



MAST Academy

A Nationally Recognized School of Excellence



MAST ACADEMY SUSTAINABILITY PLAN

Mission Statement: Establish and execute a 5 year sustainability plan, including net zero energy and net zero waste goals, incorporating conservation habits and new technology to save money, resources, and secure a livable world for our students.

Vision Statement: In the MAST tradition of environmental stewardship, we pledge personal responsibility to live within our means and promote the viable renewal of our treasured native land and marine species that have co-existed since Miami's founding.

Why MAST? Tradition of Marine Stewardship and STEM.

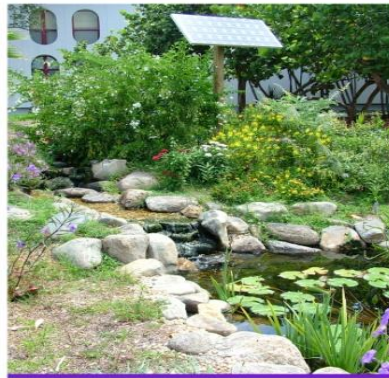
Solar Celebration The Sky Is The Limit!

MAST Academy 1997- 2011

Wafa Khalil, Ph.D.



Two kW Solar Array



Solar Fountain



Solar Projects Display



Electric Car, Solar Boat, Others

MAST STUDENTS DRIVING THE CHANGE. 2017

- Delaney Reynolds addresses 1,000+ MAST students in January 2017.
- They vote for a net zero energy school in five years!
- Overheard by a 6th grader, "Can we sell lemonade to buy solar panels?"



May 2018 tweet to the Superintendent = Center for Green Schools Advocacy Toolkit.

Leverage social media for your advocacy efforts

Social media is a great way to offer quick information and updates about your advocacy issue or activities. It's also an excellent medium for sharing events with a wider audience, celebrating successes, and thanking people for their support. Photos from events can make great social media content and draw more attention to your cause. We encourage you to amplify your advocacy message on social media and tout your milestone achievements.

Social media is not necessarily the place to answer every question, or get into deeper discussions. Decide what information is best shared on social media, and what would be better suited to an in-person conversation.

Leaders pay attention to social media

A student at MAST Academy in Miami, FL tweeted at her superintendent to celebrate their successful participation in Pepsi's Recycling Rally. She also used the opportunity to urge the district to deal with its poor-performing recycling vendor. The superintendent responded promising to enhance the district-wide recycling program, and parents and students at the school plan to follow up with him to make sure that in the future the vendor is able to recycle bottles and cans.



Net ZERO Energy Schools: Dept. of Energy Program

California,
Colorado,
Maryland,
New York,
North Carolina,
South Carolina,
Virginia.



ZERO Waste Schools: LA, NYC, Chicago, Charleston

Getting to Zero:

Interview with Meredith McDermott, Director of DOE's Office of Sustainability



With a Bosch Station



Florida Green Apple Certification. 10/30/17 FL Dept. Environmental Protection.

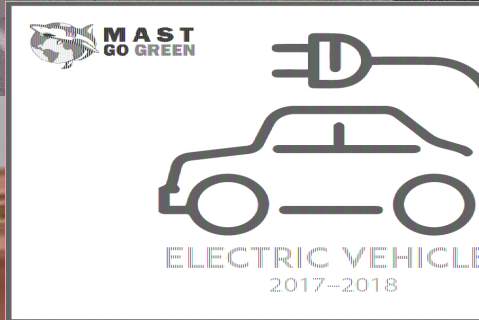


1. Waste Reduction (Recycling and Composting)
2. Water Conservation (low flow in new building, 50% of school)
3. Energy Efficiency (Conservation and Renewable energy)
4. Alternative Transportation (Electric vehicle car charging and Bike to school programs)
5. Air Quality (Filter cleaning schedule, no smoking)
6. Communications (PTSA Newsletter, am announcements, website)



