are converting a vertical (3' x 1') image into a horizontal (50' x 5') image. The calculations are interesting. We also much figure out how much pain we will need. We will consult the artist and the head custodian about what kind of paint is appropriate.

PROJECT NAME: Leaf Composting

PROJECT DESCRIPTION: Clean up our local community park, the Stuyvesant Square Park, by clearing and composting the dead leaves.

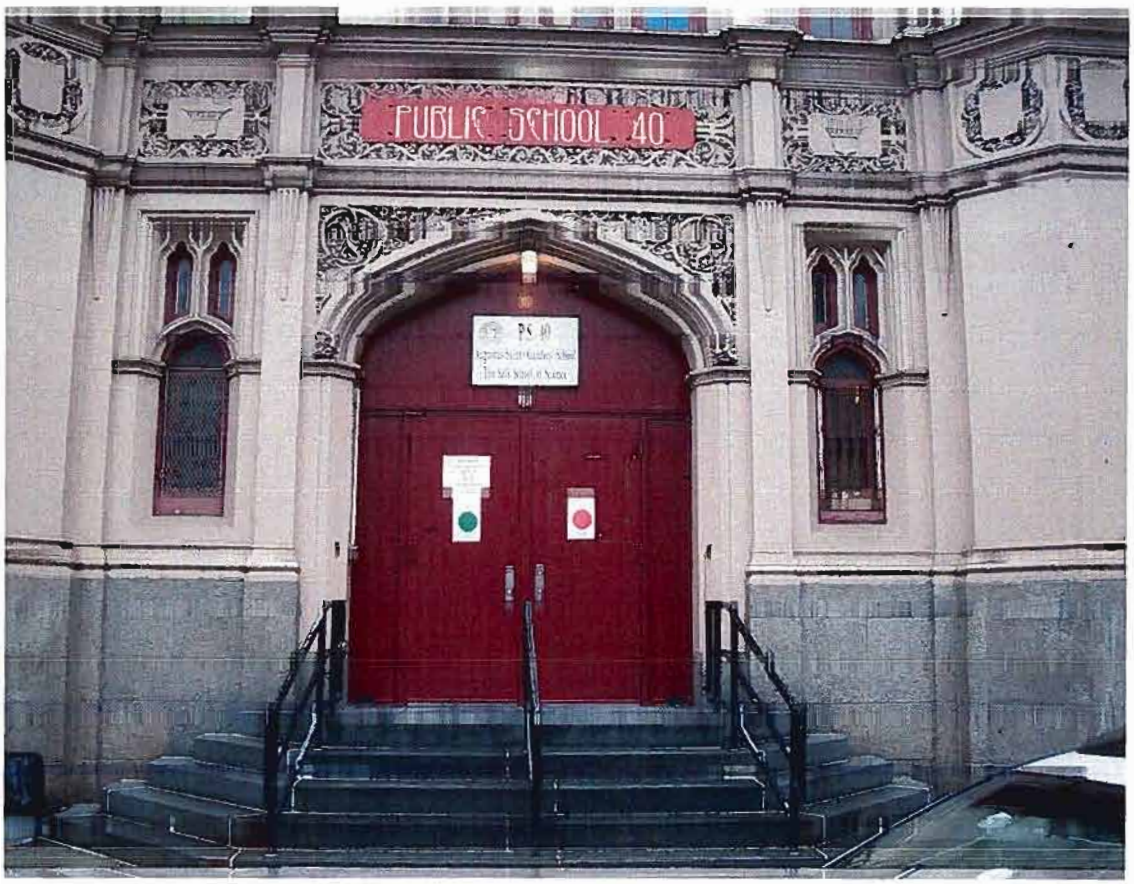
ORGANIZATION WITH WHOM WE TEAMED UP: We could not have done this project without the enormous support from Gosha Mosiej, the NYC Dept. of Parks head gardener for the Stuyvesant Square Park. We also teamed up with the Stuyvesant Square Community Alliance's Phyllis Mangeles who helps coordinate the volunteers who work in the park. Our local hardware store, Town and Village Hardware, partnered with PS40 by donating several hundred feet of chicken wire.

STUDENT INVOLVEMENT: All PS40 students were invited to participate in the Leaf Composting project, but it is primarily the fourteen SGET members who are the stewards of the composting. Each SGET member was given gardening work gloves and access to the park and within the gates to maintain the compost bins, which they created.

COMMUNITY INVOLVEMENT: The NYC Department of Parks is ultimately responsible for Stuyvesant Square Park and they help in the composting project as well. Stuyvesant Square Park is an integral part of our community. PS40's SGET and Art Squad members were asked to participate in the Stuyvesant Square Park Alliance's Earth Day celebration on April 24th. This gave us an opportunity to share the work we've done in the park and invite others to help us. Each compost bin is labeled with the information about the SGET's work here.

TIME EXPENDED: The Leaf Composting project began in October as we organized our first field trip. On that field trip we learned about composting and built 4 chicken wire bins, as per Gosha's instruction and raked and raked and raked and finally filled our bins with dried leaves. Periodically, over the next six months students and their families have gone to the park, during their free time, to rake the leaves and stir up the compost bins. Actual composting has taken place since October.

EDUCATIONAL OPPORTUNITIES: The SGET members have had the opportunity to actually see composting happen, and that has been the greatest educational experience. But there have been others as well, the math involved in figuring out how much chicken wire we would need for six – four feet in diameter bins was a challenge, and after much trial and error, we eventually figured it out.



ROOF GARDEN

PROJECT: Roof Garden

THE PROPOSAL

The PS40 roof has a spectacular New York Cityscape playground on it. Weather permitting, students in grades Pre-K through 5th, make weekly visits to relieve themselves of their pent up energy. Visits to the roof are something they look forward to every week. When the SGET members were talking about different areas that could use some 'beautification' the roof area kept coming up.

We discussed what the roof looked like now. It was agreed upon that it was clean and orderly and there was nothing actually wrong up there. The playground equipment was fairly new, modern, and fun. The ground was basically clean, as were the walls, but the team all agreed that it could use some help. That ~~is~~ IT wasn't 'warm' or 'colorful' or 'beautiful'.

So some brainstorming began. Many ideas were thrown around- pictures, mural, plants, garden etc. The students kept coming back to the idea of a garden. In 2008 PS40 was awarded a grant to install a Green Roof, but engineers from the Department of Education concluded that part of the roof would not be approved for the weight of a Green Roof. The kids wanted to revisit this idea. They wanted to find a way to have a garden without such a big weight load- and they came up with the idea to have garden boxes in which they could grow all kinds of plants, including flowers, vegetables, herbs and more.

