



**School Nominee Presentation Form**

**ELIGIBILITY CERTIFICATIONS**

**School and District's Certifications**

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades Pre-K-12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

**U.S. Department of Education Green Ribbon Schools 2015-2018**

Public    Charter    Title I    Magnet    Private    Independent    Rural

Name of Principal: Mr. Raul Calzadilla, Jr.

Official School Name: Air Base K-8 Center

Official School Name Mailing Address: 12829 S.W. 272 Street, Homestead, Florida 33032

County: Dade                      State School Code Number: 0041

Telephone: (305) 258-3676   Fax: (305) 258-7241

Web site/URL: <https://www.airbasek8.net/>

E-mail: [rcalzadilla@dadeschools.net](mailto:rcalzadilla@dadeschools.net)

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

\_\_\_\_\_  
 (Principal's Signature)

Date: January 9, 2016



Name of Superintendent: Mr. Alberto M. Carvalho

District Name: Dade

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

(Superintendent's Signature) Date:

District Name:

**Nominating Authority's Certifications**

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

- 1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: Florida Department of Education

Name of Nominating Authority: Commissioner Pam Stewart

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

(Nominating Authority's Signature) Date: 1/24/17

**SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS**

Provide a coherent summary that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only schools that document progress in every Pillar and Element can be considered for this award.

**SUBMISSION**

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509
Expiration Date: March 31, 2018

**Public Burden Statement**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

## **Air Base K-8 Center's Highlight Report**

### **Educate, Inspire and Empower to Think Green, Do Green, Be Green**

Air Base K-8 Center has earned the Florida Green School Award along with many other national, state and local awards and recognitions. Our participation in Dade County's Dream in Green Program has provided hands-on environmental learning experiences and opened doors to many unique learning opportunities. The World Climate Change Project, a White House Initiative, is a once-in-a-lifetime event sponsored by the Frost Museum of Science, University of Miami and Dream in Green. Air Base K-8 Center was one of only seven schools chosen to mentor high school students representing countries as they addressed real-world problems related to climate change by reducing CO2 levels. A computer simulation program demonstrated the issues being negotiated at the COP21 Climate Change Talks in Paris, France. Another example of Air Base K-8 Center's green leadership is when our school was the only one chosen in our district to present at the Recycling Energy Forum/Expo held at Florida International University.

Green kick-off assemblies are held at the start of the school year featuring energy efficiency, water conservation and reducing waste/recycling initiatives. This kick-off is presented by students and teachers via skits, songs and a PowerPoint presentation. Local and global problems/solutions are explored. Following the kick-off, everyone creates their Green Promise and places it on display as a reminder to act on their pledge and features our school's unified vision of sustainability.

Air Base K-8 Center's green journey began with our Green Team Club students wanting to have a positive impact on the environment. Built in 1958, before air conditioning, there are 80 large (22" x 24") air vents. Our Air Vent Sealing Project was completed for free by maintenance who volunteered their time and materials. Every year our Environmental Ambassador Club seals gaps in jalousie windows with plastic wrap, cord and Styrofoam. Our Green Ranger Program features daily green behaviors that address energy efficiency, water conservation and waste reduction/recycling to institutionalize daily green habits. Another example of positive environmental impact is our Cool Roof Project where the district collaborated with Florida International University, Florida Power & Light and Ernst & Young, again at no cost to our school.

Recycling is a priority at Air Base K-8 Center. We recycle plastic bottles and aluminum cans through the Pepsico Recycle Rally which benefits veterans. The collection efforts also include: electronic equipment, small electronics, printer ink, juice pouches, cartons and paper/cardboard. This year we are also collecting shoes for children in Africa for reuse. Recycled objects are used creatively in cultural activities, art, and content areas.

The No Plastic Is Fantastic Campaign resulted in halting the use of plastic bags for milk and juice for all meals. In addition, styrofoam lunch food trays were replaced with compostable trays. So far we have eliminated the use of 279,760 plastic bags and 31,050 trays. Our school has been designated as the Carton and Compostable Plate Pilot for the district. Two green hand dryers have eliminated 7,302 lbs. of waste. Two water bottle filling stations were also purchased via fundraising and grants, greatly reducing the amount of plastic bottles.

Healthy food means a healthy school family. The health and wellness of our school family is paramount and demonstrated through being designated as two time awardees for the national HealthierUS School Challenge: Smarter Lunchrooms and Let's Move Active School awards. Healthy snacks are offered during faculty meetings, as a fundraiser and in our vending machines. Our organic gardens are maintained by the students, teachers and parent volunteers. Many families have become inspired, starting their own

## Air Base K-8 Center's Highlight Report

organic gardens and leading to a more sustainable way of life. Garden grants are offered through the monetary awards earned through our award winning participation in the Fairchild Challenge Program.

Environmental literacy is infused into our curriculum in a myriad of ways and supported by our Green Partners who educate our school and surrounding community about sustainability. At our Green Education Fair, Green Partners from community organizations and educational institutions are invited to share their environmental expertise. Topics range from green energies, water conservation, recycling, native ecosystems, organic gardening, green buildings, wildlife conservation, green careers and more.

The Deering Estate's *Nurturing Environmental Stewards for Today and Tomorrow (NESTT)* program teaches environmental lessons on-site and off-site. A culminating activity was aided by Deering and Kohl's. Volunteers and students created a map of the U.S. with items collected at a mangrove clean-up as part of a NESTT lesson. The students titled it "United Trashing of America". In true Air Base fashion, we turned this problem into a solution, becoming our theme for the following year, "United Greening of America". Air Base K-8 Center students presented to our City Council and Mayor regarding our school's environmental initiatives. As a result of this visibility, Homestead Air Reserve Base (HARB) now hosts our Environmental Ambassador Club annual field trips.

In Science, STEM concepts are taught through the lens of sustaining Earth's resources and the impacts of our actions in the environment. Edible plants similar to the plants found on NASA's International Space Station are being grown through the Fairchild Challenge Program. Critical thinking classes explore solar and wind energy. Our students take on leadership roles as they present in the community and to their peers. Students are interacting with students in other schools and countries, learning it is the responsibility of us all to be environmental advocates. Sustainability is not just taught at school, but for life-long learning.

