Nature Know it Alls

Thirty Fourth and Fifth grade Students

Part B - Summary of 2014-2015 Green School Activities

IA. The use of our school butterfly garden as a learning environment is on-going learning facility integrated strategically into the school program 2014 -2015 School Year. Students have observed the life cycle of the Monarch and completed research on the migration of these creatures. An example of this is the monthly learning lessons where two grade levels are partnered to work on an environmental project. Additionally, students utilize the space for learning the gardening process. Each grade level has their own gardening box for maximizing learning about plant growth and healthy eating. Both during the school day and afterschool, students, teachers and parents utilize the space to support learning the process of gardening and the use of native plants to place in their gardens at home. This is a native plant garden fostering coontie palms to attract the Attala butterfly and milkweed to attract the monarch. Students of the school are actively involved in maintaining this garden by inspecting plants for harmful insects and calculating species of butterflies.

School Nature Trail – We are the only school in Martin County to have a tributary flowing from the intracoastal encompassing native plants growing throughout the area. Students take an active role maintaining this ecosystem. Our school grounds are quite different than other schools. The campus was designed to provide habitats for local birds with native Florida plants to reduce the use of excessive irrigation. Parent volunteers support the removal of exotic plants once a month through morning weed control.

Our school is an active member with Audubon of Martin County; with our diverse landscape birds frequent our grounds daily. Students partner with this organization for bird counts in the spring. During February teachers use backpacks that include journals, pencils and binoculars to document the bird species they see or hear on our school grounds including the nature trail. This information is sent to Martin County Audubon for their documentation on a national level. Each student in grades 3 -5 researched a Florida bird and created an essay to be read and celebrated with Audubon of Martin County. Winning entries were treated with a visit to Audubon of Martin County to celebrate the success of their essays and art projects.

- IB. Conservation projects for eastern campus at least once a month, students engage in habitat observations, plant identification and maintenance of the property along and surrounding the school nature trail. Our tributary is home to an abundant of species of trees which include the white, black and red mangrove trees. With permission we were able to collect the seedlings that had dropped into the water and replant the seeds to use on other parts of the tributary where there had been an encroachment of Brazilian pepper tree.
- II A. In October 2014 Florida Power and Light installed a solar powered pavilion to help power lighting in our covered play area. Students use this area to write, practice math problems, and read, making this an ideal outdoor learning environment. Through an online portal, school community members can track energy savings which are used to light our covered play area.
- II B. Our school fund raises with the sale of Bee Authentic Natural and organic products made in the USA. Families enjoy having these quality, healthy products.
- IIC. In early December 2014 our school hosted a Safe and Health Fair. Students attended on a Saturday and were encouraged to ride their bike or walk to the school. Healthy Food demonstrations were presented along with safe bike riding and Fire Rescue. Staff members won second place at a county wide dessert contest where the item was under 100 calories. Staff members participated in a nutrition seminar after school. Each day students have thirty minutes of recess except on their Physical Education day where students participate in health related lessons in classrooms and computer labs.
- IID. Students and personnel, who work in our cafeteria, support our recycling program to include recycling Styrofoam food trays. Before we began this project over 1,000 trays were thrown away each week. We have cut that amount to 350 a week. They are counted and brought to Publix, our local community partner, where they are recycled. Styrofoam and the waste of the material in the cafeteria is the primary concern of many students. Students began writing letters to the Principal and the Food manager on the use of foam trays verses plastic reusable ones. This message was discussed and reusable trays were purchased from another school. When the cafeteria is short staffed the paper trays are used and these trays are recycled. This issue is dear to the hearts of children in our school, and students in the Nature-Know-It Alls group are working with agencies to reduce the use of plastic in our cafeteria and to make the county aware of the waste and the use of non-recyclable items (3-6). Plastics brought from home, milk cartons and

anything labeled 1-2 are recycled at the school from the cafeteria. NKIA's spearheaded placing recycling totes at Hobe Sound Beach reducing garbage by 80%. Teachers in grades 3-5 use Reader's Workshop as their curriculum for teaching reading. This program does not use consumable workbooks; therefore, the reduction of paper and waste from publishing companies has greatly improved. Our PTA has reduced printing of newsletters by 50%, giving the youngest child the newsletter in the family when applicable.

