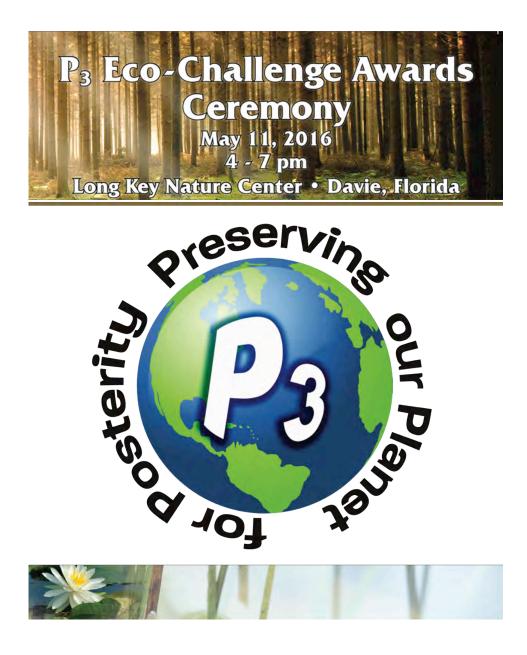
# 2016 P3 Eco-Challenge

# Nominees



# **STUDENT NOMINEES**

# **Elementary School Category:**

# Yamila Diaz, Hollywood Park Elementary School

Yamila is a fifth grade student in an Intellectually Disabilities cluster. She is very aware of the importance of recycling and keeping our Earth clean. She has been a good citizen in school by always cleaning her area and placing materials in the recycling bin. She has an extreme motivation for taking care of the garden. Yamila was also part of Hollywood Young Circle "Go Green" event in Hollywood, Florida. She created various crafts with recycled material, such as purses out of cereal boxes, and bird houses out of milk cartons. Lastly, she also planted seeds in recycled milk boxes from the cafeteria to give away at the "Go Green" event.

### Nathanael Lully, Royal Palm Elementary School



Nathanael Lully is a student who is very curious and has a love for the environment. He is a member of the Earth Patrols at RPE which has allowed him to grow as a leader and teach his fellow Earth Patrols about Going Green. Nathanael leads his group on Friday to recycle throughout the entire school, enhancing the recycling program at Royal Palm. Bringing out his skills and knowledge from his past experiences in Haiti about gardening, he volunteers his time after school in creating a great outdoor learning space and in the restoration of our Outdoor Learning Garden and Butterfly Garden. When Royal Palm has their Museum Exhibit Nights, Nathanael volunteers each time to educate the students, parents, teachers, and community members about what his school is doing to Go Green. He uses his prior knowledge about the environment and applies it to his academics.

# Middle School Category:

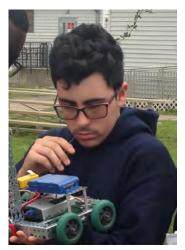
### Brennan Doak, New River Middle School

Brennan Doak is currently in the 8th grade at New River Middle School in our Marine Science Magnet Program. He has done research, data collection, planting mangroves and sea oats along with educating others. He is involved in many Eagle Scout/Boy Scout projects related to our local environment, specifically dealing with restoration and beautification. He also worked on a monofilament collection project educating fisherman and supplying them with collection containers. Brennan is also part of the ROV (Remotely Operated Vehicle) Class, and the Wheelabrator/Environmental group. He also participates in many environmental clean-up projects throughout the year from International Beach Clean Up and Waterway Clean Up. Brennan



continues to work to positively impart change at school and community to impact the marine environment.

#### Gabriel Garmendia, Apollo Middle School



Gabriel is an 8th grade student interested in Zoology as a future career path. He promoted waste reduction by using recyclable materials and has a deep understanding that changing our school culture will eventually be contagious therefore changing our society. Gabriel demonstrated an amazing amount of creativity when he came up with a garden robot idea and developed it from scratch. Gabriel tested his robot in our garden and is currently taking steps to upgrade the robot to fit the needs of not only the different variety of plants in our garden, but also the different users. Gabriel's idea was to use a robot to help disabled students and the elderly of this community take an active part in the continuation of our garden. Gabriel and his group developed the concept of a robot that could till the ground, plant seeds, water plants, fertilize, and harvest crops. Gabriel understand and promote ways of reducing negative human impacts by making more people aware of how they can control their environment.

#### Diya Jayram, Walter C. Young Middle School

Diya is a very active member of the Environmental club at school. She dedicates many hours searching and creating new ideas to be implemented at the school. She organizes the school-wide cleaning and gardening and encourages students, teachers and staff to participate in environmental activities. She participates in the bird watch program by Cornell Laboratory at school and understands how collecting data about the migrate birds at school helps scientists learn more about the birds that migrate to the school. She likes to talk about all the opportunities that students have to learn about current environmental issues and how they can create solutions to those problems. Diya is a very dedicated student that is always looking for ways to motivate and make connections to the real-life environmental issues.



#### **Danel Le Roux, Pioneer Middle School**



Danel's paper recycling efforts resulted in Pioneer Middle School receiving a grant from the Recycle Bank! She has always been concerned about environmental issues and is dedicated in reaching others with her environmental efforts. Danel volunteers to address environmental issues at Pioneer with a small group of other interested students. She is currently planning an Everglades Awareness outreach to the community at Cooper City's Founders Day on April 30. In preparation for Founders Day, Danel is helping to make posters of the different Everglades habitats. She will use hand puppets to engage younger children in learning about invasive and exotic species of South Florida. She is positive, optimistic and always willing to work hard – regardless of the job at hand.

## Lindsey Pardon, Pioneer Middle School



Lindsey has taken to heart a sincere interest in learning what she can do to help the Earth and is always anxious to participate in every challenge. She is positive, optimistic and uses clever insight to accomplish this. She helped tape laminated reminders to turn off the light switches in all the classrooms; made environmental posters and clever PSA slogans for daily morning school announcements; convinced the Peer Counselors to assist with recycled paper collection for pickup receptacles. She has shown concern for endangered animals on campus grounds; planted milkweed seeds for transfer to the school's butterfly garden and is currently planning a campaign on Everglades Awareness to reach the community at Cooper City's Founder's Day on April 30, 2016. Lindsey has always been concerned about environmental issues and is dedicated in reaching others with her environmental efforts.

#### **Bianca Pineros, Tequesta Trace Middle School**

Bianca Pineros is an inspiration to all with her positive energy and engagement in environmental projects. Her willingness to participate as a leader and active participant continues to impact the school's recycling, campus beautification and service. Bianca, as one of the peer selected JHS officers, has gone to multiple leadership training workshops through the Broward County's Honor Society conventions and workshops, and puts to practice the advice and techniques she learned at these trainings. Her input was valuable when we met with Broward County's NatureScape to plan the planting of native trees and plants as we worked on the Carbon Capturing Canopy Grant. She participates weekly and volunteers regularly for what is needed on



"Save the World Wednesdays" after school. As a leader of two different student groups, she helps create a culture at Tequesta Trace that fosters environmental awareness and positive action!

#### Julie Telleria, Apollo Middle School



Julie is an 8th grade student that is part of an organization called GLOBE(Global, Learning, Opens, Broad, Experiences), and has recycled books to ship off to schools in India exhibiting global awareness of happenings in other countries in the Education sector. She makes sure that during the morning announcements she leads discussion about "Happenings around the World". Julie makes our student body aware of current environmental problems such as the Zyka virus and natural ways we can prevent it. She is part of the Global Learning Offers Broad Experiences (GLOBE) club which informs people on what is going around the world and tries to help people that are less fortunate. Julie is also part of Students Working Against Tobacco (SWAT).

# **High School Category:**

#### **Ronaldo Adain, Whispering Pines School**



Ronaldo is an endearing and fun-loving young man who is currently at Whispering Pines School to obtain skills to prepare him for the workplace and community at large. Working alongside the horticulture teacher, Ronaldo developed a schedule for the school-wide recycling program. He is motivated to grow this program and teach others about sustainable living practices. Ronaldo created a walkway on the school campus that has become a focal point that showcases Florida Native species and student created stones. Ronaldo asked his classmates to design stepping-stones for the pathway that reflect "green ideas" and a love of nature. This space is a source of pride for Ronaldo and the school. Ronaldo stated, "Working in the garden makes me calm and a better person." Ronaldo explained that his employment goal is to encourage others to, "be good citizens and take care of the planet".

