

## **Wilton Manors Elementary – P3 Eco-Challenge 2015-16 Overall School Winner**

### **Category 2 School Sustainability**

#### **Energy**

In an effort to reduce greenhouse gases and have a positive impact on our environment, our school is equipped with motion sensor lights and classroom teachers have appointed "light monitors" in classrooms without motion sensor lights. In public areas within the building teachers and staff have placed signage as reminders to conserve energy by switching off lights and unplugging electronics. To raise awareness of the importance of energy conservation the students at Wilton Manors Elementary created and delivered Public Service Announcements on our morning news show. Student-made posters displayed throughout the campus provided examples of effective conservation practices.

#### **Water**

Both indoor and outdoor water conservation has been a priority at Wilton Manors Elementary. Classroom teachers participate by utilizing rain barrels to gather acid filled rainwater for grade level gardens. Students attended Water Matters Day sponsored by NatureScape to raise awareness of water conservation and protection for South Florida. These students received and planted native drought resistant trees to reduce our water use and provide shade in our courtyard.

Having attended the NatureScape Broward Custodial Training, our head custodian monitors water usage through our onsite water meter and sprinkler system to positively impact our school's ongoing conservation efforts.

#### **Solid Waste**

Wilton Manors has a school wide recycling program that equips every classroom and office with at least one recycling bin. Printer cartridges and other electronics are recycled as well. Students created signage that has been posted throughout the campus to raise awareness of our recycling program. Keynote presentations are created and presented by students on the morning announcements to promote recycling. Second grade students manage compost to create nutritious soil for our gardens. Wilton Manors has completed the School Yard Habitat NWF Eco-Schools Pathways and has registered for the Eco-Schools Sustainable Food Pathways. Student council reached out to the student body to collect and sort plastic bottle caps for Caps of Love, a non-profit organization. Caps of Love receives payment for every tractor-trailer load of caps sent to the recycling plant in Kentucky. With the proceeds, wheelchairs are purchased for children with disabilities across the United States. Students learn about the process of up cycling, in which they take old items that would normally be discarded and use their creativity to turn it into a product that is of higher quality than the original. Up cycled products are brought in to be presented and are often donated to classes around the school.

#### **Air Quality**

During the first week of school, classrooms conduct surveys regarding student modes of transportation. Grand conversations then take place to raise awareness of the benefits of reducing fuel consumption, pollution, and car usage. We staggered our dismissal times and rerouted our traffic patterns to lessen vehicle emissions. We have worked in conjunction with our afterschool care providers to implement an anti-idling plan where they park their vehicles and pick up their students last. Our neighborhood families are encouraged to walk or bike to and from school whenever possible. Many families have taken action by carpooling. Not only has this helped with air quality, but it has also created a sense of community.



II. School Sustainability: Students participated in an up cycling project. Items that would have been discarded were used to create new items that were better than the original. New creations included white board, pillows, decorative phone chargers and a pogo board.



PLEASE, DON'T THROW YOUR BOTTLE CAPS AWAY! INSTEAD, SAVE THEM AND BRING THEM TO SCHOOL SO WE CAN HELP CHILDREN BY RECYCLING THEM.

Wilton Manors Student Council and K Kids will be working with the Kiwanis to collect bottle caps for the "CAPS OF LOVE" non-profit charity.

The caps will be sorted by student council and K kids at their weekly meetings and sent to Bluegrass Recycling in Kentucky by "CAPS OF LOVE". Approximately 8 tons of caps will bring "CAPS OF LOVE" \$3,200 which will be used to purchase wheelchairs for children across the country. Thus far, "CAPS OF LOVE" has provided 22 wheelchairs for handicapped children in need and **WE CAN HELP!**

### WHY SHOULD YOU HELP?

- These caps cannot be recycled in our trash.
- We can keep unnecessary trash out of landfills.
- It won't cost us a dime.
- Even the shipping charges are donated.

**PLEASE HELP!**



[www.CapsOfLove.com](http://www.CapsOfLove.com)

Atlantic West, Coconut Creek, Liberty, Margate, Norcrest,  
Park Trails, Quiet Waters, Riverglades, Sanders Park, Tradewinds,  
Wilton Manors & Winston Park Elementary Schools

3rd, 4th & 5th graders are  
invited to attend the  
**FREE Fun-filled**  
**7th Annual Earth Day Celebration**



**Saturday, April 9**  
**12 Noon to 3 p.m.**

**MONARCH HILL**   
**Renewable Energy Park**

2700 Wiles Road  
(1/2 mile west of Powerline Road, just north of Sample Road)

Please pre-register at  
[www.MonarchHillEarthDay.com](http://www.MonarchHillEarthDay.com)  
beginning March 1.

Space will be limited to the first 1,000 participants  
so register early! Younger siblings are invited.