This learning also occurs in our outdoor classroom, butterfly gardens, wildflower meadow and organic gardens. These gardens, accredited with five wildlife certifications, have become living laboratories. Our students are engaged in the Atala Butterfly and Coontie Ecosystem Restoration Project and active research of an endangered bat. Water conservation practices include rain barrels, mulching and planting native plants and trees. We have successfully spearheaded an effort to get a natural area designated as a protected Pine Rockland and permission has been granted for us to use this site. This will be accomplished via collaborations with our Green Partners.

Earth Hour, Green Apple Day of Service, Earth Day and community eco-events provide additional civic engagement and service learning opportunities. Former students return to volunteer at these events. These former students are attending green high schools and in some cases pursuing green careers.

Our school family's commitment, the leadership of our administration and support of our Green Partners helps Air Base K-8 Center to think green, do green and be green with the goal of sustainability for all.

Air Base K-8 Center

**School Contact Information:**

**Principal:** Mr. Raul Calzadilla, Jr.

(305) 258-3676

rcalzadilla@dadeschools.net

12829 S. W. 272 Street, Homestead, Florida 33032

**Facebook page:** N/A

**Lead Applicant:** Hannah Purcell

(305)258-3676

[hpurcell@dadeschools.net](mailto:hpurcell@dadeschools.net)

**Website:** [www.airbaseK8center](http://www.airbaseK8center)

**District:** Miami-Dade or Dade

**School Type:**

Public/Suburban

**Level:** K-8

**Does your school serve 40 percent or more students from disadvantaged households?** Yes

**Attendance Rate:** 98.06%

**Total Enrolled:** 1,059

**Percent of students receiving Free or Reduced Price Lunch:** 59.6%

**List your school's participation in a local, state or national school programs or others which asks you to benchmark progress in some fashion, such as EPA ENERGY STAR Portfolio Manager, Eco-Schools, USDA Fuel for Schools, USDOE Wind for Schools, Project Learning Tree, etc.**

**Program(s) and Level(s) achieved:**

1. Florida Green School Network: Winner, Florida Green School, FY 15-16
2. Miami-Dade County's Dream in Green's Green Schools Challenge, WE-LAB, Green City Challenge Programs: numerous and various awards earned meeting criteria for monthly green challenges focused on energy efficiency, water conservation, reducing waste/recycling, alternative transportation, green building, green careers, Eco-Summit. In addition to monthly challenge awards, also Finalist, Top 10, High Scoring, Honorable Mention, etc.
3. Fairchild Challenge: numerous and varied awards earned including 1<sup>st</sup> and 2<sup>nd</sup> Overall, Environmental Advocacy, Garden/Habitat Restoration

**List your staff or student body awards for facilities, health or environment.**

**Award(s) and year(s)**

**National:** Green Education Foundation's Spotlight School/Green in Action Award, 2011

Green Education Foundation's Top 25 Green Initiatives Award, 2011

**National:** Published in environmental resource book, "Marketing the Green School: Form, Function and the Future"

**National** Healthy School Award, Silver Medal, 2015 and 2016

**National** Let's Move Active School, 2014 and 2015

Finalist, Lowe's Large Toolbox Grant, retrofit/green old school building

**State:** Winner, Florida Green School Network, FY 15-16

**District:** Dream in Green Awards-numerous, varied, FY15-16 to FY 10-11

Fairchild Challenge Awards -numerous, varied, FY 15-16 to FY 12-13

Brandsmart USA's Premio Verde Escolar Award, FY 13-14

Deering Estates Foundation's Educational Partner of the Year, FY 14-15

South Division of Elementary Schools, Kid Fit Challenge, 2015

**Staff/Student Awards:**

**International:** Staff being published in European textbook on sustainable professionals

**State:** Staff Presented, Learn Green National Conference

**State:** Staff, Students Presented, R.E.F. Expo/Education

**State:** Trailblazing Teacher Award

**State:** Green Classroom Professional Certificate, US Green Building Council

**District:** Staff, Spirit of Service Learning Award (2), Winner/K-12, FY15-16 and

Finalist FY14-15, (Miami-Dade Teacher of Year Coalition and Returned Peace Corp Volunteers of So. Florida)

**District:** Staff, District Representative at National Green Schools Network Conference

**District: Staff, Students,** United Nations World Climate Project/White House Initiative: 1 of 7 schools chosen from district

**District:** Staff: Dream In Green's Innovation in Education (2) and Curriculum Integration (2)

**Pilot School for District:** Cool Roofs Pilot, Carton Recycling, Compostable Plate

**Piloted Programs:** Green Education Fair, Nurturing Environmental Stewards for Today and Tomorrow (NESTT), Recycling (5 of 7) Programs, Organic Gardening, Native Garden Certifications, (5) Pine Rockland Land Acquisition for school/community

### **Pillar I: Reduced Environmental Impact and Costs**

***Can your school demonstrate a reduction in greenhouse gas emissions? Yes***

Percentage reduction: 45.45%

**Over:** 10/2013 – 10/2016

**Initial GHG emissions rate (MT eCO<sub>2</sub>/person):**

10/2013: 308 KW = 0.239 tons of GHG by 720 persons = .00033 tons GHG/person

**Final GHG emissions rate (MT eCO<sub>2</sub>/person):**

10/2016: 280 KW = 0.217 tons of GHG by 1,195 persons = .00018 tons GHG/person

**Offsets:**

**Reduction in KW and GHG compared to number of people from 2013 to 2016:**

a).

- 10/2013: 308 Kw = 0.239 tons of GHG by 720 persons = .00033 tons GHG/person
- 10/2014: 272 Kw = 0.211 tons of GHG by 829 persons = .00025 tons GHG/person
- 10/2015: 280 kw = 0.217 tons of GHG by 1,140 persons = .00019 tons GHG/person
- 10/2016: 280 kw = 0.217 tons of GHG by 1,195 persons = .00018 tons GHG/person

b)

- 2013 to 2014 saved .00008 tons GHG/person
- 2014 to 2015 saved .00006 GHG/person
- 2015 to 2016 saved .00001 GHG/person
- 2013 to 2016 total saved .00015 GHG/person

### ***How did you calculate the reduction?***

1). We attribute the reduction in Greenhouse Gas (GHG) emission to our continued, comprehensive energy-saving initiatives. Our school's Mission Statement includes the infusion of environmental education throughout our PK-8<sup>th</sup> curriculum. This also involves school-wide, daily energy saving habits promoted via our Green Ranger Program, Green Kick-Off Assemblies, Green Pledge, Dream In Green's Green School Challenge, Fairchild Challenge, Green Education Fair, environmental curriculum/activities.