#### Juan Cabrera, South Plantation High School

Juan Cabrera created a hydrogen generator to plug directly into a gasoline engine. He wanted to lower the amount of greenhouse gas emissions cars created while making a cost efficient, practical system for drivers to easily implement. He created this system by running electricity through distilled water while catalyzing the reaction with potassium hydroxide. Juan won 1st place at the county science fair and is currently competing at the state competition at the time of this entry.

### Theresa Fonseca, Cypress Bay High School



Theresa has been an integral part of the Cypress Bay Ecology Club. She was an active participant in beach clean-ups with Key Club, and dog washes for the South Florida Siberian Husky Rescue. Dedicated to the club she helps with organizing volunteer opportunities, and planning Earth Day events. During the fall semester of school, she initiated and planned our participation in the schools International Fest. Theresa has a very good awareness of concepts involved in sustainable use of resources, and her expertise is shown in her involvement in the Ecology Club recycling and in promoting students and teachers at our school to use resources more

sustainably. She will spend 5 days of her summer vacation visiting Yellowstone and Grand Teton National Parks to gain knowledge of protecting these wild places and the wildlife that live there. She hopes to major in animal sciences and ecology in college.

# Kendra Perkins, South Plantation High School

Kendra Perkins is a senior in the Environmental Science and Everglades Restoration Magnet Program at South Plantation High School. Leading the ER Ambassador Club this past year as President, Kendra successfully recruited a record number of new members – over 50! Furthermore, Kendra helped created new field trips to elementary schools and the Everglades this past year. Kendra has used the club and its members to help promote environmental awareness at events such as "Camp Everglades," "Street Clean-ups," "Elementary After Care Programs," "Eco-Action Days," and "Magnetic Experience Open House". The club also attends community environmental events (Water Matters Day and Sunrise Earth Day) to educate the public about environmental issues. In order to fulfill her passion and keep up with current issues, Kendra regularly attends conferences such as the Everglades Coalition and Sea Level Rise symposium, as the student



liaison for the school. Through these and many other endeavors, Kendra is determined to be sustainable, and make sure others can be, and should be, like her: an astute, well-rounded young leader who is dedicated to the environment and our future.

# **Daniel Ramirez, McArthur High School**



Danny as we call him has shown his skill and abilities beyond anyone imagination. Danny demonstrated awareness of the natural and built environments. He also understands concepts, issues, feelings, values, attitudes and perceptions at the heart of environmental issues. He promotes civic responsibility and encourages fellow learners and peers to use their own knowledge, personal skills and assessments of issues as a basis for problem solving and action. Danny is very creative whether it's moving seedlings to port with soil or lining brick around trees or along sidewalks. He forges relationships between the environment school and the community. He was invited to participate in the Horticulture Professional Industry Certification Examination and passed all four sections of the exam.

# **EDUCATOR NOMINEES**

# **Elementary School Category:**

# Tara Dukanauskas, North Andrews Gardens Elementary School



Tara utilizes interdisciplinary instruction which includes: literature, technology, hands-on activities including STEM activities and a variety of resources for a FARM TO TABLE theme related to organic gardening. Tara uses a variety of resources including the Gardening for Nutrition curriculum and Nutrients for Life. Students work indoors and outdoors as they create and maintain the garden. Students are assessed through pre- and post-tests as well as rubrics, observations and their Garden Journals. Community resources include a master farmer, a nutritionist, volunteers and local grant funds. Environmental issues include organic gardening, composting and the ozone layer. Tara has reached out to the community

for support and grants. She has forged a relationship with other schools that have gardening programs. She has built relationships with community members such as Master Farmer Ian and the Broward Education Foundation even receiving some free gardening materials from Javier at Tools for Schools.

# Karen Gonzalez, Silver Ridge Elementary School

Ms. Gonzalez motivates students throughout SRE to become life-long earth stewards. Students look forward to becoming members of her ecology corps when in 5th grade. The 5th grade class of 2015 parents donated funds and participated in creating a garden with Ms. Gonzalez' guidance that will be a part of Silver Ridge for years to come. This garden includes native plants and a solar powered fountain to model for our families that conserving our natural resources is all of our responsibilities. We are now also raising an awareness flag for our community each morning that indicated the air quality of the day. This flag helps our students and neighbors make connections between pollution-causing activities, our air quality, and outdoor activities.



# **Ruth Griffith, Lake Forest Elementary School**



Through the use of gardening, specific environmental activities, and hands on authentic team building science events, Ms. Griffith has enabled her students to follow and use the scientific method, collect and utilize scientific data and tools, learn to think critically and problem solve while practicing how to think logically and sequentially. She has given the students an awareness of their environment, global warming and habitat endangerment, along with the idea that they can grow their own food. They have experienced

the feeling of success and ownership as they created a habitat of learning and beauty, and developed an attitude that promotes a relationship between themselves and their planet through respect for their surroundings. She attended The Flying Classroom training, an interdisciplinary curriculum that spotlights science and mentors at-risk youth, and took training in GLOBE, which allows students to work with NASA by monitoring weather through data collection. These opportunities permit Ms. Griffith to make learning more authentic and meaningful to her students.

# Amanda Labuda, Peters Elementary School

Ms. Labuda is very involved in finding new and exciting ways to get her class outdoors and get dirty. Even on walks to the restroom, they are always observing nature. They have found ways to save and protect the ever growing butterflies and caterpillars that find their ways into dangerous doorways or walkways. The class feels they have a huge responsibility to make sure everyone on campus is aware of the gardens and how to care for them. Her classroom is not just our little room but it is the entire school campus.



#### Melanie McLeod, Palm Cove Elementary School



I feel like I am the black sheep of my school. I am the one that can be caught getting my hands dirty or using an integrated unit of study. I do not use teacher's editions and tend to pull lessons that meet the standards being taught from something science related. Behind my desk you will find, Gardening for Grades and Nutrition, Nourishing the Planet, My Plate, Harvest of the Month, The Great Water Odyssey, and my new favorite The Flying Classroom. I use a lot of community resources as well. I have been able to get resources from Oracle Elevator, Broward County Parks & Recreation, and fellow colleagues. I make sure that all of my students are able to learn and get activities based on their own level. My class integrated and differentiated.

#### Lisa Scott, Sheridan Park Elementary School

Mrs. Scott was chosen Teacher of the Year, this year. She regularly demonstrates her creativity with her students. She's had them create bird feeders and bird nests as part of STEAM lessons. They participated in the county's STEM lessons for third grade, where they needed to show how they would survive in the wilderness. Students work in grade level gardens, weeding, planting and watering their plants. She uses Edmodo.com, Glogster.com, PowerPoint, as well as Britannica as a way of motivating students to want to learn new things and show their creative sides. Mrs. Scott has ignited a curiosity of other cultures by connecting to Gueiren Elementary School, in Taiwan, where the students can exchange ideas and projects.



# **Middle School Category:**

# Grisel Berrios, Walter C. Young Middle School



Mrs. Berrios is involved in many activities at Walter C. Young Middle School. Her motivation and passion for the environment is reflected in all the activities that she does around the school with her students. Her involvements around the school not only have an impact on her students, but on the community at large as well as the environment. Mrs. Berrios promotes her Young Knight Environmental club by inviting all students and teachers to participate every Friday morning. What makes Mrs. Berrios successful in efforts to be sustainable is that she enjoys teaching and giving the students the opportunity to connect with nature by gardening, studying birds, cleaning around the school, recycling, and having them work on different projects that impact them

and the community at large.

# Nibia Cedeno, Apollo Middle School

Mrs. Cedeno is a 6th grade teacher who wanted to get kids involved with recycling and re-purposing. After teaching a few lessons how trash affects the environment, she came up with an idea that maybe collecting chip bags and other type of disposable items. Her student reported going around his neighborhood and cleaning the drainage that were filled up with deposited leaves and others sediments carried by the rain water preventing the water to run down the drain and causing the street to be flooded. Rafael created a paper mache' model that signifies him and his brother holding the Earth up to protect from pollution. He learned that it takes up on everyone to do their part and but moreover, he knows that it starts with one person to create a movement.



Rafael promoted the drive that take for the entire class to be involved and aware that we use and reuse every day items and when not desirable to continue using them, there was a proper way to dispose them in recycling bins.