- IIE. We are working with the FDOT's School Pool Program to reduce the use of vehicle traffic on campus and increase the use of carpooling, bike riding, walking and the use of the Yellow School Bus. We are also conducting an incentive for each class to participate in monthly by encouraging students to conserve emissions. The class that has the most student participation earns a 50.00 gift card to use for the class. This project is supported through Florida Department of Transportation. Our School Newsletter and the school marquee are used to share information about the Green School Program, including a statement about emissions from cars impacting the environment.
- IIF. Students work on early release day learning about the discharge from the St. Lucie Canal and how it affects our local ecosystem by developing ways to clean water. Our second graders are using a newly produced book from the Riverkidz which addresses the impact of water from Lake Okeechobee on our local estuaries. Rain barrels are in use for irrigation of our garden areas. Classrooms monitor the use of water in each classroom by making sure water is not left on for washing hands or cleaning up projects. Themes that relate to the community we live in such as water quality from the Indian River Lagoon, Coral Reefs and their importance in our ocean ecosystem.
- III A. Each early release is set aside for students to work with their environmental buddies' also known as "Audubon Days". Students in grade K are partnered with students in Grade 5, Grade 2 with fourth and first with third graders. Each early release day is centered around a theme that relates to the community we live in such as water quality from the Indian River Lagoon, Coral Reefs and their importance in our ocean ecosystem, invasive species in Florida such as the lion fish and the Burmese Python. Groups of teachers plan lessons centered on themes and students learn and work together on projects pertaining to that theme.
- III B. The Nature Know It Alis, which is an after school program for fourth and fifth graders, wrote letters, and made phone calls to Solid Waste Authority and our county commissioners petitioning that recycling bins be placed at Hobe Sound Beach. This project became a reality when four bins were placed at the beach in February 2015.
- IIIC. Kids enjoy documenting the increase of monarch caterpillars and then locating the crystalis in the garden, later the hatching and of the butterfly. This hands on experience is enjoyed by all especially the students who encourage their parents to use native plants in their gardens to promote butterflies such as the Monarch and Atala. Students routinely walk on the nature trail identifying native plant species along the tributary. A white mangrove plant project is underway to reduce the exiting growth of Brazilian pepper tree along the southeastern perimeter of the campus.
- IV A. Students in grades four and five participate in the Nature Know it Alls club which meets three times a month. The club centers their work on sustainable practices throughout the community. One such project is the implementation of recycling totes at Hobe Sound Beach. Another is to give toothbrushes and toothpaste to each student who needs them throughout the community. Speaking about emission controls in the car line name a few.
- IV B. The Rota Kids is a fourth grade team of students facilitated by our Principal, Joan Gibbons. This year the club doubled in size to 46 members. Students meet every Monday to plan and organize service learning projects such as a shoe collection that directly ties into Water.org providing clean water for every one on our planet, collecting over 1,000 pounds of food that was given to our local Hobe Sound Food Bank, fundraising for March of Dimes efforts to benefit babies born at risk. Rota Kids presents quarterly to our local Rotary Club by creating a speech which outlines our recent projects.
- IV C. Audubon is a school committee that represents staff and committee members. The team meet once a month planning activities to promote sustainable acts in our community. As part of our "Earth Day" activities on April 22, 2015, all students will participate in sessions supporting the learning of environmental issues from our community partners, Hobe Sound Nature Center, Jonathan Dickenson State Park, South Florida Water Management District, Florida Power and Light, Florida fish and wildlife and the science curriculum teacher from Martin county will be speaking about sharks. The school participated in the International Coastal Clean Up Day in September 2014 where over four hundred pounds of trash from our local beach was collected. We will celebrate another coastal cleanup sponsored by our school April 24 to continue celebrating Earth Month 2015. Working with the Stuart Veterans of Foreign Affairs, Bottle caps are being collected to be repurposed into parts for wheel chairs and items for walkers for disabled members of our society. Our school partner Hobe Sound Nature Center presented different animal related themes to grade levels. Kindergarten –Rainforests First –Manatees Second- Endangered Animals Third Alligators Fourth Gopher Tortoise Fifth Field trip to the nature center.

- V A. Our school principal, Joan Gibbons, supports our efforts of every green school initiative. She has been instrumental in bringing Green School recognition to the forefront in Martin County. In 2011 -2012 school year our school was the only school being recognized as a participant in green initiatives, through her efforts and workshop presentations from Pine Jog Environmental, Susan Toth, more than ten schools are practicing in green initiatives. Mrs. Gibbons invites school board members, chamber of Commerce and community members to see first-hand our leadership as a Green School. Recently, Mrs. Gibbons was the subject of a Sustainability research project under the auspices of Florida Atlantic University. It is her leadership that encourages others to become a green citizen in our community.
- V B. Trainings occur throughout the year that teachers may attend one was Dr. Broda, outdoor learning classroom that was presented at Pine Jog. An after school workshop will be held after Spring Break to share this information with the school. An Everglades presentation will be in March where two teachers will attend
- V C –D. All of our green initiatives are placed on our school website and shared with our learning community. Our mission statement supports our endeavors as learning and becoming an inspiration to other schools in our area to show their green initiatives.

Part C:

Our club decided that too many recyclables are left behind at Hobe Sound Beach. Bins should be placed there. First, a two year letter writing campaign followed by several attempts by phone. Second we enlisted the help of Teresa chandler, Solid Waste Authority, and the support of our Principal, Joan Gibbons. We achieved this goal on February 18, 2015. The beach has four recycling bins for our community to use.

Students in all grades have begun collecting container caps in their classrooms. This program initiated by our community Veterans of Foreign War of Stuart reuses these caps by melting and repurposing them into replaceable parts for wheel chairs. As of February we have collected 11,685 caps. These items have to be taken off of the containers so they do not hinder the machine as the recycling is taking place. These caps seize up the machine causing major breakdowns. The cap is one of the most collected items other than cigarette butts. This project helps reduce landfill space and repurposes items for another use. By including all members of this initiative we have instilled reusing practices in children's minds.

An annual event that Hobe Sound Elementary takes place in each year, the Hobe Sound parade in early December. Members in the Nature Know It Alls usually hand out candy during this event. After our first meeting this school year students wanted to do something to help our community and decided to repurpose T-Shirts into reusable bags. Students in the school collected gently used t-shirts and kids in the NKIA club created over 300 bags to hand out during the parade.

Our school continues to celebrate gardening and celebrating its bounties by sharing our harvest with our community. Students sample new vegetables and bring the rest home to share with their families. Many gardens are created at home from the excitement of students sharing their harvest with their parents.

Our school continues as a research laboratory for the Attala and monarch butterfly as student's plant, monitor and document the return of these threatened species. Over sixty milkweed plants were planted and are monitored daily to find evidence of the Monarch butterfly.

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