THE GARDEN BOXES

In fall of 2009, the SGET assembled on the roof to discuss the intended location of the garden boxes and the size of the garden boxes that we would get. We decided on four 3x3 feet raised garden boxes that would fit in a 10x10 feet corner area beside the playground, this would be big enough, yet still manageable.

In the area they chose there is also a picnic table and bench close by. The idea was that the garden would be it's own 'area' yet viewable while the students were playing or sitting. The SGET researched garden boxes online and found some beautiful boxes that would fit perfectly in the space on the roof that had been designated. We discussed the costs, both financial and environmental, that buying these garden boxes from a catalogue would be. The eco-footprint, (because of packaging, transportation, energy used, etc.) was more than we though was appropriate. One of the team's parents suggested we find a local company to make them, we live in New York City after all, and that is how the garden boxes ended up being built, purchased, and delivered by the local Williamsburg design team of Brooklyn Mammal (www.brooklynmammal.com).

Brooklyn Mammal is a new company created by two furniture designers, Michael Miritello and Adam Lesser. All of their designs are made with salvaged material such as hardwood shipping palettes, pine rafters, wood shop cutoffs, etc. and transformed into contemporary and sustainable furniture. The garden boxes that were made for the PS40 roof garden are made from reclaimed wood from a deck that was being torn down. Recycled wood!

THE DIRT

At 8am on Saturday, April 10th, 2010 over thirty PS40 parents, students, friends, community members and SGET members came to the school to wait for the arrival of Chris and Lisa Goode, of Goode Green (www.goodegreennyc.com). Chris was coming with 10 garbage cans full of dirt in the back of his pick up truck. Everyone who came that morning would have an opportunity to help to carry some soil up (all 4 floors) to the roof. Goode Green teamed up with PS40'as SGET a few months before and committed to donate all the soil we would need.

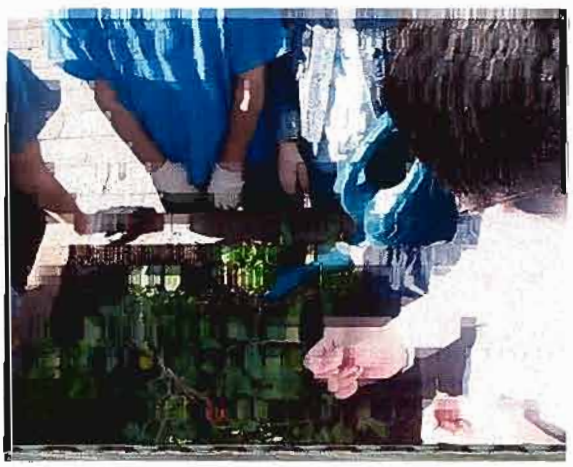
Goode Green is a green roof design and installation company whose donation of the soil made PS40 Roof Garden a reality. Goode Green is made up of Chris and Lisa Goode, and their company has installed many green roofs all over NYC, including a 6000 square foot working organic farm atop a warehouse in Greenpoint, Brooklyn as well as green roofs for many hotels and private residencies.

It was a beautiful crisp sunny Saturday morning when the dirt arrived. Everyone was ready. Among the many volunteers, we had two high school students clocking community service hours for their school. They were the first to arrive and took up the first garbage bucket. Step by step, up went the dirt. It went faster than we had anticipated. When all the soil was on the roof, Chris taught the kids how to line the boxes with the two different kinds of materials he brought – a felt like product and an egg carton style fabric. Then he had them layer the different soils, a recipe sure to invoke healthy plants!

THE RAIN BARREL

In early spring, while discussing the Roof Garden boxes, we tried to think of all the potential problems we might face. Aside from getting the garden boxes and soil up the four flights of stairs, How will we get water on the roof? Will someone have to carry it? How many buckets full of water will we need? How heavy is that? Someone mentioned rainwater. Won't the rain water the garden boxes? But what about when it's sunny and there is no rain? Many questions were flying around.

It was decided that we should try to collect the rain. But in what should we collect it? We all did some research and eventually found a company that made rain barrels. Barrels actually made to collect water for purposes such as ours. SGET member, Erin, volunteered to contact the company to ask about their barrels. She brought it up to the team that we could buy one and it was suggested that she ask The Mauser Group if they would be interested in partnering with PS40 and donate the barrel. Erin sent a very thoughtful and concise email to Elizabeth Miller at The Mauser Group to which Elizabeth promptly responded that they would love to partner with PS40 in our efforts to beautify our roof. Within a week she delivered a beautiful bright green 55-gallon recycled plastic rain barrel free of charge. This particular exchange has been a real highlight of the SGET's efforts this year.



The SGET team is wondering how much rain can be collected in a day, a month, and a year. We plan to make a monthly chart to track it.

THE FUTURE

The SGET has great plans for this fertile ground. The team is excited!

Erin wants to grow strawberries. They are talking about growing vegetables to harvest and eat in the cafeteria. They are thinking abut what to grow, where to get the seeds and seedlings, planting, harvesting, and eating! There is even talk of staging their own 'green market' sale (their version of a 'bake sale'). We hope to get the 'green market' sale underway before the end of the school year. In the meantime, the kids must figure out what plants will sell, how to price the products (plants), and calculate the sales. The students want to know, do they need to collect sales tax?

There were many discussions on what could be planted now and when we will have to start next year. This is an exciting, multi-faceted, project that requires the kids to learn on many levels. It is exciting not only for the SGET but also for the entire school.

TEAM-UP TO CLEAN-UP

PROJECT PROPOSAL FORM

Project Name: Roof Garden

Project Managers: Teddy - writer — 4-315
SGET Member name — Classroom

Project Managers: Lukas + Erin — 4-315 / 4-317
SGET Member name — Classroom

1. Explain what we want to do:

We want to make the roof greener and ecoer. So we want to put plants at the roof, and that would make the roof greener and mayber make the air cleaner. Also to make it beautiful for the children who play there everyday

2. Why is this project necessary, what needs to be changed:

It's necessary because we want to make the roof beautifided. And more eco. We need to plant the plants in the boxes and decide where to put them.