### Linda Gancitano, Driftwood Middle School



Linda Gancitano, is able to bring people together and inspire them to make a difference. Linda believes with a team of passionate students, faculty and the community anything is possible. She continues to demonstrate leadership in many different areas of life. Linda started the Driftwood Middle School (DMS) Green Team in Nov. 2008 after watching Al Gore's documentary, *The Inconvenient Truth*. She said she couldn't stand to watch the swimming polar bear drown because the bear couldn't reach another iceberg because the sea ice is melting.

In 2008, the Green Team consisted of three teachers and three student leaders. The team has since tripled in size and the school's culture is visibly environmentally friendly. Ms.Gancitano, created the energy reduction project called "How Low Can You Go Challenge?" The intention of this project is energy conservation. The total drop in Green Gas emission was 23% from 2008 at Driftwood Middle. The tradition of the DMS Chillers continues on to reduce the impact on the environment. Ms. Gancitano, brought the How Low Can You Go Challenge to a larger arena. She sought out a

popular partner, the NBA National Champions Miami Heat. The Miami Heat and the American Arena were voted for being one of the top "Green" sport teams and GOLD LEED arenas in the country. If any partner could raise the awareness of reducing CO2 emissions the Miami Heat during the NBA Green Week. The initiative continues to inspire schools all over south Florida. Over 100 schools have participated in the challenge in the last three years. During the last three-years of the challenge there has been a total of -3,014,916 reduced kilowatts and a cost savings to the BCPS \$304,596.The Challenge has expanded to the Palm Beach schools. Ms. Gancitano and The How Low Challenge have been recognized by the White House for being a White House Champion of Change for Environmental Literacy and Education. She sat on a panel with seven other Champion of Change recipients where she answered questions from the audience and people tweeting in from across the country.

#### **Barbara Humphreys, New River Middle School**



Barbara Humphreys has been instrumental in increasing environmental awareness at New River. From including environmental issues in her curriculum, taking her students out into the field, to being a leader in increasing New River's environmental awareness, Barbara has made this one of her top priorities. Through the Marine Science Club that she established at New River, students have researched environmental problems on campus and in the community. This year the students have chosen to address the problem of microplastics in the ocean. With her guidance her students have created a campaign, to make everyone aware of the problems and have implemented that plan. Ms. Humphreys' students have also worked with the University of Miami CARTHE project painting drifter cards that were released this past

January in the Gulf of Mexico to track pollutants in the Gulf. They Skyped with UM and discussed the importance of tracking the currents. Ms. Humphreys has also worked with South Plantation H.S. to build and plant a vegetable garden with the Marine Science Club and ASPIRA students. Thorough this project they are learning about sustainability and nutrition. Other projects include marine art using recycled trash and other ways to encourage discussion and action to help preserve and protect our environment here in South Florida.

#### Monique Mitchell-Eames, Millennium Middle School

Mrs. Mitchell has been involved in various projects involving global environmental awareness such as Eco Schools in partnership with Anping junior high in Taiwan, creating edible garden beds, seasonal crop preparation, nutrition education, waste reduction awareness especially in the school cafeteria, school recycling, composting, butterfly gardening and lifecycle education, vermiposting, donating to local food banks and mangrove planting. Students and teachers have used the garden as an outdoor education center and have also consumed crops harvested. Through various project based learning modules, students take full responsibility of their education while utilizing STEM to solve real world problems. They



have increased in their global awareness of their ecological footprint with Eco schools program and have served as leaders to fellow classmates in recycling education and sustainability practices. Mrs. Mitchell is unique in creating an engaging learning environment outdoors where students are constantly engaged, utilizing the scientific method, and also via field trips and community partnerships, interact the local community.

# David Reese, Jr., Apollo Middle School



David Reese, Educator, Nature Enthusiast and Gardener Mr. Reese has been Apollo's environmentalist extraordinaire. Meticulously expanding our mission to strengthen our school's garden while integrating the social studies curriculum to his passion for creating a sustainable mindset at Apollo. Mr. Reese recognizes the impact of creating environmental awareness, the role the environment plays in the survival of our own species, the economic implications of agriculture to a society, and how to get students to learn simple gardening practices that they can implement at home to grow organic produce for a healthier lifestyle. This is not enough change for Mr. Reese. He goes above and beyond to gather

resources. Several donations have of outdoor flooring and building materials have been donated because of Mr. Reese's perseverance. One other way he does this is by eliciting expert advice from the USDA through which he has registered the special grounds we share at Apollo. He registered our STEM Garden as part of the USDA People's Garden Project. We are proud to report that Apollo is one of three Schools in the State of Florida that is part of this network of Community Gardens and the only one in Broward County Public Schools.

#### Carolyn Sant Angelo, Tequesta Trace Middle School

Carolyn Sant Angelo is enthusiastic about learning and the environment. She initiated the theme of Eco-Partners that has had a huge impact on our school's sustainability. Staff nominated her for Teacher of the Year in 2015. Carolyn is a Highly Effective Teacher and is also a National Board Certified Teacher. Her civic involvement has been evident since she arrived at TTMS with her organization of the Relay for Life team, Advisor Role for Junior Honor Society & Heroes Club for students to engage in environmental and multicultural diversity. She shares ideas and resources regularly with her colleagues



about environmental contests, activities, websites and ideas. Her reputation as a fair and impactful teacher who cares about the environment is verifiable. Walking into her classroom you will always see colorful displays of student made models and interactive projects. She has brought wildlife into her room so students can observe snakes, hedgehogs and more critters. Her students often set goals and do self-evaluations to own their learning. She has science environmental experts and guests in her room throughout the year.

# **High School Category:**

#### Dr. Jody Berman, South Plantation High School



Jody walks the walk! She washes plastic silverware and every throw away plastic container. She recycles everything that can be recycled! She even carts items home to put in her home recycling bin if they cannot be recycled at school. She brings a reusable lunch bag and water bottle to school each day, and drives a small car. She is an excellent role model for her students. Dr. Berman teaches a lifelong skill of being an educated consumer and that reducing is the best environmental practice. She is experimenting with the use of grow bags as a means of raising herbs and vegetables. This space saving method of growing crops teaches students that even if you live in an apartment, food can be grown on your balcony or patio. The learning environment in room 528 is that of rigor, relevance and fun. Dr. Berman exercises excellent classroom management in a

calm productive manner. She uses a variety of teaching techniques from lecture, group work, independent study or research, projects, labs, to the infusion of technology such as iphones, ipads, laptops, and hand held data collectors. This benefits students with all different learning styles and allows for fair alternative assessment measures. Dr. Jody Berman is passionate about doing her part to save the environment. Her passion radiates to her students many of whom chose environmental fields of study once they leave South Plantation High School.

#### Jeannine Russo Grossi, Cypress Bay High School

Jeannine is the sponsor of the Marine Science Society, a club at Cypress Bay, she started in 2006. She involves the students in many extra curriculum activities dealing with conservation awareness, proactive involvement as well as enjoying our environment. The club is known for fostering a scene of community by participating in local events and fundraising toward donations to marine mammal institutes. Her club members are known for building transcending relationships and commitments with positive environmental organization. The skills and experiences obtained in this club become a huge part of their lives that they carry these beliefs and experiences out of Cypress Bay into the "real world."

#### Vincent Newman, McArthur High School



Mr. Newman is very aware and involved and fosters his awareness of natural and built environments. Mr. Newman promotes a positive understanding of concepts, issues, feelings, values, attitudes and perceptions at the very heart of environmental issues. Mr. Newman advocates civic responsibility by his involvement with local issues as well as regionally, nationally and globally charged issues. Mr. Newman makes his students aware of the same and advocates for peaceful problem solving.

# Cynthia Nowicki, Whispering Pines School



Ms. Nowicki was honored as Florida Agriculture in the Classroom Teacher of the Year, 2016 for promoting sustainable living and creating a mindset around green innovation/conservation. She is a resource for growing techniques for fresh foods, promoting and expanding recycling and protecting biodiversity/wildlife habitats. Ms. Nowicki has relationships with other schools, community groups and businesses and shares plants, materials and hands-on training in the living classroom. Students participate in lessons related to the horticulture industry inclusive of landscaping practice, plant propagation, safety, fertilization and biological pest control. As the garden grows, students have novel learning and exposure to trends in agriculture.

Ms. Nowicki shares a variety of planting techniques, irrigation and sustainability practices that have far reaching benefits. Students are enrolled in career classes and the nursery serves as a forum for workplace competencies including work habits, ethical behavior, and appropriate attire/personal care skills required to maintain employment. Students learn teamwork and communication enabling them to obtain employment within the community at large in the horticulture industry. Students are currently interning and volunteering at the Town of Davie nurseries, helping to grow and expand their gardens using techniques developed in class. Using enterprise skills, students started private landscaping businesses within their communities.