2). Background of Energy Saving Initiatives: In 2010 a major energy saving initiative was completed with support obtained from our district maintenance department and initiated by our Green Team (student) Club. Our school was built before air conditioning, therefore the jalousie windows are on one wall, and four large, unscreened air vents on the opposite wall for circulation in classrooms. Each louvered vent is 22" x 24", a total of 80 in many different classrooms which could not be closed adequately, facilitating

poor air conditioning, high humidity, a lot of dirt, outside/hallway noise and animals in/out of rooms. These vents were sealed with eco-friendly sealant, formaldehyde-free insulation, then a metal plate. When the district painting department was told about our initiative she also volunteered her expertise and painted the vents on the inside of the rooms. As a result of these vents being sealed, teachers used the air conditioners less, the a/c units became more efficient, rooms were cleaner due to less dirt/pollen particulates and quieter/less noise pollution in addition to less animals (lizards, scorpions, snakes, roaches, ants). This was a significant energy saving project, although we currently have no data to support it.

3). An example of our ongoing efforts to improve our energy efficiency is through our Green Ranger Program, which promotes daily green behaviors/habits. We were advised by Health/Safety Inspectors that we had to keep the jalousie window open in classroom bathrooms. This meant that the room's a/c unit would not be able to work efficiently with the window open all day. Through the Green Ranger Program, we teach the importance of including the green habit of keeping the bathroom door closed, improving energy efficiency.

***Has your school reduced its total non-transportation energy use from an initial baseline? Yes***

***Current energy usage (kBTU/student/month):***

**1 KW = 3412.142 BTU/hr.**

October 2016: 280 KW x 3412.142 BTU/hr. = 955.4 kBTU

October 2016: 955.4 kBTU with 1,195 students = .7995 kBTU/student/month

***Current energy usage (kBTU/sq. ft./month):***

955.4 kBTU/55,882 Sq. ft. =.017 kBTU/sq. ft./month

***Percentage reduction:***

9.09%

***Over (10/2013 – 10/2016):***

10/13: 308 kw

10/14: 272 kw, increase of sq. ft. (added 6 portable classrooms)

10/15: 280 kw

10/16: 280 kw

***How did you document this reduction?***

At the beginning of every school year, for several years now, we have Green Kick-Off Assemblies for primary (PK-2<sup>nd</sup>), intermediate (3<sup>rd</sup>-5<sup>th</sup>) and Upper Academy (6<sup>th</sup>-8<sup>th</sup>). Students and teachers perform kits, songs, narrate a PowerPoint of our school-wide environmental initiatives, current issues, etc. all to educate, inspire and empower our students and teachers. Back in the classrooms, everyone chooses an initiative (i.e.: I pledge to save energy/save water by...) and makes a green pledge or promise. These are all on display all year to remind, inspire and educate our many visitors.

Every year our school also participates in environmental programs such as Dream In Green's Green School Challenge, WE/LAB and Green City Challenge wherein monthly challenges address energy efficiency, water conservation, reduce waste/recycling, alternative transportation, green building, green careers, Eco-Summit. The focus is environmental advocacy, greening daily habits, reaching beyond the school to include the community. For over seven years we have won multiple awards every year.

Fairchild Challenge is another program where we have excelled. Our energy saving habits have become daily habits.

Other examples of energy saving efforts include Air Vent Sealing Project in 2010, Cool Roofs Pilot in 2012. Plus, we have ongoing jalousie window sealing projects such as using plastic wrap, braiding it, put into gap then taped over. We have also used cord and Styrofoam (pool noodle) cut into strips. Missing/broken windows are temporarily sealed using recycled cardboard and plastics. Other efforts to

green our old school building include applying twice for a large grant to retrofit and green several rooms/wing. The second time we were a finalist.

We are expanding to a K-8, with additional energy, water and waste demands. We have added more students, staff and several additional classrooms, along with new construction and more students/staff next year. Our energy efficiency efforts continue to educate and empower everyone.

***What year was your school constructed?*** 1958

***Please provide the following information for new construction (past 10 years):***

As part of our K-8 expansion from an elementary school, temporary portables were added to accommodate our incoming 6<sup>th</sup>-8<sup>th</sup> graders. Plans are underway for the permanent building. Our district is a leader in sustainability initiatives, and as such, some green building elements are a district standard. In addition, we have been assured by the District Office of Sustainability that additional green building elements will be included due to our school’s consistent leadership in environmental advocacy and implementation of environmental initiatives.

***Has your school developed a program or made progress toward reducing the heat island effect with cool roofs, reduced pavements, or reflective coatings on pavement?***

Air Base K-8 Center is a Cool Roof Pilot School. Our district, Florida International University (FIU), Florida, Power & Light, and Ernst & Young’s Environmental Sustainability Office collaborated on this project with us. Reduction in room and roof temperature data was gathered via installed sensors, computers maintained by district and FIU. Our fifth grade Science students also took readings using sensors to accumulate data which they used for projects/reports on energy saving initiatives/programs. This data was also provided to our Green Team who shared with staff (during meetings, etc.).

Comparisons were made between uncoated/coated rooms. The district Senior Project Manager (LEED® AP BD+C), MDCPS, Division of Roofing provided a statement dated 3/9/2012 documenting the reduction in temperature due to Cool Roofs. “Today I was at the site and borrowed an infrared temperature gauge from the 5th graders. They have been taking readings from the ground. I wanted to see what was happening on the roof surface. Needless to say, I was shocked by the following result.”

Time	Bare Concrete Deck	Uncoated Black Roof (Modified) (Center Rm 2)	Coated Roof (Modified) (Center Rm 7)
9:00 AM	95 Degrees	111.2 Degrees	90.5 Degrees
10:00 AM	100.5 Degrees	130.5 Degrees	97.9 Degrees
11:00AM	110.5 Degrees	143.8 Degrees	104.7 Degrees
12:00 PM	119.7 Degrees	159.8 Degrees	103.2 Degrees
1:00 PM	126.8 Degrees	159.4 Degrees	108.3 Degrees

***Inside data at the apex of the roof:***

Time	Uncoated Black Roof (Modified) (Center Rm 2)	Coated Roof (Modified) (Center Room 7)
9:00 AM	78.3 Degrees	77.0 Degrees
10:00 AM	77.0 Degrees	75.7 Degrees
11:00 AM	76.6 Degrees	75.2 Degrees
12:00 PM	77.0 Degrees	77.2 Degrees
1:00 PM	77.2 Degrees	76.8 Degrees



***What is your school's drinking water source?***

Public water and sewer company, South Dade Water and Sewer Management District

***Please provide the following information about your school's total water consumption:***

***What is the average baseline water use (gallons per occupant):***

2014, Jan. – Oct., 10 months: 1,321,808 gallons/829 occupants = 1,594.46 gal./occupant

***Current water use (gallons per occupant):***

2016, Jan. – Oct., 10 months: 86,007.8 gallons/1,195 occupants = 720.50 gal./occupant

***Percentage reduction in domestic water use:***

54.81%

***Time period measured:***

2014 - 2016

***How did you document this reduction?***

In the spring of 2014 water aerators for classroom faucets and cafeteria/kitchen faucets received for free through our participation in the Dream In Green's Water + Energy/Learning + Behaviors (WE/LAB) Program. The water aerators were installed by Green Team Club students/teacher and then district/school staff when installation required additional tools, etc.