Achievements since Delaney's Presentation: 2017-2018

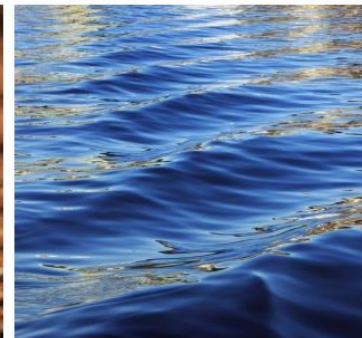
1. Created a PTSA Sustainability Committee. Go Green Webpage
2. Solar powered guard shack. EV charging. Straw removal. H2O fillers.
3. Enrolled in the **Florida Dept. of Environmental Protection, Green Apple Schools** -- Certified Oct. 2017, Invited to become a Green Ribbon School
4. Pepsi Recycling Rally. -- Winners: \$1,500 in \$ and products. Video
5. U Miami Abess Center for EcoScience. (Interns/Meeting space/Advisors)
6. IKEA (Paper recycling bins donated for every classroom. Tour)
7. Key Biscayne Community Foundation (donated \$ for recycling bins)
8. FROST Science. Mangrove restoration at MAST. (PD days)
9. Bosch Engineering. New waste stream set up. Free labor
10. Lutron electronics: Green Apple Day of Service . Classroom motion sensors
11. UM Bike Safe/Bike 305. Free bike clinics
12. District commitment to restart energy rebate program and to create a waste rebate program. Will allow us to now install solar at MAST.
13. Featured in Center for Green School for tweet to Superintendent to revamp recycling program.

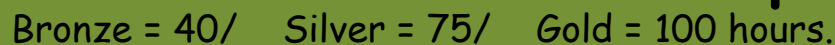


MAST Academy is going straw less!



Join us in the movement





1. General Meetings 6/10
2. Subcommittee Meetings 6/8
3. MAST Volunteer Workdays. 3/5.
4. FROST Volunteer Days (Coastal Restoration) 2 total. 1 per semester

Green Champions Schedule													
	August	September	October	November	December	January	February	March	April	May	mandatory hours	Parent student	Max hours
General Meetings - SALT UM RSMAS	SUN 19th 4 - 6 pm	Thurs19th 6 :30 -8:00	WED 10th 6 :30 -8:00	WED 14th 6 :30 -8:00	WED 12th 6 :30 -8:00	WED 9th 6 :30 -8:00	WED 13th 6 :30 -8:00	WED 13th 6 :30 -8:00	WED 10th 6 :30 -8:00	WED 1st 6 :30 -8:00	9h	P/S	15.5h
Sub Committee Meeting		2h	2h	2h	2h	2h	2h	2h	2h		12h	P/S	16h
Volunteer Day (MAST): Green Apple Day Service		SAT 22nd 8:30-12		SAT 10th 8:30-12	SAT 8th 8:30-12		SAT 9th 8:30-12		SAT 13th 8:30-12		9h	P/S	15h
After School Clubs: Florida Friendly - Ms. Martinez Eclipse Club (recycling) - Ms. Branton Ocean Club - Ms. Walker JROTC Beach Clean up		2d	4d	4d	4d	4d	4d	4d	4d			S	30h
During School Cafeteria: Ms Sese/ Volunteer Clearance		2 x week	2 x week	2 x week	2 x week	2 x week	2 x week	2 x week	2 x week			P/S	64h
Volunteer Day (Frost)	SAT 18th 9-11	Sat 15th 9-11	SAT 13th 9-11	SAT 17th TBC	SAT 15th 9-11	SAT 19th 9-11	SAT 16th 9-11	SAT 16th 9-11	SAT 20th 9-11	SAT 18th 9-11	6h	P/S	TBD
Potential Total Hours Based on Mandatory Participation													38.5h
Bronze = 40 hours Silver = 75 hours Gold = 100 hours													

FROST Shade House Vegetable Gardens:

MAST Volunteer Day
(3 minimum).

FROST Science Coastal
restoration Virginia Key
days (2 minimum).

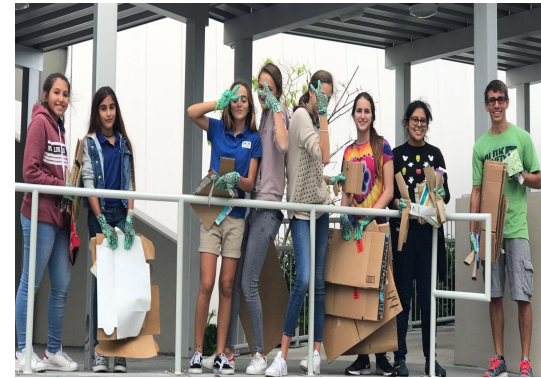


Solar Powered
irrigation with
a rain barrel?



Waste and Recycling.

Quality Control. Minimizing Contamination





Cafeteria Waste.

Waste Rebate from the District.

Composting solution. Tumblers, in vessel, food digester?