#### **Robert Reinertsen, Piper High School**

Mr. Reinertsen conducted a two-week (ten day) project based instructional unit whereby students learned about climate change and how specifically, we as humans, are both the cause and the solution to the problem. Students learned about other sources of alternative non-carbon based energies such as solar, wind, nuclear, electric vehicles, fuel cells, biomass, geothermal, wave energy, tidal energy, and hydroelectric. Students were charged with analyzing the costs associated with adopting this energy and the extent to which the county's carbon footprint could be lowered. Was it worth converting to alternative energies compared to the existing costs of oil and



gas based energy? Lastly, a group of students turned their ideas into practice by helping to retrofit a gasoline powered pick-up truck to a 100% battery operated vehicle with ZERO carbon emissions. Students assembled after school and assisted our school-based auto tech-shop with this project. Utilizing an alternative, hands-on, learning site proved to be very impactful to students and helped foster a deeper understanding of the concepts and issues related to global warming and alternative energies. Furthermore, this project has built greater interest among students to explore college courses and degree pathways related to STEM and alternative energies. Students have developed an awareness for the environment and an understanding that they can prevent and address environmental issues in their everyday lives. Due to this, Mr. Reinertsen has built greater interest among his students to explore college courses and degree pathways related to STEM and alternative energies.

# NON-INSTRUCTIONAL NOMINEES

# Michael Helton, Pioneer Middle School

Mike has been a custodial grounds keeper at Pioneer for over 17 years and has attended Environmental Workshops designed for school custodians. Mike has always taken an active interest and awareness of the status of wildlife on campus. He is genuinely happy when the burrowing owls and Purple Martins begin nesting and alerts us teachers about this. He keeps the campus immaculate and free of debris and monitors the sprinkler system for efficient distribution and timing. He encourages students to recycle plastic bottles in the cafeteria and supports the school's efforts to reinitiate paper recycling. He is cheerful, helpful, conscientious, hard working and very good at his job!



# Daniel Imbriale, Gulfstream Middle School



Dan Imbriale is the Head of Facilities/Energy Coordinator at Gulfstream Middle School. He takes it as his personal responsibility to make sure that every member of the campus knows how to do their part toward Environmental Stewardship. Dan has worked with organizations to expand the orchard and fruit bearing gardens at GMS. He maintains a bulletin board of the wildlife that he has come into contact with on our campus. Dan recognized the natural patterns of flooding at our school and worked to correct those problems through landscaping. He works with all after-school and co-curricular programs to be certain that the programs contribute to the

overall enhancement of the school facility and learning environment. Dan works hard to make sure that the school environment is safe, clean, and energy efficient at all times!

# James Sanderson, New River Middle School

James Sanderson taught Marine Science and Science at New River Middle until last year when he retired, but that has not stopped him from continuing to educate our students. He is always willing to participate with our school in various events including International Coastal Clean up, Waterway Clean up, and Plywood Regatta. Jim demonstrates his creativity mostly through his diverse activities and promoting environmentally friendly practices, but he also shows it through his lessons and guided



discussions with students. His passion for the marine environment and education continues and our school, students, and staff have benefited greatly this year from his continued dedication to marine education and stewardship.



# Dave Skula, McArthur High School

Dave Skula promotes the understanding of concepts, issues, feelings, values and attitudes at the core of environmental issues here at McArthur. Through his work, he advocates civic responsibility, encourages students to use their knowledge, personal skills and assessment of issues as a base-line for problem solving skills. He attends workshops, seminars and conferences to learn best practices and eco-friendly issues. Working cooperatively with peers he has been able to use the students' strengths and skills to get the most beautiful landscape

presentations in the county done.

# SCHOOL NOMINEES

# **All Categories:**

#### **McArthur High School**

The way McArthur is representative of a P3 school in its Preserving our Planet for Posterity is done the following ways: We have outdoor learning laboratories and have started a habitat Improvement and restoration. Our outdoor Learning Laboratories consist of our workshop outside of our classroom, our Shade House; where we propagate as well as plant seedlings. We also have a greenhouse where we propagate as well as weed and are beginning to grow produce through aquaponics and hydroponics. In School Sustainability, Our administration has reviewed our energy use and conversation practices at the classroom level. Students and instructor alike are aware of leaving lights off when leaving a room or area, including bathrooms and storerooms. We are in the beginning stages of recycling as we just won a grant from Recycle Bank. The agriculture Instructor has made students aware of energy use and students have reminded instructor of same. Students are attempting to implement solar power and storage to sustain power to air compressors and air pumps. Students are made aware of water usage and continue to work with instructor to make every effort to reduce water consumption. Students are in the midst of building their aquaponics and retrofitting their hydroponics systems. Both use an amount certain of water with little or no replenishment. Solid Waste is at issue with recycling bins are located in prominent places. Air Quality and Transportation are discussed as ways to reduce emissions. Buses are provided a certain passageway that keeps them separate from regular parent drop-off and pick-up driving loop and school personnel have their separate entrance and exit to their respective parking spaces. Visitors and administration are also regulated by an actual traffic light. Curriculum Integration occurs at an interdisciplinary approach including Environmental issues and Field Studies. Administrative support is expressed at School Advisory Committee meetings and participated in Earth Day activities. Administration supports staff for Professional Development, which this writer regularly participates in. Green school activities are planned. Green Strengths and weaknesses are identified. Sharing Success is shared with Elementary and Middle Schools. Projects are published in school newspaper, Bulletin Board and Yearbook. Innovation: Special Project s include Greenhouse designed for aquaponics and hydroponics to grow vegetables and fruit for student community, adjacent community and to the wholesale community

#### **Ramblewood Elementary School**

At Ramblewood Elementary School, we started a brand new garden, which has 5 garden beds, 20 gardens in a bag (a new innovative way to garden) and have the year with over 200 students and faculty who came together for our 2nd annual Peace, Love & Pride Day school enhancement Day and opening of our new Children's Garden in November of 2013! This is our 2nd year of planting, growing and maintaining 5 raised garden beds, using cinderblocks. The garden area is located outside of the cafeteria in by our outdoor learning Lab. We have 3 picnic tables for the students to use for journaling. We have recently written a grant to try and get a covered learning station, where teachers can have utility bins for supplies and a dry erase board for teaching the lessons. In addition to all the community supporters who help at the garden, we also have 7 teachers, who have joined with their classes this year to teach gardening at our Outdoor Learning Station. More are interested in joining next year! There are a total of 120 students participating on a weekly basis. Other classes have started mini gardens outside of their classrooms. They have witnessed the benefits of gardening with their ESE students, who learn best through doing! This year, we have had much success with growing in our first year! We have served over 300 mixed green salads this year, which include vegetables and herbs, such as sweet

peppers, tomatoes, parsley, snap peas, red leaf lettuce, carrots, corn, green tea, Rosemary, basil, edible flowers, and more! We have also made green mint tea for the students to drink and enjoy! Our teachers are making sure that our Title1 students learn all they can about healthy food and nutrition, while teaching STEM Science through working on all phases of the garden (Planting seeds, maintaining and watering plants, transplanting, pruning and harvesting). All teachers are being led by Lynn Walsh, kindergarten teacher at Ramblewood, who regularly meets with the teachers to support their efforts, supply them with all the tools and materials they need, as well as the garden gloves and outdoor supplies. Ms. Walsh has posted her 9-week Project Based Learning Plan (STEM) on CAB Conference for all Broward County Teachers to access and start gardens of their own (see the innovation section for more information).