For many years, one of our school-wide environmental initiatives is water conservation. This begins with our annual Green Kick-Off Assemblies (primary - PK-2<sup>nd</sup>, intermediate -3<sup>rd</sup>-5<sup>th</sup>, upper academy -6<sup>th</sup>-8<sup>th</sup>) where students and teachers use skits, songs, PowerPoint presentations to feature this (and other) initiatives. Both local and global problems/solutions as well as everyday water saving habits are explored during the assemblies. This is followed up in the classrooms and then our school family (students, teachers and staff) made their Green Pledge or Promise, where they are all put on display. Throughout the year, various and numerous curriculum/lessons, field trips, presentations, green programs and special activities feature water conservation issues further reinforcing this initiative and providing many opportunities that empower everyone to save water at school, home and in the workplace. Other water conservation practices we use include rain barrels, native plants/trees, mulching. In the beginning of each year students and teachers also conduct a school-wide walkthrough and e-mail survey (of energy and water needs) to determine water leaks – faucets/plumbing in classrooms, bathrooms, cafeteria, etc. This information is compiled and used to generate maintenance work orders. District report of electricity and water usage were used for required data.

***Please describe if your school's landscaping is considered water - efficient and/or regionally appropriate.***

Our school grounds are extensive, with about 98% native plants and trees – all Florida-friendly. The grounds have been certified by five organizations: National Wildlife Federation, Univ. of FL/IFAS Florida Friendly Landscape (Gold Award), North American Butterfly Association, Monarch Way Station and Fairchild Tropical Gardens. Other forms of water efficient landscaping methods include drip irrigation and rain barrels. Further, native and eco-friendly mulch is used to further conserve water. These methods are used 100% throughout our school. There is no additional irrigation used, only occasional watering as needed during the dry season. Three Green Kick-Off Assemblies for teachers and students in primary, intermediate and middle school include environmental initiatives such as water conservation and native ecosystems, then school-wide green pledges are made and displayed. Additional focus is placed on water conservation via our annual Green Education Fair, showerhead exchange program by Univ. of FL/IFAS, DROP mascot, etc. Other environmental professionals share their expertise about native plants and ecosystems.

***Describe how the school grounds are devoted to ecologically beneficial uses?***

We have an “open school” with extensive school grounds. Native plants and trees have been purchased and donated recreating Florida’s native ecosystems. Our native wildlife gardens have been certified by five organizations: National Wildlife Federation, Univ. of FL/Florida Friendly Landscape, North American Butterfly Association, Monarch Way Station, Fairchild Tropical Gardens.

***Describe any efforts used to reduce storm water runoff and/or reduce impermeable surfaces.***

Reduction of impermeable surfaces will be achieved through green alternatives such as native plantings and gardens instead of concrete. This is part of the new green building for our K-8 expansion.

Storm water run-off from the roof was addressed by creating planter boxes in six different areas. Further, rain barrels are also utilized. Our school spearheaded efforts to get a natural area protected and designated as a Pine Rockland. This site will be utilized by our school as an extension of our Learning Gardens/ Outdoor Classroom.

***Describe how the water source is protected from potential contaminants (e.g. programs you have in place to control chemical contamination, lead or heavy metals in drinking water, etc.).***

Our State, District and school standards and policies ensure no chemical contamination of water. School environmental initiatives featured at annual, school wide Green Kick-Off Assemblies educate school staff and students about this growing global issue.

***Describe how solid waste is diverted from land filling or incinerating due to reduction, recycling and/or composting.***

Over several years we have expanded our recycling initiative to include various types of objects from different recycling companies which has greatly reduced the amount of solid waste we generate. They include recycling of: plastic bottles and aluminum cans which are recycled and benefit veterans. The collection efforts also include: electronic equipment (computers, printers, etc.), small electronics (cell phones, cameras, etc.), printer ink, cardboard/paper, juice pouches, cartons. Solid waste has also been reduced through two campaigns: Our No Plastic is Fantastic Campaign stopped the purchase of plastic bags for milk and juice for meals in the cafeteria. These plastic bags were not being recycled. We now purchase cartons, which are recycled. As a result of this initiative, we are a Carton Recycling Pilot School for the district. The second campaign involved no longer purchasing Styrofoam food trays. They trays could not be recycled and were replaced with a compostable plate used for meals in the cafeteria, which breaks down into eco-friendly biodegradable elements. As a result of this initiative, we are a Compostable Plate Pilot School for the district. In 2014, additional solid waste reduction efforts included purchasing two water bottle filling stations reducing plastic water bottle waste and two green hand dryers, reducing paper towel waste.

***Describe the strategies your school uses to increase the volume of compostable materials.***

The volume of compostable material has greatly increased, reducing our garbage/trash. This has been accomplished by choosing to purchase and use compostable plates for breakfast, lunches in our school cafeteria instead of the typical Styrofoam/polystyrene lunch trays.

***What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free?***

Bathroom Tissue: Sustainable/certified forests: 100%

Paper: Recycled content used: 5%

***What cleaning products used at your school are green certified?***

Green Floor Stripper

***Our school has implemented the following alternative transportation practices:***

- ✓ Vehicle loading/unloading areas that are at least 25 feet from buildings, air intakes, doors and windows.
- ✓ Safe pedestrian routes to school and safe routes to school.

***Additional information for above-referenced items.***

Designated crosswalks and Crossing Guards ensure safety of pedestrians crossing streets, walking on sidewalks. Speed limit signs, flashing lights further ensure compliance and safe pedestrian routes. Specific vehicle (bus, car pick-up/drop-off, parking lots) loading/unloading areas are well-publicized. District standards and School Safety Committee monitor, resolve any issues/concerns as needed.