3. What do we need to do to make the project work:

a. we need boxes

b. we need Soil

c. we need a water Sarce

d. chose plants

e. plant the plants and

4. What are the steps needed to carry out the project:

1. bring in boxes
2. put in Soil
3. put boxes in place
4. put seeds in
5. put water Sarce in
6. tend the garden

5. Draw pictures, take measurements, and take photographs of the location in which the project will take place. (separate sheet of paper)

6. List people, stores, companies who can help the project:

i. goode green - Dirt

ii maussers - water collecter

iii Town and village hardware - gloves

iv Home depot

v Lukas's parets - gardners

vi

vii

7. How much will it cost?

We'll have the Stuff free because we have a grant from maussers. We are working on getting everything donated.

8. List the things that will need to be bought:

A. watering can

B. plants

C. Soil

D. tools and garden supplies

E. water collection bin

F. worms ?

G. planting boxes

9. Draw pictures of what the changes will look like. (separate sheet of paper)

10. Will we be able to do the project?

yes, it's half way there. the planters are there. the water collection bin is there and the dirt is comming tomorrow April 10, 2010

Key

1 = beach

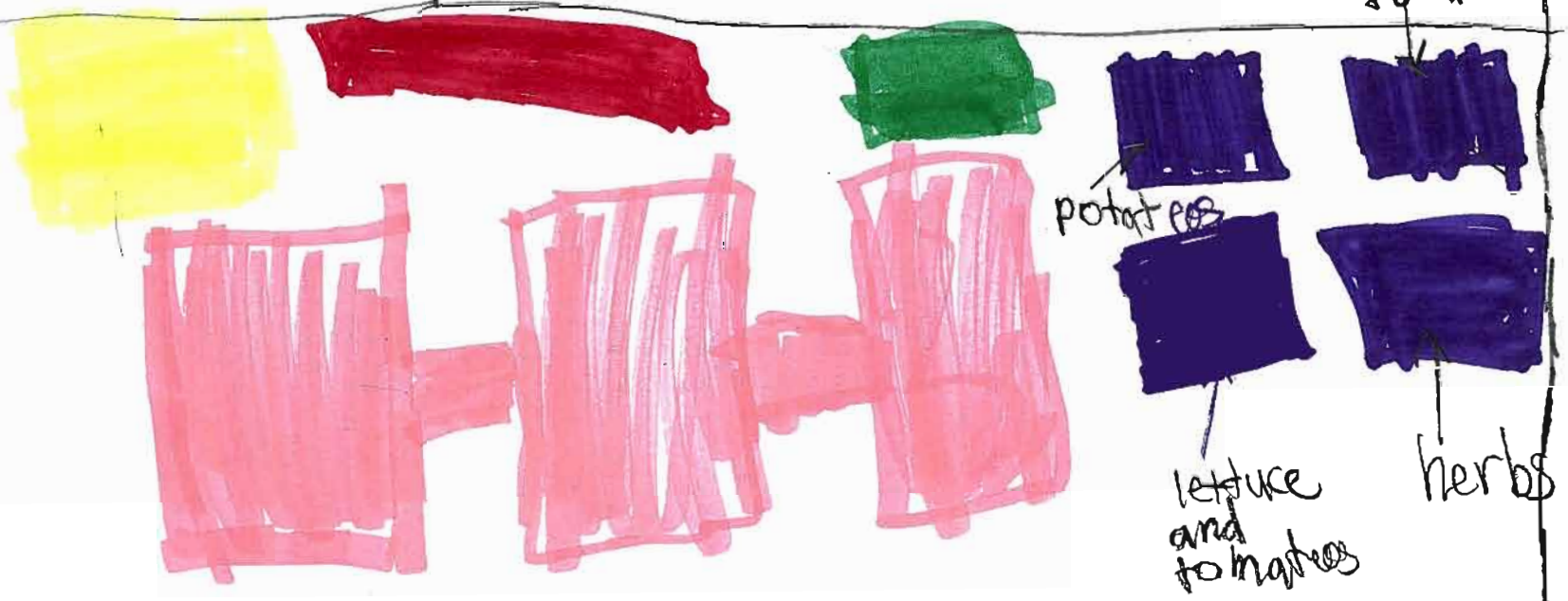
1 = ~~jungle~~ playground

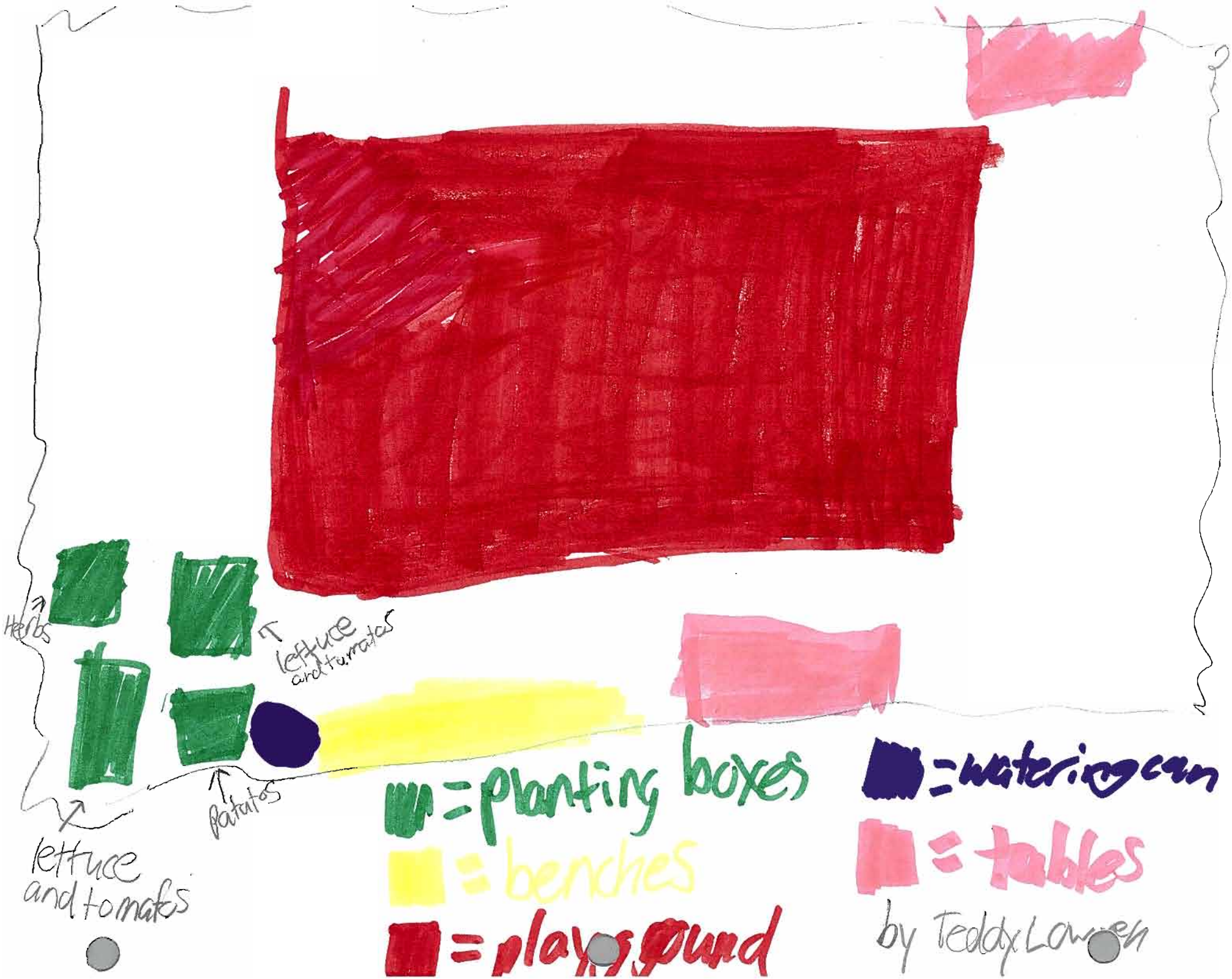
1 = ~~drinking~~ boxes

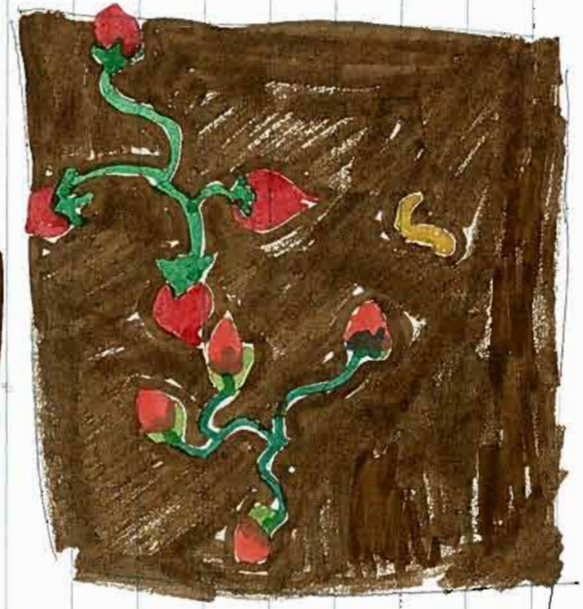
2 water container

Table

by Lukas Kurasiks




herbs
lettuce and tomatos
lettuce and tomatos
potatos
= planting boxes
= benches
= playground
= watering can
= tables
by Teddy Lawson



Key

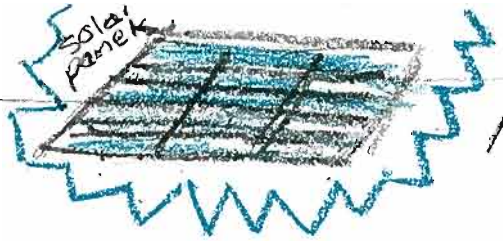
Potatoes-

Herbs-

Tomatoes-

worms-

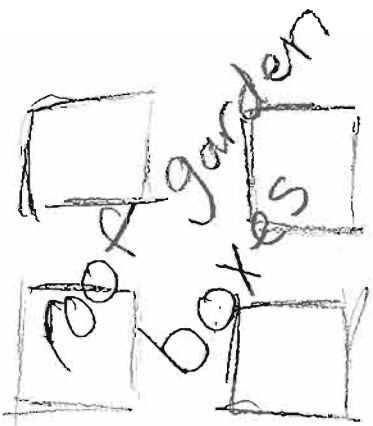
strawberrys-



stairs

door

Play equitment



door

Stairs

SOLAR PANELS

How Solar Works

PROJECT: Solar Panels

THE IDEA

How can PS40 save energy, and lessen the size of our carbon footprint? The kids want to know, so they brainstorm about every kind of alternative source of energy that they've ever heard of. Wind is a big idea; a green roof is up there too, painting the roof white?, what about biodeisel fuel?, changing the light bulbs?, but the most popular idea is Solar Panels.