#### **South Plantation High School**

South Plantation High School's Environmental Science Magnet program created three new outdoor learning labs to enhance students' connection to the environment and extend our National Wildlife Federation Certified Habitat and Florida Friendly Yard areas. The first learning lab we installed was a monarch waystation. Currently, the waystation is awaiting certification from Monarch Watch. The second learning lab was a new organic vegetable garden using grow bags to demonstrate the viability of local food production in environmentally friendly ways. In the third endeavor, called Project Green, students surveyed school grounds and are making plans to renovate areas to decrease the prevalence of exotics and increase the abundance of xeriscape-friendly native species. Ecology students have created a Farm to Table program. The existing garden beds were refurbished with new soil and borders. Students researched crop choices, and planted kale, green beans, tomatoes, cucumbers, and squash. Sustainability is a key component of the Environmental Science Magnet Program. The motto that has been adopted to promote positive change on campus is "we are all connected so we are all affected." In an effort to improve our planet and implement positive change, a solar array was installed on the east side of the magnet building. The array runs daily and to date, we have saved 32.000 lbs of CO2 emissions. A solar and engineering course exists whereby students can earn industry certification and college credits. The after school club associated with this program has enabled members to build and race solar cars in national competitions. Water conservation is a key component of sustainability. Students designed and built a solar irrigation system for the food gardens. The water for the irrigation system is collected from the roof of the Magnet Building and stored in rain barrels. Teachers and students annually attend Water Matters Day. School-wide recycling is a big part of our service learning component. Students participate in the Air Awareness Poster Contest. For the second year in a row, students have performed well and earned a place in the published calendar. Students have demonstrated their mastery of air pollution and its impacts through their participation in the Fairchild Challenge Debates. Winners from our school presented arguments in favor of food waste recycling to reduce methane emissions. Sustainability is a core value of the Environmental Science Magnet Program. Each year, magnet seniors demonstrate knowledge and understanding of society's impact on the natural world by completing a senior project. This project is a culmination of their four years in the magnet program. This year several projects demonstrated an emphasis on reducing energy consumption, water resources conservation, and solid waste reduction. Several of these projects are documented via Youtube videos. In addition, real-life application of classroom instruction is accomplished, in part, through active participation from community partners. Students participate in environmentally themed field trips throughout their 4 years in the Magnet Program. Follow up activities challenge them to deepen their understanding of how human interactions with those environments can either or help or hinder that natural world. The Magnet program vision is to empower students to compete in a global marketplace in environmental science and technology, and to prepare students for real-world experiences including restoring Florida's Everglades. This year's motto is The Power of One; One Team One Purpose, One Passion. The real world application of using

citizen science to enhance our environmental activities teaches students that their input matters!

# **Tequesta Trace Middle School**

Tequesta Trace Middle School has embraced a school-wide theme this year of being "Eco-Partners!" The staff and students have committed to making our campus and community more sustainable and environmentally friendly. We have recycling, monthly environmental topics, and expanded our environmental curriculum. At the beginning of the year, the tone was set when students and their families created School Spirit Posters out of recycled materials. Meetings with students, parents, teachers and administrators helped plan and kick off the program. There are multiple clubs involving over 200 students that work to protect the Earth. One example is the Environmental Committee of the Junior Honor Society who address School Sustainability. This group meets weekly with the Heroes Club to manage the recycling, pick up trash and to work gardens. They sponsored a fun "Eco-Recyclebration" party for students who recycle in each classroom called "Eco-Ambassadors." These amazing Eco-Ambassadors" showed their 6th hour class how to recycle correctly using the "Do and Do Not" posters hanging over the recycling recycling bins around the entire school. Each classroom and office has an "Eco-Door Decorator" which helps monitor the friendly competition to see who is doing a better job at that month's Eco-challenge! For example, counts were done to see which classes had the most reusable water bottles- boy have we improved since the beginning of the year! Stickers are placed on the door decorator to identify the students and staff who participate, such as classrooms who keep an eve out for Energy Vampires or who recycle the testing manuals when no longer needed! Mints were given to a large number of eco heroes who use reusable bags too!

# Wilton Manors Elementary

Wilton Manors Elementary is an exemplary P3 Green School that is taking action to protect and preserve our environment. Students and staff directly participate in green initiatives that strive to optimize environmentally sustainable conservation, and encourages community partnerships and involvement. Through this, it is our hope to set our students on a path to global citizenship through environmental action and awareness. Our school grounds are a place where students can interact with native plants through observation and measurement, and improve the sustainability of the school as a whole. Our school-wide beautification projects follow the path to making our community an example for sustainability, recycling and environmental preservation. Our campus courtyard serves as an outside learning lab for all students, Pre-K through 5th grade. Additionally, our school's Butterfly Garden was recognized by the National Wildlife Fund's Eco-schools School Yard Habitat award. We have also been approved for the NWF Eco-Schools Pathways. Our school strives for optimal sustainability by conserving energy through monitored and careful allocation and use of resources including energy, water and solid waste. Students and staff attended the Water Maters Day hosted by NatureScape, where we presented county recipients with the Emerald Award created by our school's art teacher and Art Club members. They brought back drought resistant trees, native to the area to enhance our school's campus. The entire school and surrounding community has spent the last several months working on mosaics that encompass our school's character education program as well as the IB Learner Profile attributes. Once completed, these mosaics will eliminate the need for additional paint that could potentially introduce chemicals that are harmful to our students and garden areas. Our school's head custodian attended the NatureScape Broward Custodial Training on water usage to best inform our conservation efforts in this area. A special project was recently completed by Kindergarten and 4th grade classes that used the Flying Classroom lesson designed to combat food waste. After the project, the students shared their findings with the school. They also brainstormed ideas for eliminating food waste from our own cafeteria, and students made posters to display in our school. Their ideas

included separating and sorting food from the garbage in the cafeteria to have a measurable idea of how much food is wasted by our student body each day.

# Wingate Oaks Center

The mission of Wingate Oaks Center is to: "Teach the skills of life to open a world of opportunity." We believe in providing a positive learning environment to enhance each student's sense of identity. self-worth, and individual potential; that high expectations lead to positive growth and that all our students have a valuable contribution to make to society. We believe in open lines of communication between parents, staff, and school and that all efforts should be directed toward assuring that each student will become a more independent member of society and so it is the goal of the staff and community to provide a positive learning environment so each student should will able to live a productive and fulfilling life within the community. Wingate Oaks Center is a self-contained, Exceptional Student Education (ESE) public day school located in an urban setting within the Broward County School District, servicing students with Intellectual Disabilities from Kindergarten to age 22. Wingate Oaks Center serves students with multiple cognitive and physical impairments, many of whom are on the Autism Spectrum. Along with intellectual delays, a number of students have additional challenges such as vision, hearing and gross/fine motor loss. A majority of the population is non-verbal, and those who do have spoken language have limited vocabularies. Instruction must be delivered in a highly structured, organized and adapted setting, with continual supervision to assist with student participation and personal safety during behavioral outbursts, which occur often. Many students have more than one disability, thus specialized curriculum, unique learning materials and adaptations are necessary for instruction. Academic benchmarks are taught through differentiated instruction, capitalizing on individual interests, competencies and ability levels. In addition to content instruction, adaptive Art and P.E. are part of the curriculum, with significant modifications to accommodate the functioning level of each student. With the use of state of the art assistive technology, our students participate in activities emphasizing academics, communication, activities of daily living, and social and vocational skills. Our highly qualified and dedicated staff is unique in that they are provided with training, coaching, and mentoring while delivering instruction daily. The research and learning is seamless for the students, faculty, and staff at Wingate Oaks Center. Our belief is that all students can learn!

# **Categories:**

# Bright Horizons Center School - Categories 1, 2, and 4

The Bright Garden Project is a school-wide initiative to create gardens that are accessible for all our students. Bright Horizons Center School is a Broward County public school dedicated to the enrichment, education and therapy of students with severe disabilities such as Autism, intellectual disabilities and the medically fragile. Our school serves students from kindergarten to age 22. Our goal for this project was to provide all of our students, their families, staff and the community with sustainable nature-based settings that not only enhance the lives of our students, staff and community, but also provides food, habitats and water sources for native birds, insects, and animals. Two years ago, our Bright Garden Project committee transformed a 5,900 square foot barren courtyard into an outdoor classroom-learning lab. The focus of this garden area is to have an outdoor classroom where our students have the opportunity to meet academic goals through the use of nature. Using our outdoor classroom to teach life science, environmental science, math, reading etc...Is so much more meaningful through real life experiences in nature than teaching these concepts in an indoor classroom. For example, repeated counting of cocoons or ladybugs is much more engaging than learning to count objects indoors. Our garden is intended to be a motivating setting where our students are able to work

on individual and group goals that are both intellectual and physical. The garden is a stimulating environment where students work on additional goals and concepts such as choice making, taking turns, sharing and collaborating. It is a nature-based setting where students and therapists can concentrate on promoting socialization, communication, emotional stability and sensory processing disorder mitigation, which are all crucial components for our students' growth and success. Within this garden is a large sensory garden, all handicap accessible, where students have an opportunity to taste, smell, touch and see things that most have not experienced and are a result of their labor. Our goal is to provide a stress free environment where students can work to increase their strength, endurance, and range of motion as well as academic skills. To give them an opportunity to create something they can share with their families and others in our community. This year, we are working to expand its functionality by adding wheelchair accessible picnic tables, benches and shade features. This year, we have succeeded in adding four 10-foot benches and a wheelchair accessible picnic table. We are currently writing grants to purchase permanent shade features and one more wheelchair accessible picnic table. We were also awarded a grant this school year through the Youth Environmental Alliance that provided the garden with additional native plants, which improved the food and safe habitat sources for native birds and insects. This school year, we also expanded an "Urban Farm" garden where students grow and harvest fruits and vegetables such as pole beans, okra, papayas, pineapple, herbs, bananas, peppers, tomatoes and greens. The Urban Farm focuses on teaching students agricultural skills that they can generalize outside of school, giving them tools that they might otherwise never have. We also use the garden to reach academic goals.