As a magnet school, most of our students do not live near the school. Our school family is close-knit. Due to our extensive activities and special events we have a high number of parent volunteers. As such, our parents, our families, our students become friends. Approximately 76% of our parents take turns carpooling their children. Others are picked up by different private buses the parents contract with or the students ride the district school buses.

Parking is a challenge for a few reasons. As a magnet, students do not live within walking distance. Our school is expanding to a K-8, plus we have a lot of school-wide activities during the school day, evenings, etc. Often cars have to park 1-2 blocks past the school in different directions. Designated crosswalks and Crossing Guards ensure safety of pedestrians crossing streets, walking on open lots and side-walks. Speed limit signs, flashing lights further ensure compliance and safe pedestrian routes. Specific vehicle (bus, car pick-up/drop-off, parking lots) loading/unloading areas are well-publicized.

District standards and School Safety Committee monitor, resolve any issues/concerns as needed.

**Pillar II: Improve the Health and Wellness of Students and Staff**

***Our school employs the following practices to minimize exposure to hazardous contaminants.***

- ✓ Our school enforces a policy that prohibits all tobacco use by students, staff and visitors on all school-owned property and at school-sponsored events.
- ✓ Our school enforces a policy that prohibits smoking by students, staff and visitors on all school-owned property and at school-sponsored events.
- ✓ Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school.
- ✓ Our school has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.
- ✓ Our school adheres to the Asbestos Act and has an asbestos management plan in place.
- ✓ Our school has a chemical management program that includes: chemical purchasing policy (low- or no-volatile organic compounds (VOC) products), storage and labeling, training and handling, chemical inventory, hazard communication (clean-up and disposal), purchasing policy for less toxic products including less toxic art supplies, and selecting third-party-certified green cleaning products.
- ✓ Our school has a healthier or green cleaning custodial program.

***Specific examples of actions taken for regarding minimizing exposure to hazardous contaminants:***

- ✓ District standards prohibit smoking/tobacco use on school grounds, during school-sponsored events, etc. District sets boundary limits of smoking around/near school grounds during and after school.

- ✓ Strict environmental standards by state and district do not allow toxic chemicals, including mercury.
- ✓ Radon gas monitored/tested; one room is monitored via equipment installed by District team.
- ✓ Strict district standards are complied with regarding chemicals in wood (playground) and asbestos.
- ✓ Strict state and district requirements/standards/inspections are adhered to with regards to any/all chemicals on school property.
- ✓ Green Cleaning Custodial: Green Floor Stripper and Bathroom Tissue (sustainable forests/recycled paper) used throughout K-8 school.

***Describe actions your school takes to prevent exposure to asthma triggers in and around the school.***

Asthma triggers such as dirt/soil particulates, pollen, mold/mildew, etc. are an issue with an old school building and an “open school/finger building” model. This is further complicated by the walls of jalousie windows, huge air vents, water faucets/sinks and bathrooms in most of our classrooms. I have taught in three different schools, each the same building model. Leaky or broken windows, running water, leaky faucets and toilets are reported and repaired. Through our ongoing participation in the Dream In Green’s Programs (Green School Challenge, WE-LAB, Green City Challenge), one of the first monthly challenges at the beginning of every year includes greening the school building by surveying for any/all energy and water related issues. Students and teachers survey the school by doing a walk-through and an e-mail survey is also sent out to all staff. The results are compiled and submitted to administration who then generates work orders to repair/address the problem. Additionally, any of these issues are also reported/repared as identified by anyone during the year as well. A/C filters and equipment checked, repaired or replaced regularly. District Zone Mechanics are tasked with maintaining the air conditioning units by monitoring/replacing a/c filters. They come to the school on a weekly basis. Issues with a/c equipment identified by staff (custodians, teachers) are reported to administration and Zone Mechanics, generating a work order for repair. Further, approximately every year the district a/c maintenance department cleans all the a/c window units by removing them as needed. Our Green Team (staff) has had discussions with faculty regarding the use of air fresheners in classrooms.

***Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly.***

At Air Base K-8 Center, air conditioner units are inspected onsite on a weekly basis by Zone Mechanics. The air conditioners are cleaned by the maintenance department and custodial staff annually or more often if needed.

***The following indoor environmental standards are employed at our school.***

- ✓ The classrooms in our school have good day lighting and high quality electrical light when needed
- ✓ The classrooms in our school have views of trees and nature.
- ✓ Other: Reduction of toxic chemicals found in plastic encouraged

***Specific examples of actions taken for above-referenced practices above.***

1. Lighting conversion completed once electrical updates made to old school building.
2. Majority of classrooms and office space have ample day-lighting and outdoor views of school wide gardens and green spaces with trees.
3. Reducing/eliminating toxic plastics is achieved via PowerPoints, skits, narrated presentations at our school wide, annual green assemblies. Additional activities encourage via our green/environmental clubs and lessons in the classrooms. At special events, sponsored by our P.T.A. and volunteers, efforts are made to purchase/use green or eco-friendly supplies, utensils, etc. Further, our parents, staff and students have access to our school webpage educating everyone about the toxic versus environmental friendly options.

***Describe other steps your school takes to protect outdoor environmental quality.***

Approximately 25% of our school grounds have been transformed, protecting outdoor environmental quality through the restoration of the native ecosystems by planting thousands of native plants and trees. These were obtained via grants, donations and partnerships with local community businesses and environmental organizations. Our Beautification Days, held 2-3 times a year include parents, staff, students and community volunteers working together to beautify and protect our school's outdoor environmental quality. The variety of native Florida flora and fauna and the rainbow of colors are highlighted by the native birds, butterflies and other wildlife that have made our school their home.

***If your school implements the coordinated school health (CSH) model, describe highlights in each of the component areas: Health Education; Physical Education; Health Services; Nutrition Services; Counseling, Psychological and Social Services; Healthy School Environment (physical building and social/emotional); Health Promotion for Staff; Parent and Community Involvement Related to Wellness.***

Our school utilizes the School Health Index on an annual basis to measure/monitor our policies, practices and procedures in the areas of CSH and to determine success. All areas: School Health Policies/Environment, Health Education, Physical Education/Other Physical Activity, Nutrition Services, School Health Services, School Counseling, Psychological and Social Services, Health Promotion for Staff, and Family/Community Involvement were assessed. Air Base action plan includes activities to improve include healthy snacks instead of colas, high sugar/fat foods in vending machines, as fundraisers and at meetings.