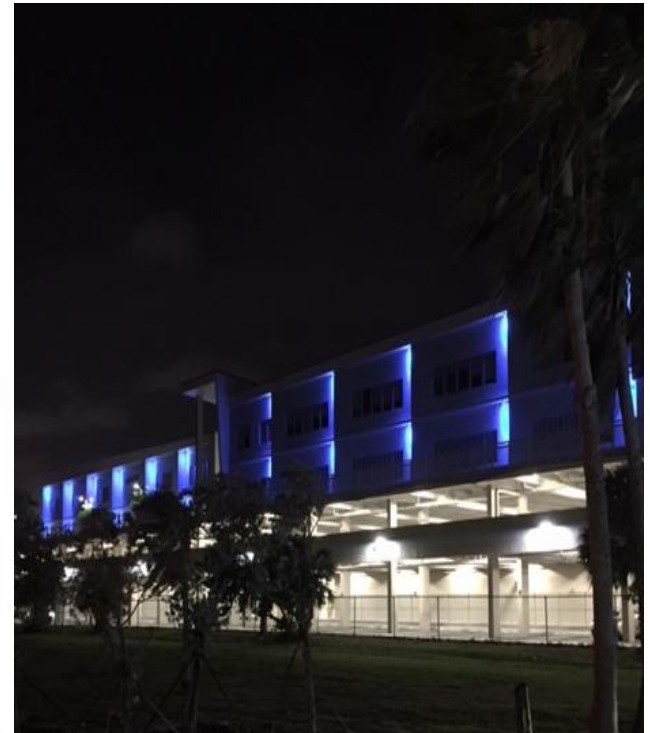
"Tap and Stack" Trays.



Energy Efficiency. Green Apple Day of Service.

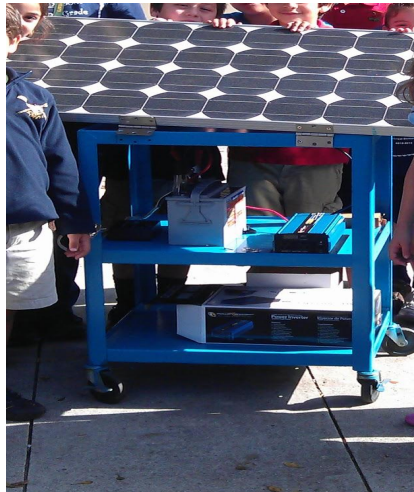


Lutron Electronics. Classroom/hallway sensors.
Emergency light audit and timers.
Energy Rebate from District. \$.75/\$1.00 savings



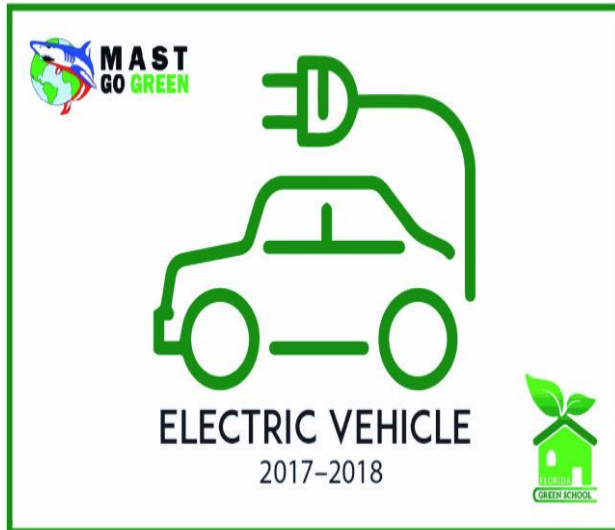
Solar Installation:

\$20K to outfit PE building and provide car charging



Alternative Transportation:

EV charging, SchoolPool, bike to school, no idling



SMART CYCLING BIKE CLINIC FOR FAMILIES



Friday, June 15th
Noon - 2:00 PM
Calusa Park
Free & Open to the Public

Communications:

Plan, Action, Feedback, Celebrate!

- PTSA Newsletter.
- MAST Webpage: PTSA Tab
- What's App Green Champions Chat.
- Monitor with a video playlist, including Delaney Reynold's MAST Visit. BBall Recycling Video
- Islander Newspaper
- Updating the School Board Member
- School Board Meetings



<https://mailchi.mp/usgbc.org/usgbc-florida-statewide-newsletter-issue-2-081318?e=97580fe9d7>



Communicating a common commitment to nurturing each other and our marine world. Spreading the message.

Cafeteria repainting, hang inspirational quotes, efforts, inspire our kids.

"You've been tagged" Green Champion volunteer of the month? Middle School/High School? Feature the kids.



MISTAKES
are proof
that you are
TRYING!