#### **Driftwood Middle School – Categories 4 and 5**

Driftwood Middle School started the Green Team in November 2008. The team consisted of three teachers and three students. Today's DMS Green Team is a major part of the school culture. We have administration support from Mr. Williams, our principal and we have incredible teachers that integrate an environmental curriculum into their classrooms. Our custodial staff and cafeteria staff are extremely important for all our initiatives to actually manifest at school. Our community and non-community partnerships support our always expanding environmental program With the all the support within the school and outside Driftwood Middle school has one of the top environmental programs in the nation. Driftwood has many different traditions and partnerships in place that are earth friendly. A few of these are: Recycling, Energy conservation, Water conservation, Clean air initiative, Wildlife preservation and rescue, Environmental Literacy and Education, Environmental Partnerships, Community Involvement, Administration Support, Staff Development, etc. The only change at DMS is we keep expanding our environmental program. Most of our faculty realizes the honor of being a US DOE Green Ribbon School and many of our initiatives are grounded in being environmentally friendly. Our partnerships within Driftwood are many ranging from teacher to student, student to custodial and faculty to the community. Our Green Team and environmental classes engage many of their peers in environmentally practices such as recycling in the classroom, energy conservation, managing the gardens and wildlife rescues. Our students get a better understanding of the environment when our own students mirror healthy earth friendly practices. Our middle school students bring their knowledge to the younger ones coming into Driftwood and go next store to our neighboring elementary school. Our students teach them about protecting and valuing resources important to the food supply and society. Driftwood hosted the ASU Walton National Sustainability Teachers' Academy. Our administration, faculty and students are committed to inspiring other schools to also teach and bring back best practices to their schools. We had Broward's County's top environmentalist such as specialist from recycling, water, energy and Naturescape. DMS had our very own student Green Team specialist lead the campus tour. There were 35 teachers that participated in the sustainability academy in the fall. Everything is possible because of our administration. Without Mr. William's trust and support nothing at Driftwood would flow so easily and successfully. A school

needs the support and cooperation from everyone. At Driftwood we are a family that happens to believe in the beauty of creating a healthy and happy environment. That means a positive environment in which everything is possible from the overall health of person to the mental and emotional aspect of the whole person. It is important for the environment in which we create a healthy future. Driftwood is committed to raising environmental stewards for a healthy tomorrow!

# **Griffin Elementary School – Category 1**

At Griffin Elementary we have an environmental area, which consists of a fenced in area with native and non-native trees and shrubs, a winding sidewalk, along with a pavilion with picnic tables. Over the summer we were awarded a grant for \$1000 to restore our environmental area, build concrete raised beds, and make it more of an outdoor classroom. We want to make it a more welcoming place for students to observe nature and learn. With the grant we purchased soil, concrete blocks, leveling sand, and seeds. Also, we used the \$500 grant we received from the National Wildlife Federation to purchase gutters (for our pavilion) and additional native plants that attracts butterflies and birds. We installed a rain barrel and gutters along the edge of the pavilion, so that we could harvest our own water for our garden. In order to make our environmental area more interactive, we created an account on PlantMaps, a community website to host plant collections for anyone interested in plants, gardens, landscapes, and green spaces of all types and sizes. They provide interactive signs for each plant, with a QR code that links to the plant information on the website. We are in the process of purchasing the interactive signs for our garden. Also, we created our own OR codes for each tree in the environmental area. When scanned it brings the students to a webpage on the University of Florida plant database, showing them pictures and providing background information on each tree. These improvements will help us reach our "school grounds" pathway goal and provide teachers with a great outdoor space, conducive to learning. We applied to participate in the National Wildlife Federation Eco Schools Taiwan project for year two.

### Lake Forest Elementary School – Category 5

Lake Forest Elementary has been a representative and model of a P3 school for the past 4 years. Environmental activities have been at the forefront as each student in the school, ages 3 through 5th grade, participates in gardening as part of their science activity rotation. Having the entire school participate in outdoor lessons fosters student awareness of the school as an important National Wildlife Federation habitat and makes our school a unique model of what perseverance and determination can accomplish. Our outdoor campus classroom is utilized through a variety of tools and learning activities to instruct all students. Not only are the outdoor areas used to collect data for Citizen Science programs, such as identifying clouds and documenting soil temperature, but also Readers' Theatre plays are enacted on our outdoor stage, with many science lessons conducted in one of our 9 gardening beds. Our outdoor stage is in close proximity to one of our 2 butterfly gardens, allowing science activity classes to observe butterflies in their natural habitat, along with other native birds (egrets, ibis, and warblers) and mammals (opossums, raccoons, and foxes) and a few snakes thrown in for good measure. All lessons are differentiated to grade level, learning styles, and disability with hands-on undertakings connected to real life situations. A variety of student projects are completed outside.

### Liberty Elementary School – Category 1

Liberty Elementary STEM Museum Magnet School has completely re-designed their school garden/outdoor classroom area in the recent years. We are representative of a P3 school in the areas of enhancing our school grounds and curriculum. We have received several grants over the last couple of years that helped us increase the size of our school garden/outdoor classroom. What makes our school unique is in the usage of gardens, how they are incorporated into the classroom curriculum across

different subject areas, as well as the type of gardens we have on campus for our students to learn with. In recent years, we have increased the number of garden beds, introduced garden "sticks" (to help teach gardening in urban areas), and even added garden "bags" to our extensive outdoor classroom. We have made our garden an area conducive to learning and field experiences by also providing tables for students to work at in the gardens and outdoor bulletin boards to showcase reference materials and student work. We are also representative of a P3 school in that several of our teachers have taken it upon themselves to incorporate gardening activities/learning into their quarterly STEM projects, field trips, and their own learning by participating in several gardening workshops offered through the district. All learning taking place in our gardens provide students with the opportunity to be 100% involved in their projects. The projects are student-centered with the children completing the work with the guidance of their teacher. The students do all of the planting, caring for the plants, documentation of plant growth and harvesting of the food. Students use the gardens as part of their quarterly STEM projects. Students not only plant their crops, care for the plants, harvest the plants, but also create some type of food to present during the magnet showcase nights for parents to taste. The students are truly 100% engaged in the full process of the activities related to using the gardens.

# Lyons Creek Middle School – Categories 1, 3, 4, and 5

Lyons Creek Middle school, we not only plan to have the best education in Broward County but also aim to have the best campus for our students with the Environmental club we are making this happen one step at a time. In the past years we have implemented a vegetable garden so that the teachers and students can have fresh "FREE" produce to take home or enjoy on campus. With the help of our many sponsors we are really making a difference. This year we are allowing our members adopt an area around the school to beautify, during this task members are learning about the basic requirements for caring for plants along with the environment. Our club host several fundraiser throughout the school year, maintains a booth at the Coconut Creek annual Butterfly Festival. Through all these activities, members learn about taking care of the environment, but importantly they learn how to become leaders. If we get everyone involved, then we all take accountability. We host a Jazz in the Garden festival teacher sautéed, peppers, tomatoes and broccoli from the garden to add as topping for our pizza. The rest was shared with the faculty, most used it as a fresh toppings for their daily salad Our club is currently preparing for the upcoming campus cleanup and is also harvesting. We continue to participate in the beach cleanup and await new volunteer opportunities.