***If your school has a healthy school team, describe the team membership (e.g. administrator, parent, teacher, student, food service professional, school nurse, counselor), meeting frequency, goals and successes.***

Administration, teachers, nurse and counselor meet approximately three times a year and as needed. Conducting the School Health Index, safety/health issues, and concerns raised such as the plastic bags for milk and juice are examples of goals accomplished and successful implementation of healthier programs for staff and students.

***Our school employs the following practices to promote nutrition, physical activity, and overall school health:***

- ✓ Our school participates in the USDA's Healthier US School Challenge.
- ✓ Our school participates in the Alliance for a Healthier Generation's Healthy School Program.
- ✓ Our school participates in a Farm-to-School program to use local, fresh food.
- ✓ Our school has an on-site food garden.
- ✓ Our school garden supplies food for our students in the cafeteria, a cooking or garden class, or to the community.
- ✓ Our school promotes physical activity opportunities above and beyond physical education (e.g. running clubs, archery, golfing)
- ✓ At least 50 percent of our students' annual physical education takes place outdoors.
- ✓ Health measures are integrated into assessments.
- ✓ Our school provides staff, students, and families information on nutrition education and/or programs.
- ✓ Our school provides all students with opportunities to receive instructional time in a school garden.

***Specific examples of actions taken for each above-referenced practices including innovative or unique practices and partnerships.***

1. National Healthy School Award, Silver Medal, 2015 and 2016

2. National Let's Move Active School, 2014 and 2015
3. South Division of Elementary Schools, Kid Fit Challenge, 8 medals, 2015
4. State Fitness Grams, annually
5. We have several organic food gardens; some for individual classes, grade levels and our cafeteria. Some created by reaching out to local green organizations/businesses who have taught a variety of gardening lessons to our participating teachers, students and parents.
6. Harvested foods prepared by our cafeteria, volunteering parents and teachers for classes, clubs and staff to enjoy. Native American Beautyberry berries were harvested, made into jelly-all agree best jelly ever. Everyone enjoyed the harvested free herbs. Parents/teachers shared recipes while picking vegetables, herbs.
7. Athletic team sports for boys and girls (soccer, basketball, football) added as school expands to include 6<sup>th</sup>-8<sup>th</sup> graders. Special efforts/accommodations made to include these sports.
8. Clubs featuring sports, dance and music are also options made available for our elementary to middle school students.
9. Physical activity, stress-relief, brain breaks are also provided for all students via outdoor games, free-play/recess, plus indoor dance/music movement programs, i.e. Go Noodle.
10. Physical Education classes are held outdoors with exception of rainy days. P.E. is also included in the Master Schedule for our Kindergarten students, not a typical practice for our school district.
11. Health measures include screening, monitoring, and/or treatment of: body/mass measurements, diabetes, allergies, vision screening, head lice, etc. Additionally, weight and height measurements are taken and documented annually.
12. Health agencies provide nursing staff trained to meet health and medical needs of students and staff. Additional health support services such as dental checkups/treatment, flu shots are provided through contracted health agencies.
13. Nutrition education is provided through our district's Food and Nutrition Program. This is accomplished mainly through the healthy, nutritious breakfast, lunches and snacks prepared by our cafeteria staff and served daily to students and staff. The importance of nutrition is also featured on posters displayed in the cafeteria and seen by parents, students, staff and our many community visitors.
14. Our Learning Gardens include the numerous organic food gardens, Outdoor Classroom, wildflower meadow, class gardens and native plants and trees throughout our open school grounds. These gardens are a Living Laboratory facilitating interdisciplinary lessons and subject-specific lessons for PK-8<sup>th</sup> grade, taught by our teachers, expert gardeners, native plant/ecosystem professionals as well as university/college professors and students.
15. Examples include: Gardens used by Art classes; French and Spanish classes use to teach foreign languages; Math classes apply measurement skills; Science/Biology classes use observation skills, C-E-R, experiments, environmental education, citizenship science; Reading/Language Arts/English Language Arts classes develop reading and writing skills; Social Studies classes learn history, citizenship, service learning.
16. Additional outdoor learning experiences are available due to our developed partnerships with many environmental agencies. Outdoor place-based learning is provided to all grade levels via place-based field trips to Everglades National Park, Deering Estate's Nurturing Environmental Stewards of Today and Tomorrow (NESTT) Program, Zoo Miami, etc.

***If the food purchased by your school is certified as "environmentally preferable", please indicate the percentage and type. Percentage: 90%***

Our cafeteria adds more fresh vegetables and fruits to the school menus than what is provided by district. Fresh foods, i.e. salads – chef and side – also offered daily. Healthier alternatives such as sweet potato fries, veggie burgers, fruit/yogurt shakes, 100% juices, water are also available. No sweets, colas in vending machines nor sold during school day. Healthy snacks instead are purchased and provided during meetings, in vending machines, as fundraisers.

Plastic bags of juice and milk are no longer purchased. Instead, milk and juice in healthier and recyclable cartons are provided.

***Describe the type of outdoor education, exercise and recreation available.***

1. Two playgrounds for primary/elementary. Grant, donations provided funding for large, covered playground providing shelter from Florida sun/heat.
2. Exercise/recreation built into class schedules, provided via recess, etc.
3. Sports clubs and athletic team sports above what district and state offers
4. Additional outdoor education, exercise and recreation is offered via regular activities/special events for students, staff and families, all held during school day, weekends and evenings. For example, PK-8<sup>th</sup> get a Field Day full of outdoor exercise/recreation. Parents, teachers organize various team/individual activities, ensure healthy food, water are available and help with awards.