We don't know much about Solar Panels so we came up with some questions that we needed to get answered. Is the roof strong enough to hold Solar Panels? How many Solar Panels would we need? How much energy does a Solar Panel make? How much do Solar panels cost? Where do you get Solar Panels? Can we do this ourselves? Will we need to hire an engineer? How much does an engineer cost?

It was decided that we needed to speak with some experts.

GUEST SPEAKERS

Our first expert was Lisa Fioto-Attianese, PS40's head custodian. Lisa told us that we would have to have our roof inspected to see if it could hold the weight of 5 to 10 Solar Panels. She suggested we look into how many Solar Panels we were interested in and how much energy we could save.

Paul Hansen

Paul Hansen, a scientist, came to discuss the possibilities of Solar Panels. The SGET were able to ask a lot of questions and most of the answers were pretty clear. We asked Paul: "Why would we want to install solar panels?" His response: "Solar energy could power all of the lights in the school and keep our 28 desktop computer lab for 24 hours. That's huge!" Pretty exciting, though we still are unsure if it's the best option.

Heather Faulding, PS40 mom and LEED certified architect, walked around the school with us and gave us her assessment. She suggested we wait a few years, let the prices of Solar Panels come down. In the meantime, she said, swap out the fluorescent bulbs for CFL light bulbs and install blinds on the windows so teachers can maximize the sunlight and minimize the artificial light. She believes this would make a big difference in the PS40 electric bill.

At the Stuyvesant Square Park Earth Day, we met students from the Manhattan Comprehensive Night & Day High School, a school for older students located a few blocks from PS40. They had made their own Solar Panel! They have agreed to come to PS40 and speak with the SGET and show us how to make our own Solar Panel.

These lights can be changed to compact fluorescent light bulbs.

These 'block out' blinds can be changed to louvered blinds.

THE BEST IDEA

We all think that probably the plan, for now, is for the light bulbs and the blinds project. Not nearly as exciting as Solar Panels, but it's a start and we have just begun our endeavor into SOLAR PANELS!

THE FUTURE

Solar Panels is a long term project and provided next year's SGET is interested, we will continue our search, and hope to have Solar Panels within five years.