# Maplewood Elementary School – Categories 1, 2, 3, and 5

Maplewood Elementary School received a solar array from Florida Power and Light this year. This new solar array has opened the door for academic lessons on a variety of alternative energy sources. Students have worked together to maintain many gardens including vegetable gardens, a sensory garden and butterfly garden. Students enjoy reading in the school's reading garden. Students have worked in the garden composting debris and watching the compost turn into new soil. Kindergarten to 5th grade and aftercare students have been a part of caring for the school grounds by harvesting the produce of plants such as limes, bananas and papayas that are not a part of the main garden. Maplewood Elementary School is continuing to work towards school sustainability in many ways. Maplewood is participating in the Miami Heat "How Low Can You Go" Challenge. In addition, Maplewood students are learning about school sustainability from the problem based learning activities they are involved with. In STEM classes, students are taught the "Reduce, Reuse, Recycle" process and how it effects everything around them. They have been participating in engineering PBLs throughout the year that utilize recycled material. Curriculum is integrated through the use of outdoor investigations, and STEAM electives. The art program has used the garden in many ways to create works of art that apply to the curriculum. Many classes have incorporated the importance of recycling into their lessons. Our school principal, Sherry Bees, has been an integral part of our school's green initiatives. Maplewood Elementary School has an annual Peace, Love and Pride Community Day. Mrs. Bees has supported our green initiatives by contacting partners, conducting meetings, offering trainings, and following through with the planned goals of the green team and school.

#### **New River Middle School – Category 5**

New River Middle School is a Marine Science Magnet Program with a goal of exposing our students to environmental issues and fostering marine stewardship. Our goal is for our students to become proactive in their community and on campus to positively impact their environment. We do a number of different green and marine related activities in our community and on campus and our administration supports all of our endeavors to achieve our goals. Our administration, specifically lead by our principal, Ms. Wessinger, supports all green/marine science activities and helps by seeking out environmental projects and grants that are offered to enhance student learning and engagement. All of our activities that engage our students in their community and natural environment including community service projects and field experiences are encouraged. The administration at NRMS is very active in all the activities that promote stewardship and will attend all our functions and participate in in International Beach Clean up and Waterway Clean up. They also support and encourage the opportunity for field experiences to various South Florida ecosystems including snorkeling, canoeing, and kayaking to learn about the local ecosystems and how students can preserve and protect them. Administration encourages teachers to implement projects and hands-on learning activities that incorporate environmental awareness and stewardship into their curriculum. This is achieved by allowing teachers opportunities to participate in professional learning communities (PLC) through the year. Professional Development is also an opportunity for administration to support and promote green/marine school projects and education. In our Marine Science Professional Learning Community (PLC) meetings, which take place on biweekly basis, we address various activities that focus on environmentally friendly practices and getting our kids involved in their community. Many of our science teachers participate in professional development including Bioscape and NatureScape training, along with interdisciplinary training for Globe Life Program through the Department of Environmental Protection. Some examples of classroom and club activities that promote green activities on campus include our butterfly and vegetable garden. Project LIFE participation at both Birch and John U. Lloyd State Parks, along with a Ozone/Carbon Monitoring initiative looking at our schools carbon footprint.

### North Fork Elementary School – Category 1

North Fork Elementary is quite a unique find on Broward and 15th Avenue, a stone throw away from Downtown Fort Lauderdale. Our school resides next to a shallow, meandering tributary of the New River. Like many school we all face challenges with in our surroundings. Our North Fork Elementary populations are not always human. Our student body can attend school with Blue Land crabs marching down our open corridors, in addition to, one can see Florida's green lizard, the iguana, grazing on the lawn. This school year Principal Amaker stepped out of her confront zone and designed an enrichment group to our 400 elementary students. One of the activities was a gardening club for First through Fifth grade. Students were taught lessons from the parts of the plants to understanding the life cycle of flowering plants. Student involvement was evident from the onset, from the building of the planter boxes, to laying down the soil, to tending the gardens. As donations poured in from partners, Streamline Builders and Hands Across Broward. A few challenges began to arise. Our reptile population began feasting on our edible garden. As fencing material were ordered to protect the plants. As students began to make a connection from what was taught in the classroom to the working lab outside more and more students became apart of the initiative. A select number of students were, who

may need alternative behavior modification plans, were invited to tend to the garden. Students across grade levels learn to grow a diverse number of edible plants.

# Northeast High School – Categories 1, 2, and 4

Northeast High school has always been active in scientific endeavors and this includes a large emphasis on the environment. Our teachers collaborate and support one another, while providing our students with many activities and opportunities. We strive to increase scientific knowledge and to help develop leadership skills and sound decision-making skills in our students. This year we added a Dream in Green team to our school and did a number of new activities. The research class had a team of students enter and become finalists for the Samsung Solve contest. We have many community partnerships and partake in activities and projects with them. Our school has three outdoor learning labs; a butterfly garden, and two vegetable/flower gardens. The ecology club maintains the butterfly garden, which was developed from an area that had no plants. The butterfly garden contains native species and adds new plants yearly. The students chose what plants go in the butterfly garden and the layout of how they are planted. The Garden club grows vegetables year round and is entirely maintained and designed by the students. The second garden is one that was built and maintained by the science research classes and the ecology club/biotechnology classes. The research and biotechnology classes use the plants for experimental research contained within the curriculum of these courses. It is the sole responsibility of the students to take care of the plants. Service Learning Project: Finalists to the Samsung Solve competition, headed by teacher, Randa Flinn, Some of the community partnerships include: University of Florida IFAS, Davie, FL. We work with Dr. Monica Elliott, Dr. Robin Giblin-Davis, and Dr. Kim Moore, Nova Southeastern University, College of Pharmacy. Florida Atlantic University, College of Biological Sciences.Purdue University E.P.I.C.S. (Engineering Projects in Community Service). City of Oakland Park Horticulturist, Charles Livio. Participating in an Earth Day Planting program on April 13.

### **Royal Palm Elementary School – Categories 1, 3, and 5**

Royal Palm Elementary From Trash to Treasure is Royal Palm Elementary theme for the entire school year. This is something that the students learn as they begin the new school year, as well as the teachers, parents, and community business partners. The biggest accomplishment for Going Green at RPE has been the participation in the U.S. Eco-Schools Taiwan Partnership. Last year we trialed out the program at our school, but it wasn't until this past school year that the program took off. Ms. Hung, a National Habitat Wildlife Stewart and STEM/Science Coach had an opportunity to visit RPE's sister school in Taiwan this past summer. She had the chance to meet the administrator, teacher, and students that RPE had been working with for the past year. Being able to compare notes face to face was an amazing experience. Understanding firsthand what those students accomplish in environmental education is amazing. From sustainability to student efforts in being green, everyone on the school campus was involved. The travels were continued to other elementary, middle, and high schools as well as environmental parks. This was the inspiration that RPE would use to kick start its school year. We were really going to be exchanging ideas on a global level.

# Silver Shores Elementary School – Categories 1 and 3

Silver Shores Elementary (SSE) has a school wide commitment to promote a Green School initiative. We implemented a recycling program that has been in full force for many years. We have a garden that has provided numerous educational opportunities to the students. We recently created a butterfly habitat and continue to work with and explore the wildlife on our campus. Our grounds are NWF certified and we incorporate the Cornell Lab of Ornithology into the curriculum to a select group of students. We started an Eco Ranger Club this year to promote the three "R"'s (reduce, reuse, recycle)

and assist with educating students and staff how to be eco friendly. SSE has strong administration support as well as staff that all work together to create an environment that promotes sustainability. Silver Shores Elementary has engaged in STEM-related curriculum and activities to deepen students' understanding and teach them to be critical thinkers. Our school provides students a hands-on approach that brings the lessons of science, technology, engineering, math, reading, writing, and social studies, to life. Recycling, coding, gardening are some of the major areas that students learn and participate through real-life application. Silver Shores is very excited to continue to participate in the ongoing Green initiative. A priority at Silver Shores Elementary is to ensure that all students have an opportunity to explore beyond the four walls of the classroom. Incorporating STEM activities allows students to make new discoveries and to take their learning to another level of academic proficiency. Having a diverse and hands on curriculum helps the student be more accountable for their own learning and provides them a chance to have fun exploring new things. Through STEM-related activities, students at Silver Shores Elementary are afforded the opportunity to collaborate and explore. The schools main goal is to enhance the curriculum to the students so they can see and understanding the world through a new perspective as well as deepening their appreciation of the world around them. The ultimate objective is to provide a valuable real-world connections and lesson by bringing the curriculum to life.