**Pillar III: Effective Environmental and Sustainability Education**

School or District Policies - Our school or district has:

- ✓ A written definition of environmental literacy and/or a definition of environmental learning outcomes including knowledge, skills, positive attitudes, and civic responsibility
- ✓ A Partnership Agreement with a non-formal education provider in the community that supports environmental sustainability literacy.
- ✓ An environmental or sustainability literacy requirement
- ✓ A set of policies to promote environmental education and sustainability
- ✓ A policy that is consistent with relevant elements of the Florida Environmental Literacy Plan

**Provide specific examples of actions taken for each checked practice above.**

1. Environmental literacy is included in our School Improvement Plan (SIP), school Mission Statement and Green Team's Mission statement. Additionally, school-wide involvement in a variety of environmental programs provide a more comprehensive definition and involvement.
2. Our environmental sustainability literacy is supported by our Green Partners. They educate at our annual Green Education Fair, provide curriculum, field trips, presentations, etc. Examples: Everglades National Park, Florida International University, Deering Estates, Biscayne National Park, Homestead Air Reserve Base, Zoo Miami, Miami-Dade Waste Management, F. P. & L., City of Homestead, Univ. of Florida/Miami-Dade Co. TERRA and Bio-TECH (environmental high schools), Slow Food Miami, Encounters In Excellence, Florida Native Plant Society, Coral Reef Restoration Foundation, US Coast Guard, and others.
3. Environmental/sustainability literacy is also infused by our district school curriculum into all subjects. Additional creative efforts by our teachers and participation in extra environmental education programs extend our school's environmental education and sustainability even further.
4. Additional policies include the monthly challenge requirements/benchmarks which focus on various environmental initiatives in Dream in Green's Green Schools Challenge/WE-LAB, Green City Challenge Programs and Fairchild Challenge. These are very comprehensive school-wide programs implemented all year, every year.
5. Environmental monthly challenges include lessons/activities focused on energy efficiency, water conservation, waste reduction/recycling, alternative transportation, green building, green careers, etc.
6. Examples of policies include our collaboration and involvement with Florida Green Schools Network, U.S. Green Building Council, Green Education Foundation, Dream In Green Academy, Fairchild Tropical Gardens. Further, environmental professional development/workshops taken by staff and taught by staff, STEM lessons, community/civic involvement by staff and students, etc. Our school is consistently improving and expanding our environmental/sustainability education to include our families, their workplaces, etc. Environmental advocacy plays a large role in our efforts to educate the future environmental stewards of our Earth.

***School or District Academic Programs - Our school or district has:***

- ✓ An academic program that integrates environmental and sustainability concepts across the curriculum in a single subject.
- ✓ An academic program that integrates environmental and sustainability concepts across the curriculum in multiple disciplines.
- ✓ A school or district managed site or facility specifically for field-based environmental studies.
- ✓ A green schoolyard program (e.g., Florida Friendly Landscaping; Gardening, Schoolyard restoration program) that is integrated in the curriculum.
- ✓ A way to assess student environmental and sustainability learning and achievement.
- ✓ Professional development in environmental and sustainability education for all teachers and staff.
- ✓ Field trips for students to study environmental education at outdoor programs, science museums, zoos, aquariums, parks, etc.
- ✓ A school program that includes service learning projects that incorporate environmental topics.
- ✓ A way to use the buildings, grounds, and neighborhood to teach place-based environmental education and foster local ecological literacy in a hands-on manner.

***Specific examples of actions taken for the above-referenced practices.***

1. Environmental/sustainability education is infused into our district PK-8 curriculum via interdisciplinary and subject specific classes. Our ongoing school-wide involvement in environmental programs further integrates the concepts.
2. New middle school, still expanding to full K-8<sup>th</sup> (middle school) from K-5<sup>th</sup> (elementary), hoping to include Environmental Science class in future.
3. Environmental learning and achievement is measured via the provided district curriculum, teacher-created assessments, benchmarks provided by involvement in environmental curriculum and programs, participation in various environmental programs.
4. Professional development taken by staff and provided by staff is ongoing via district, environmental programs, community involvement, etc.
5. Field trips to national parks (Everglades and Biscayne), museum, green LEED buildings, university/college environmental centers, historic/unique native biomes, zoos, community gardens, etc. occur throughout the year by all grade levels.
6. Service learning opportunities equal environmental advocacy and are provided via Green Education Fair/SMACK Night, Baynanza (Bay clean-up), special community and school events, Eco-Fair, Beautification Days, recycling programs, school-wide green assemblies, teaching other classes about a variety of environmental topics, gardening, etc. Staff earned Spirit of Service Learning Award for two years in environmental education.
7. Place-based learning at school and offsite are provided often for all grade levels every year. This is accomplished via grants, donations, involvement in various environmental programs and through collaborations created for the sole purpose of teaching sustainability not just at school but for life-long learning.

***How does your school use sustainability and the environment as a context for learning science, technology, engineering and mathematical (STEM) thinking skills and content knowledge?***

Sustainability and the environment are a common thread tying together science, technology, engineering, and mathematical (STEM) skills. In science, major concepts are taught through the lens of sustaining Earth's resources and the impacts of our actions in the environment. For example, teaching Florida's landforms opens up a discussion about the Everglades and the importance of conserving water, saving ecosystems. Technology and engineering go hand-in-hand where students can create their own systems that may solve environmental concerns (e.g. creating water filtration devices from everyday objects). Mathematics is infused within all lessons as students must measure, calculate, and transform data in order to synthesize logical conclusions. Students are doing this by growing edible plants in conditions similar to NASA's International Space Station evaluating if the plant is a viable candidate to grow in outer



space. STEM is used as solar and wind energy are explored through Critical Thinking class as they create, race their own solar/wind powered cars and primary students create/use their solar ovens. Further application of STEM skills includes determining how much water and energy is used, how much it takes to make various objects. Our Science and Math for Creative Kids (SMACK) Night, field trips also include STEM lessons.

***How does your school use sustainability and the environment as a context for learning green technologies and career pathways?***

1. Many experts representing variety of green careers share environmental expertise at our annual, Green Education Fair and SMACK Night: Physics professor, utility (energy and water) company, waste management/recycling, water reclamation, LEED building, organic gardening, coral reef restoration, native and marine ecosystems, national parks, zoo, military base, nature documentaries, solar, natural gas, biology field station, university research, environmental ed. curriculum programs, etc.
2. University staff, grad students, high school staff/students teach lessons using a variety of resources both onsite and offsite/field trips i.e. FIU's Aquarius & SEAS; BioTECH, TERRA
3. Presentations at school, i.e. Water Ventures Mobile Lab, Dream in Green's Green City Challenge, Biology, NASA, Organic Gardening, narrated nature documentary,
4. Students/staff aided a university and science agency research an endangered bat by setting up, learning about and using equipment/technology. 6 types identified, including the endangered Florida Bonneted Bat.
5. Resources: Webinar: first female scientists – Our Oceans in Your Hands, Sustainable Farming, etc.; Curriculum: Coral Reef Conservation Trunk, Discovery Ed., National Geo. TFK, Scholastic, etc.
6. Technologies used daily: Green hand dryers (2), water bottle refill stations (2)
7. Career Day: Presentations of green careers, biofuel & electronic vehicles; fundraiser - students dress up in their green career