TEAM-UP TO CLEAN-UP

PROJECT PROPOSAL FORM

Project Name: Solar Panel

Project Managers: Wesley Chow - writer — SGET Member name — 5-316 — Classroom

Project Managers: Daniel + Audrey — SGET Member name — 5-316 — Classroom

1. Explain what we want to do:

The goal of our project is to eventually installing solar panels on the roof on the school. We would also like to introduce the notion of alternative energy to parnets and staff.

2. Why is this project necessary, what needs to be changed:

This project is necessary because it saves a lot of money and the project saves energy.

3. What do we need to do to make the project work:

a. Get more money.

b. Get a grant from a Orgenation.

c. find place to put the solor panels.

d. Evaluate the school building to find out the impact

e. Hire engerneers to work on the solor panels.

4. What are the steps needed to carry out the project:

1. Get more money or donations.
2. Order the solor panels.
3. Get info from Paul Hanen and other experts in the field.
4. Find a place to put Solor Panel.
5. Find Someone to install the solor panels.
6. Power up the solor panels.

5. Draw pictures, take measurements, and take photographs of the location in which the project will take place. (separate sheet of paper)

6. List people, stores, companies who can help the project:

i. Paul Hansen

ii Lisa Floto,

iii Heather Faulding

iv

v

vi

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7. How much will it cost?

How ever, much the money is, we are looking for an organization to fund it.

8. List the things that will need to be bought:

A. Solar panels.

B. We are durrently researching what else we will need.

C.

D. _____

E. _____

F. _____

G. _____

9. Draw pictures of what the changes will look like. (separate sheet of paper)

10. Will we be able to do the project?

We are looking forward to continuing this long-term goal.

From: Suzie Baer <suziebaer@mac.com>
Subject: **Re: Solar panel information**
Date: January 28, 2010 8:10:44 PM EST
To: Paul Hansen <chemistpaul@gmail.com>

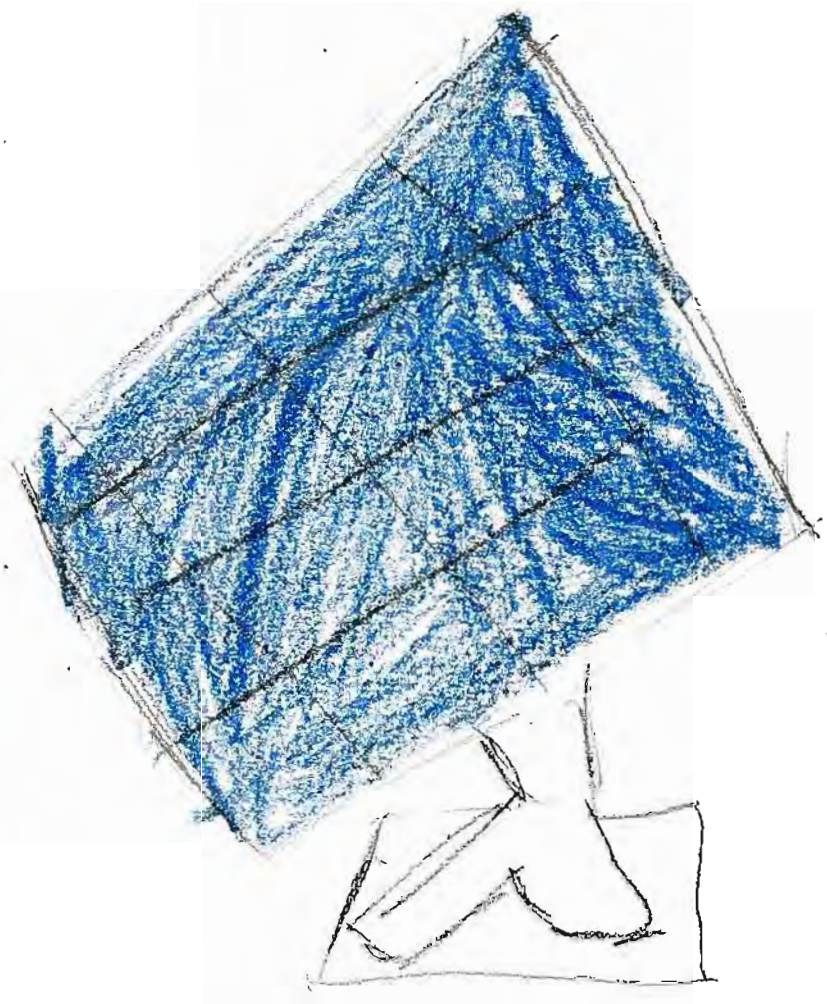
On Jan 23, 2010, at 7:00 PM, Paul Hansen wrote:

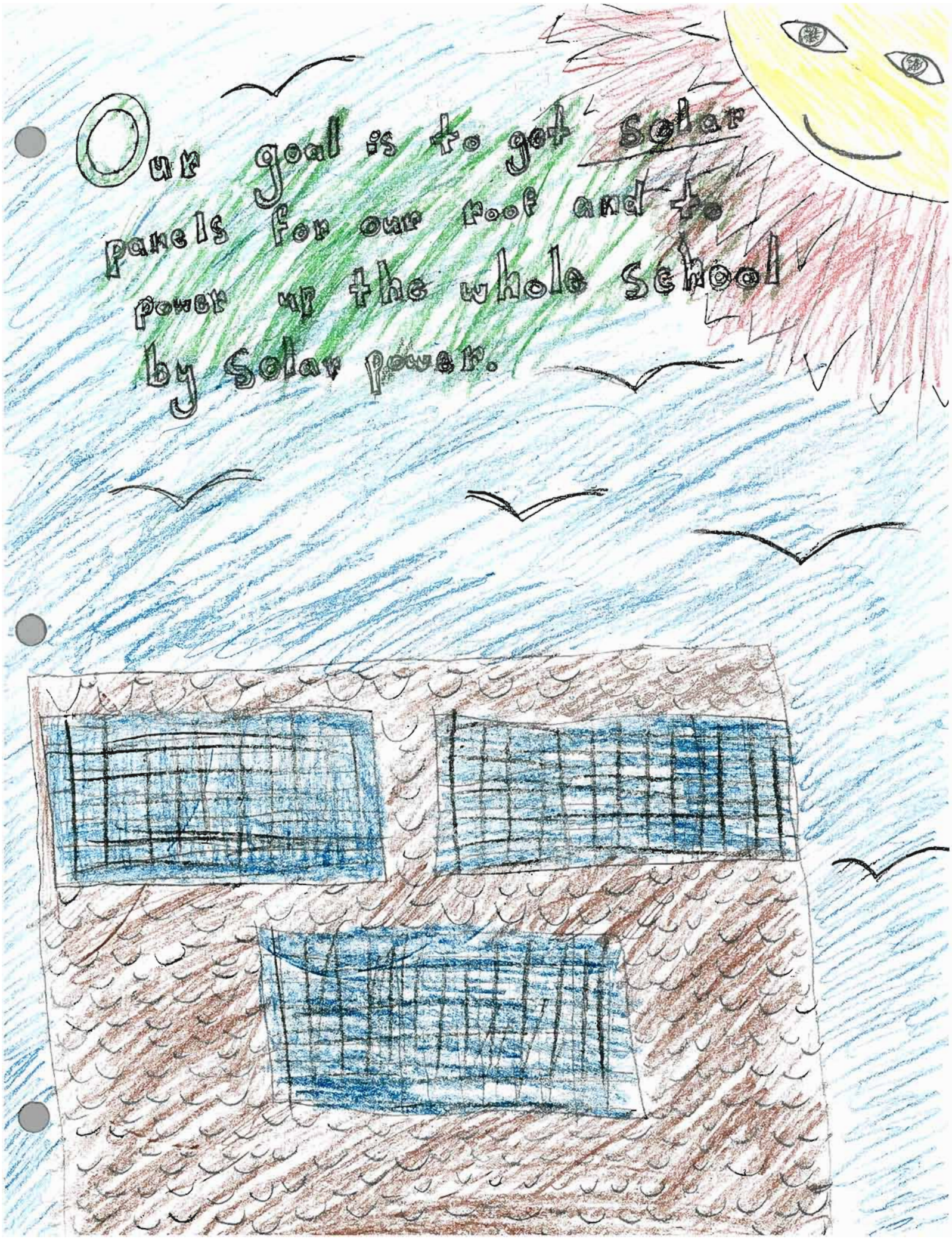
> I talked to my uncle just the other day and did end up asking about installing solar panels and got a few things of interest.
>
> First off he wanted to know if there were any large buildings in the immediate area that might cast a shadow over a building.
>
> I do not remember any, bing maps (http://www.bing.com/maps/) is suppose to give a good idea of how much sunlight would be available or taken away due to shadows but I do not have that to a working degree.
>
> It sounds like the important point is how much surface area is available which by a rough estimate from Google maps shows about 75 x 125 ft, or if we are to take another frequently used number we would take out the 10 ft closest to the edge of the building giving 65 x 115 ft or 7475 sq ft (both calculations looking at the north part of the U).
>
> With today's technology we can assume roughly 150 sq. ft. to a kilowatt hour providing roughly 50 kilowatt hours.
>
> My uncle I believe talked about the cost of the solar panels to be roughly $7 per kilowatt hour but I feel like that sounds cheaper than what I imagined.
>
> The final thing is that with the weight of solar panels the roof should be able to support between 5 and 6 pounds per sq. ft. which I suppose might be the most important number in this case.
>
> Finally if the school does start producing electricity by solar panels than there are a whole number of tax write offs available to the school, although I got no idea how taxes apply to a school.
>
> A database of all the financial incentives offered by the federal and state governments as well as loan programs can be found at this website: http://www.dsireusa.org/.
>
> If all of this sounds plausible then I would like to hear back if at least the basic engineering works out then it should be possible to put up solar panels.
>
> --
> Paul Hansen
> (202) 297-5976

Suzie Baer
suziebaer@mac.com

Before

After




Our goal is to get Solar
panels for our roof and to
power up the whole School
by Solar power.

Ideas

- Solor panles for energy for ps.4o school.
- eco-team Bake sale.
- (draw solor pnw or

However much the money is, we are looking for an organization to fund it.


MURALS

PROJECT: Murals

THE PROBLEM

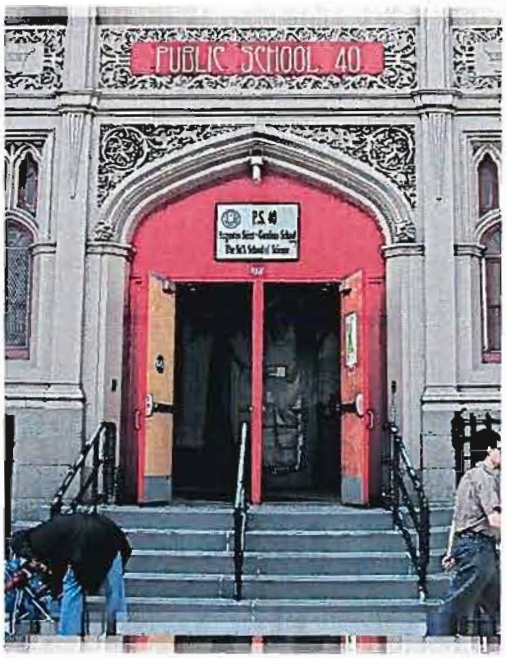
There were two areas of the school that kept coming up, during SGET discussions of what needed cleaning or 'beautifying' one was the 19th Street entrance to the school and the other was the roof. These areas are not terrible, they're generally clean; the walls are free of graffiti or discoloration. But it was unanimous that that both the side of the school and the roof could use some help. The 1st, 4th, & 5th grade students enter and leave school from that side of the school they felt it needed to be 'warmer'. On the roof, even with the new roof garden, it still didn't feel as fun as it should or could.

THE IDEA

Many ideas were discussed. Trees, potted plants, flowers, sculpture, art.... but the idea that seemed to stick was a mural. The 19th Street door is sandwiched between two very long empty cement walls. Each wall is about 20 Feet long and approximately 6 feet high (below the gated windows). The students thought that a mural would brighten the entrance to school and be a better representation of what a great school PS40 is. Yellow brick and wire fencing surround the playground roof, some color on those bricks would make it beautiful up there.

THE PLAN

What to paint? Who to paint it? How do we find someone? What will we need?



Penny, one of the SGET students, came to a meeting very excited to tell us that her father had attended PS40 and he said there was a mural when he was there and that it made him feel great. Daniel said that after some internet research he found a picture of an old mural that used to be inside PS40.

During one meeting, while the SGET members were cutting out beautiful pictures of nature for the collage we were making for the PS40 Auction, someone suggested that we use the collage as an inspiration for the mural.