### Silver Trail Middle School – Categories 1, 2, 3, and 4

Silver Trail Middle School is representative of a P3 School because we have worked together to create an environment that demonstrates a true concern for the environmental future. Students and teachers have worked together to create products and initiate plans to maintain our Butterfly Garden, start an Ecology club, create educational videos, and take field trips to learn from others. Our school is a part of innovative programming. The focus in Pre-AP Research. This year we decided to add the idea of spending time on researching and developing plans and products that bring environmental awareness to the forefront. Plans for adding to our Tree Canopy, providing community news and conducting more environmental education lessons was the focus for curriculum integration beginning in the science department. The school currently has a small butterfly garden close to the courtyard area of the school. Previously the garden was maintained by Girl Scout volunteers. This year, the school started an Ecology club that adopted the maintenance duties of the garden. In doing so, the butterfly area has become more visually pleasing and the students (club members) have done a wonderful job of researching and maintaining the area. This year, the goal was to increase the size of the school's tree canopy by using money from the Broward County Tree Preservation Tree Trust for the purchase of native trees to be installed on middle school campuses as part of the NatureScape "Carbon Capturing Canopy" project. Silver Trail decided on a "Habitat Heroes" theme for this school year. The entire student body was offered an opportunity to create a poster and/or teacher design to represent the themes of students protecting the environment. Teachers often use the court yard and the field to monitor cloud movement, use rain gauges, and monitor the butterfly gardens. 7th grade Life Science teachers use the grounds, courtyard and fields to do similar work but emphasize more on population studies and plants rather than looking to the sky although biotic and abiotic factors are essential to understand the reason for the certain activity in species populations. With the help of the National Wildlife Federation and Florida Power and Light, students and parents are provided with informational flyers for review during homeroom or at the end of the school day, which are then taken home to be shared with parents.

# Walter C. Young Middle School – Categories 1, 2, and 6

What makes Walter C. Young an unique and successful school in the efforts to be sustainable is that we do our best to participates in ongoing activities and practices that allow the school to engage all

student. Our school likes to participate in different Broward County initiatives like Energy conservation, water conservation, and recycling. We are also participating in different Science Citizen projects: GLOBE, BirdSleuth, and NWF. Students participate in different clubs that allow them to engage in different outdoor activities. For example, the Young Knight Environmental Club works closely with our custodial crew to keep our grounds beautiful. Students meet every Friday morning to do gardening, clean-up, and recycling. Administration, teachers, and staff are well aware of the importance of teaching and giving students opportunities to learn and use environmental practices that will be beneficial for them. The front office collects the ink cartridges and encourages parents to participate in this effort. Our main goal at Walter C. Young Middle is to teach all our students the importance of living a sustainable life. Walter C. Young middle school grounds are used by students, staff, and teachers as a learning environment. Students at Walter C. Young participate every Friday in different activities that promote and maintained the school grounds. Students, teachers, and staffs have worked together to keep the campus clean and beautiful. We also have parents and staff that donate plants, mulch and their time to participate in the outdoor activities. Teachers use the school grounds for different learning activities like reading outside the classroom, using the outdoors to complete a lab, gardening and connecting students with the school wildlife environment. Teachers, students and staff continue to maintain and enhance native landscapes/habitats. The front of the school, and buildings 5 and 7 are a great example of the native landscape/habitats at the school. Walter C. Young is participating in a citizen science project. Citizen science projects allow the students to collect real data and collaborate with scientists to help with their research projects. The following are the two citizens science projects that students at Walter C. young are implementing and working on: Cornell Lab of Ornithology: BirdSleuth K-12 and GLOBE. Students from different grades are participating is these projects. Students meet during the mornings and during their lunch. The goal of these projects is give students the opportunity to explore and be steward of their environment. Students collect real data that they can share with a community of scientists. They use different methods to collect data, pictures, table, computers, and their cell phones.

#### Westglades Middle School – Category 3

Westglades Middle School is certainly a "green" minded school in many ways. We are lead by our P3 Eco-Challenge Administrator of the Year in 2012, Mr. Jack Vesey. He continues to further the sustainability practices of the school by supporting the hydroponics garden, allowing staff to participate in trainings and rearranging testing schedules to accommodate the (WEST) Environmental Club's participation in the county's own environmental symposium. Westglades has an excellent recycling program that is run through peer counselors that shows collaboration among teachers and students. Westglades is currently working on completing the School Grounds and Biodiversity Pathway for the NWF US-Taiwan Eco-Schools Program. Overall Westglades has an excellent track record of being a sustainable school from motion sensor lights to native and drought tolerant plants and trees on campus. For Category I, Westglades boasts a state of the art hydroponics garden system that provides hands on learning for the 7th and 8th grade Environmental Science classes. Students are involved in the progression from seed to harvest of many fruits and vegetables including kale, lettuce varieties, peppers and strawberries to name a few. The Westglades Environmental and Sustainability Team has made improvements to the butterfly garden by transplanting milkweeds from around campus to one large patch in the butterfly garden. This was an essential part of our partnership with Guandu Junior High for the NWF US-Taiwan Eco-School Biodiversity and School Grounds Pathway project. For Category II, the Peer Counselors follow a strict routine of collecting recyclable materials from each classroom twice a week. All classrooms are fitted with motion sensor lights and plants on campus are native and/or drought tolerant to reduce water use. The hydroponics system is the most water efficient way to water fruits and vegetables. For Category III, Westglades uses its facilities to integrate curriculum. The hydroponics garden houses the Environmental Science courses and provides some

reinforcement for the 7th grade science standards covering germination and cell division. Westglades is the only Middle School in Broward to be working on a NWF Eco-School Biodiversity and School Grounds Pathway as well. Since the school is considered a NWF Wildlife Habitat as well as the Centennial Garden, it provides plenty of outdoor biodiversity that can be used for projects such as surveys, upgrades or grants to continue the use of grounds. For Category IV, The Westglades Environmental and Sustainability Team participates in many outreach and education events. The club sponsor teaches 6th grade science, and the other sponsor is a 6th grade History teacher and we share many students. Our club is participating in the Broward County Student centered Environmental Symposium (SOS) that requires a 20-minute presentation of our ongoing milkweed propagation project. For Category V, Westglades has the 2012 P3 Eco Challenge Administrator of the Year, Mr. Jack Vesey. His continued commitment to the school's sustainability and "green" practices is as strong as ever and it shows around campus.

#### Whispering Pines School – Category 5

Whispering Pines School (WPS) is an Exceptional Student Education Center. The school serves students with emotional/behavioral disabilities who are in kindergarten through age twenty-two. WPS has six formal gardens/outdoor learning labs, targeted to address the diverse needs of our students. The theme of our garden is "Green Space Therapy"; however, our gardens are labs fully integrated with the school curriculum. Participants are enrolled in career preparation courses and use the lab as a forum to practice skills. In the horticulture lab, students use vertical gardening systems, raised beds and pots to grow fruits, vegetables, herbs and ornamental plants. The culinary program uses the fruits, herbs and vegetables to showcase farm to table healthy eating. Ornamental plants are used in campus/community beautification and throughout our tranquility gardens. The tranquility gardens reflect our dedication to Green Space Therapy and are a space for WPS mental health therapists to hold sessions/groups addressing emotional issues. Garden design is focused on accessibility as many students are on psychotropic medication and must have limited sun exposure. Individual needs of students are accounted for throughout the garden so everyone who participates in the lab has a specific and integral task. WPS is involved with members of the community who advocate for a greener tomorrow. WPS was awarded the Whole Foods Community Garden Grant. We are thrilled to increase our raised beds, growing tables and vertical gardens using these funds to offer more space and opportunities to our student body population. The increase in plant stock will provide more families with fresh fruits, herbs and veggies to take home. The Youth Environmental Alliance (YEA) has partnered with WPS to establish a Centennial Garden. The YEA provided students with hands on lessons on butterflies found in Florida and students had the opportunity to learn about the plants the butterflies are attracted to. Students also participated in a program called, "The Wonderful World of Wiggly Worm". Through this program, students explored worms as they can lead humans to create healthy alternatives to fertilizers, pesticides, plastics and processed foods. WPS embraces environmentally sound practices in an effort to reduce consumption of energy, paper, food, water and other resources. We are a "work in progress"; however, we remain focused on becoming a community model for more sustainable patterns of development. Through the horticulture program, staff and students seek to change status quo practices that are wasteful and harmful to Earth while establishing environmental awareness, efficiency and teaching by example.