***Describe students' civic/community engagement projects integrating environment and sustainability topics.***

Our students and staff have been invited by the community and educational institutions to present and participate in environmental projects. Example: White House Initiative/World Climate Project sponsored by Frost Museum of Science, Dream In Green, University of Miami and others. We were one of seven out of entire district invited. This was a once-in-a-lifetime experience requiring workshops, role-playing. We mentored high school students representing various countries and negotiated compromises to address real-world environmental problem of climate change by reducing CO<sub>2</sub> levels. Scientists input the data into the computer simulation program to show climate change initiatives being negotiated which mirrored the COP21 Climate Change Talks in Paris, France. Example: R.E.F. Expo/Education – only school in district invited to environmental expo. Students, teacher presented environmental initiatives including energy, water, waste, climate change, etc. to university professors and students, green professionals, students, etc. Interactive Earth focused on environmental initiatives was also created. Example: Eco-Fair students/staff share/present our environmental programs, initiatives with community. Example: our students transfer to environmental high schools, are chosen to participate in green research, have chosen leadership roles in the community while continuing to teach others. Example: Students are interacting with students in other schools and countries about environmental topics, about what they were inspired and empowered to do about their world, their environment.

***Describe students' meaningful outdoor learning experiences at every grade level.***

(FT=Field Trip)

*PK-8<sup>th</sup>*: Variety of lessons, activities with environmental focus and infused green learning experiences utilizing: Learning Gardens-Outdoor Classroom, Butterfly/Native Gardens, Wildflower Meadow, Class/Grade Level Organic Gardens, Recycle Relay Race, SMACK Night/Green Education Fair, Reading

Around the World, grade level cultural festivals, Career Day/Truck Day, Earth Hour, Culminating environmental events, Earth Day, Eco-Summit, Beautification Days (3)

1<sup>st</sup>-8<sup>th</sup>: Environmental Ambassadors/Green Team Clubs

2<sup>nd</sup>-8<sup>th</sup>: FT to LEED building as Green Team Award

K-2<sup>nd</sup>: FT Safari Edventure

2<sup>nd</sup>-3<sup>rd</sup>: FT Zoo

2<sup>nd</sup>-8<sup>th</sup>: FT to Homestead Air Reserve Base (recycling, solar, water reclamation, LEED building, native ecosystems, etc.)

2<sup>nd</sup>-8<sup>th</sup>: Baynanza, Eco-Fair

4<sup>th</sup>-8<sup>th</sup>: FT to Deering Estate's Nurturing Environmental Stewards of Today and Tomorrow (NESTT) Program

4<sup>th</sup>, 6<sup>th</sup>: FT to Everglades National Park

4<sup>th</sup>, 5<sup>th</sup>: FT to Fairchild Tropical Gardens, Water Ventures Mobile Lab (in/outdoors)

5<sup>th</sup>-8<sup>th</sup>: School grounds, active research

PK: FT to petting zoo/farm, Fairchild Tropical Gardens

K: FT to farm

1<sup>st</sup>: FT to Petting Farm

2<sup>nd</sup>: Dream in Green's Green City Challenge, LEED building

6<sup>th</sup>: FT to FIU-SEAS, Aquarius, marine ecosystems

8<sup>th</sup>: FT to Fairchild Tropical Gardens

***Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community and develop civic skills.***

We have made available many place-based outdoor learning opportunities both at school and in the community for all grade levels. Community has been invited to teach PK about pollinating bees, organic gardeners show staff and students how to plant and grow organic food, native plant experts teach work along with our parents, staff and students as they learn about the importance of native ecosystems; students and parents have taken home seeds and plants from our native and organic gardens now enjoying the wildlife and/or food; park rangers and biologists teach about natural resources and need to protect; environmental experts show and share expertise about solar, biofuels, natural gas, recycling, coral reef restoration, ecosystems, and more. Active research involving endangered bat, the almost extinct butterflies and host plant in our gardens; Baynanza (Bay cleanup), Eco-Fair, sustainable farming, mangrove cleanup, Beautification Days, lessons in our Learning Gardens are more examples of outdoor learning that is ongoing. Students learn that historically, their world has changed due to man's impact on the environment, they are shown the issues in other countries and learn it is the responsibility of us all to be environmental advocates.

***Describe your partnerships to help your school and other schools achieve in the three pillars. Include both the scope and impact of these partnerships.***

Reduced Environmental Impact and Costs:

- School wide environmental initiatives include ongoing energy efficiency, water conservation and reducing waste/recycling efforts
- Green Kick-Off assemblies to educate, green pledges made by staff/students
- Green Education Fair: green experts share expertise with families of students and staff
- Green programs, activities, field trips, resources are ongoing and ensure green habits in school, home, workplace
- Youth international environmental advocacy program through the Fairchild Challenge Program: Skype with other countries about environmental initiatives, problems/solutions and provided instructed for other district schools via interactive lessons on energy efficiency, water conservation, reducing waste/recycling, butterfly gardening, bee pollinators

- Recycling Energy Forum/Expo: Students/teachers presented PowerPoint, interactive activities for other elementary schools, college students and professors, green professionals
- World Climate Project: students and teacher presented/mentored high school students, worked with the University of Miami, Frost Museum of Science, StarBot Academy, Breakthrough Miami and Dream in Green.
- Community and family eco-events that foster volunteerism and civic/service learning

#### Improve the Health and Wellness of Students and Staff:

- School Health, Safety and Green Committees coordinate/implement programs and activities
- Environmental state/district standards ensure compliance, health/wellness of school
- Administrative leadership views school as home, a family; only the best for all

#### Effective Environmental and Sustainability Education:

- Green Partners comprised of community environmental organizations, colleges and other schools share expertise at Green Education Fair, green lessons/presentations, field trips, resources on/off site
- Outdoor, place-based, hands-on, interdisciplinary field experiences for PK-8<sup>th</sup> off/on-site
- Lessons by environmental professionals and F.I.U. professors/graduate students, involvement in active research
- STEM lessons
- Environmental experts invite students/staff to once-in-a-lifetime environmental initiatives in the community, i.e. White House Initiative/World Climate Change Project, R.E.F. Expo/Education, Eco-Fair teaching other students and community
- Leadership roles of students/staff as presenters on national, state, district, local level, other schools and peers also taught
- Civic engagement, service learning opportunities
- Greening old/new school building; district supporting efforts