The collage is a collaborative project with graphic artist, Bonnie Cummings (2nd Grade Parent) and the SGET. We got together several months ago to "brainstorm" about the SGET's mission as a group in creating a piece of art from recycled materials. The idea was that the piece should illustrate the things in nature that are precious to humans and to our earth; why we plant, recycle, don't litter...

The kids came up with themes relating to the ocean, earth, animals and vegetation and so it began and the idea evolved....

This collage was made possible by the kids who donated recycled magazines, news papers and package filler, along with Bonnie's recycled fabrics and special papers from left over design projects (all recycled in one way or another!) This piece has a *Where's Waldo* feeling, as you need to look closely to find the forest creatures and even humans that are hiding in the tree and ocean.

During Earth Week a parent read about our mural project and nominated a fellow parent (artist, Louis Renzoni) to do the nineteenth street project. Another student suggested Gaia Starr, an assistant art teacher at PS40, paint the mural on the roof. The style of artwork she does seems to be perfect for this project. SGET member, Penny spoke with head custodian Lisa who advised her of the appropriate manner in which outdoor painting should be done.

THE FUTURE

We are awaiting confirmation from these artists and soliciting donations for paint supplies from two paint stores. Our goal is to have both murals painted by the end of the 2009-2010 school year.

TEAM-UP TO CLEAN-UP

PROJECT PROPOSAL FORM

Project Name: Mural - 19th St and/or Roof

Project Managers: Penny - writer — 4-317
SGET Member name — Classroom

Project Managers: Daisy, Jack, Sophie —
SGET Member name — Classroom

1. Explain what we want to do:

We want to create murals that represents wildlife and the slowly rotating world. We hope it will help beautify the roof as well as liven up the 19th St entrance.

2. Why is this project necessary, what needs to be changed:

This project is necessary because when you are walking to school on the 19th street side and when you're playing on the roof you're probably not thinking about the earth. With a mural even as you're playing tag you'll be thinking of what you can do to help.

3. What do we need to do to make the project work:

a. Plan

b. Paint / paint brushes

c. Good texture surface

d. Permission

e. Drop cloths

f. Artists

4. What are the steps needed to carry out the project:

1. Get permission.
2. Find artists willing to help.
3. Create a layout.
4. Get the materials.
5. Paint the mural.
6. _____

5. Draw pictures, take measurements, and take photographs of the location in which the project will take place. (separate sheet of paper)

6. List people, stores, companies who can help the project:

i. Maggie Block-Penny's Friend

ii Angel Lamma-Daisy's Uncle

iii Hector-Custodian

iv Craig-Art Teacher

v Lisa-Head Custodian

vi

vii

7. How much will it cost?

We don't know.

8. List the things that will need to be bought:

A. Paint

B. Magnetic Paint

C. Buckets

D. Tarp

E. Paint Brushes

F. Paint Rollers

G. _____

9. Draw pictures of what the changes will look like. (separate sheet of paper)

10. Will we be able to do the project?

Yes we will.

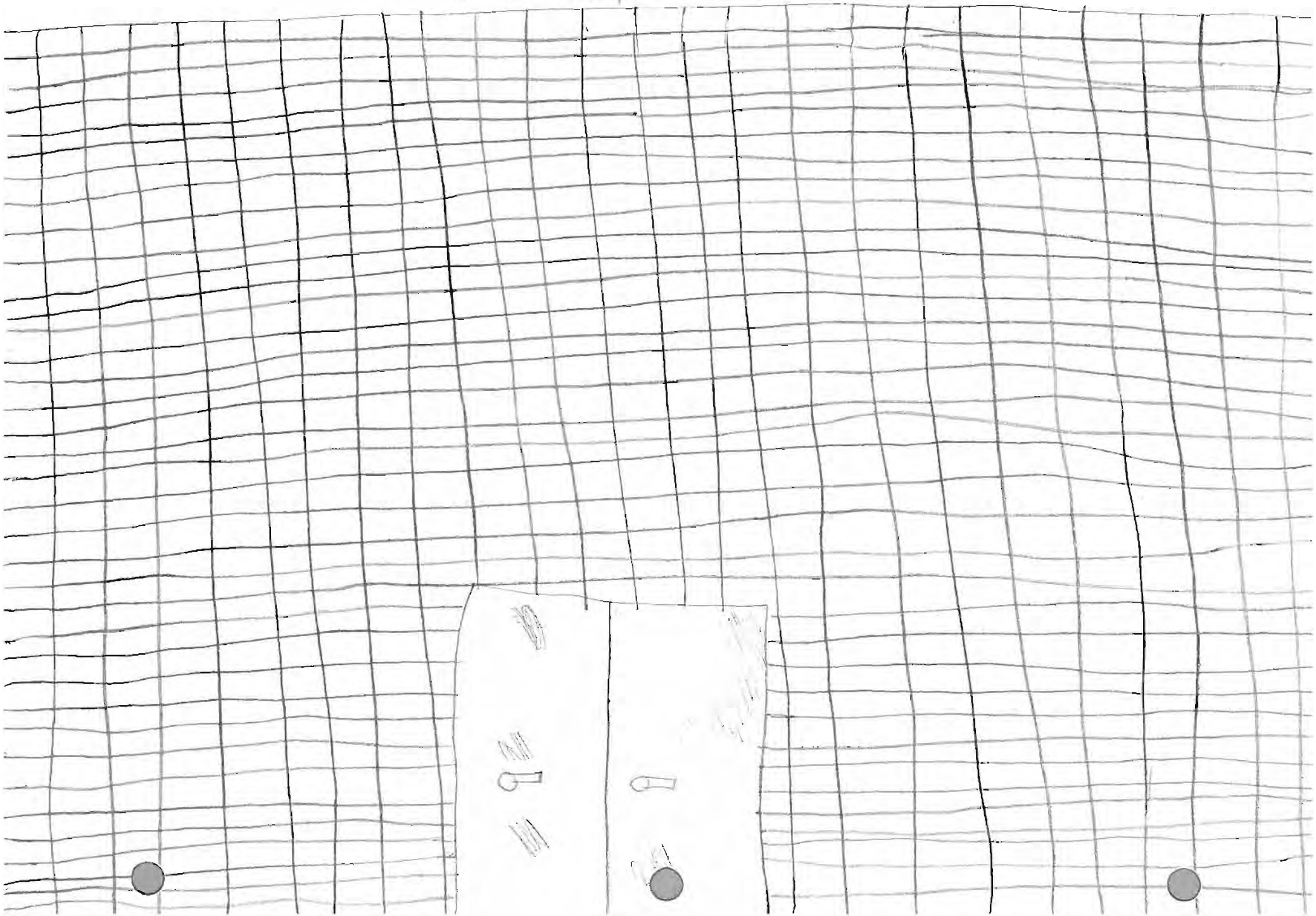
Measurements

Roof : "450" inches

19th Street: 488" inches

(PICTURE DRAWN FOR MURAL - LOCATION)

19th Street here, Roof on back



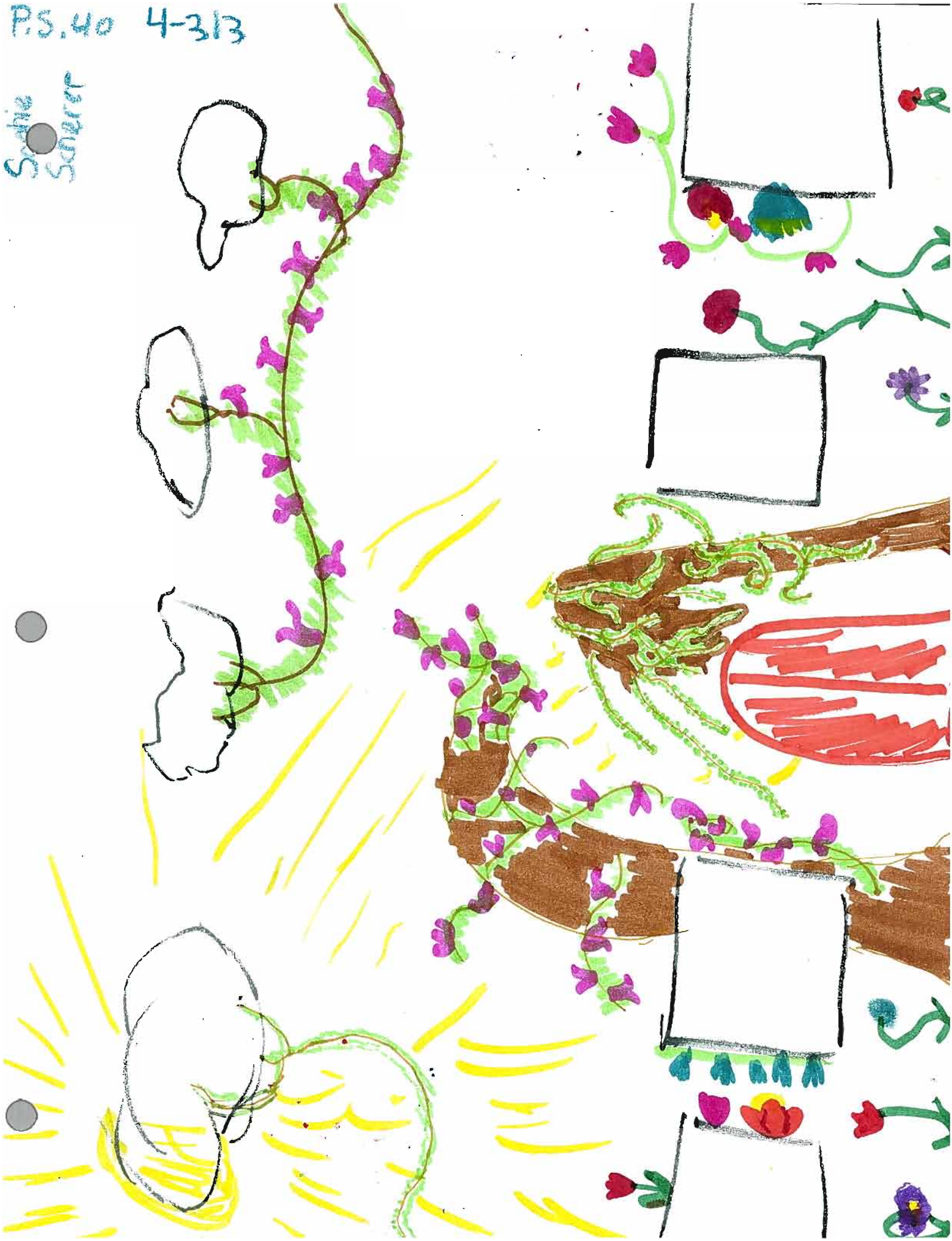
Our Mural Inspires other People

Love the Earth

Sprouting with Ideas

P.S.40 4-313

Sophie Sanfrer



Daisy Torres 4-3/15

Daisys uncle Could come in he is an amazing artist. He does Drawing all the time. He would have a great idea for the Mural to beautify. He allways does beautiful drawings. I'm shure he would do it. He even teaches me how to Draw


LEAF COMPOSTING
This leaf compost bin is maintained by the
PS40 2009-2010 Super Green Eco Team
PS40 Augustus Saint-Gaudens NYC

PROJECT: Leaf Composting

THE PROPOSAL

In early fall of 2009, the parent leaders of the SGET got an email from NYC parks department gardener, Gosha Mosiej, (via another PS40 parent) asking for help composting the leaves in our local park, Stuyvesant Square Park. She had heard about the PS40 SGET and wondered if we would be interested in partnering with the Parks Dept. and help compost leaves. This idea was presented to the SGET and it was supported with a resounding, "yes, when can we start". We corresponded with Gosha a few times and planned the SGET's first field trip.

THE FIELD TRIP

On November 23rd, the fourteen members of the SGET met in the cafeteria with our several parent chaperones and PS40 faculty member Erika Salzman. Each SGET member was given a pair of work gloves, donated by Town & Village Hardware, and the grown ups carried the chicken wire. We marched down Second Avenue on this beautiful brisk Monday morning excited about an opportunity to dig into nature. Gosha met us at the park and talked the kids about building a compost bin out of chicken wire, she explained how and where to rake up the leaves and she said we should fill the large plastic garbage bags she handed out, with leaves. A few kids should carry the big bag of leaves and dump them into the bins. While some kids raked and filled bags, others used plastic ties to build the compost bins.

It was not long before all the bins were filled. Gosha described to us all the process of composting leaves and how all the leaves the need is moisture and air to compost. Unlike food composting that needs worms, this would happen with very little work on our part.

Before we left, Gosha let all of the SGET members know that they were authorized to come to the park anytime and climb over the fences and continue to collect leaves and put them in the compost bins. She also invited us all back to build more bins.