Your school wins based on  
attendance of 3rd, 4th & 5th graders:

**\$3,000** 1st place  
**\$2,500** 2nd place  
**\$2,000** 3rd place  
**\$1,500** All others

**FREE**

Photos with former  
Miami Dolphins stars

Young At Art Museum  
recyclable art station

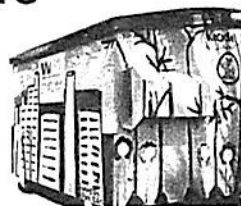
Environmental education

View the student-decorated  
Dumpster Art Contest entries

See the new Waste  
Management  
Compressed Natural Gas  
fueled truck on display

Don't forget to pre-register at  
[www.MonarchHillEarthDay.com](http://www.MonarchHillEarthDay.com).

RAIN OR SHINE



**FREE**  
**HOT DOGS**  
**& DRINKS**

**BOUNCE**  
**HOUSES**

**EARTH DAY**



Reflecting on the inquiry

1. What is our purpose?

**To inquire into the following:**

- transdisciplinary theme

Sharing the Planet

- central idea

People can help our planet by taking care of our natural resources.

**Summative assessment task(s):**

**What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?**

Students will research in groups of four a natural resource such as rocks, water, sun, soil, plants and animals, and fossil fuels (oil). Each student will plan and organize their information using a RAN chart book. This book will help them keep track of questions, new information, misconceptions, and confirmed thinking throughout their research. It will also help them organize the required information for the final product. Ex. Where can I find it, How do we use it etc. Each student will individually create a final product from the following choices: keynote presentation, pages (brochure), poem or song, or a big book (informational text). All of the above must address the central idea and will be graded on a rubric

Students will also include concerns in their presentations. This leads to students creating posters and Public Service Announcements (our school morning show) regarding information or tips people can do to help the environment.

**Class/grade:** Second Grade      **Age group:** 7-8 years

**School:** Wilton Manors Elem.      **School Code:** 002419

**Title:** Planet Patrol

PYP Planner

**Teacher(s):** M. Nazien, M. Martinez, N. Cuesta, S. Cruz, C. Salloum, H. Linker

**Date:**  
Proposed duration: Number of hours 36      over number of weeks 6



2. What do we want to learn?

**What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?**

Responsibility and causation

Related concepts: Conservation and resources

**What lines of inquiry will define the scope of the inquiry into the central idea?**

- Natural resources
- Ways people use natural resources
- Ways human activity affects the environment

**What teacher questions/provocations will drive these inquiries?**

Provocations:

1. What is a natural resource?

How do people use natural resources? (Form)

How do people affect the environment? (Connection)

How can we care for the Earth? (Responsibility)



Reflecting on the inquiry

3. How might we know what we have learned?

*This column should be used in conjunction with "How best might we learn?"*

**What are the possible ways of assessing the students' prior knowledge and skills?**

**What evidence will we look for?**

Teachers read the picture book Just a Dream in a close reading/ interactive reading style. This includes the teacher reading a little bit each day, stop and jot, turn and talks, and grand conversation. During this read aloud, the teacher will observe what students think about a boy who throws his trash on the ground and doesn't think twice about it. The teacher will be looking for if the students even notice that. The teacher will also look for students who notice that the boy doesn't have any knowledge of the importance of trees.

**What are the possible ways of assessing students' learning in the context of the lines of inquiry? What evidence will we look for?**

Students will research ways people use natural resources. They will participate in cause and effect lessons about human's impact on the environment.

5. What resources are to be gathered?

**What people, places, audiovisuals, related literature, music art, computer software, etc., will be available?**

Videos from [www.unitedstreaming.com](http://www.unitedstreaming.com) "Learning About Natural Resources", and [www.ecokids.ca](http://www.ecokids.ca), BrainPop Jr Natural Resources and Soil, Rocks, Minerals, Sun, Books: Just a Dream by Chris Van Allsburg, and The Great Kapok Tree by Lynne Cherry. Time for Kids "A Way to Help Planet Earth, Promethean Planet Earth Day flipchart. Michael Recycle  
**How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?**  
Field trip to the Broward County Landfill (Waste Management)

4. How best might we learn?

**What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?**

**Natural Resources** What are natural resources? After researching and viewing videos, students complete a circle map listing natural resources in their journals. A large class circle map with the title "Making Connections" is then displayed. Students add pictures of different natural resources to the middle circle on the map. Students choose their first and second choices of a natural resource they would like to research in depth. Teachers model how to pause informational videos and take notes to gather information.

Students then research their topic in small groups and create research books.

Students will learn how rocks turn into soil and view samples of various types of soil. They will conduct experiments and observe how different soils hold water.

They will take part in a digital lesson "How Soils Differ". In Science Lab, students will view slides of rocks and minerals and write their observations in their journals.

**Ways people use natural resources** Read Aloud: Wangari's Trees of Peace

United Streaming Video: Learning About Natural Resources While viewing the video, students fill in a chart of Inexhaustible, Renewable and Nonrenewable Resources. They define and give examples of each.

Students continue creating their research books to include ways people use natural resources. Using their research books and informative writing rubric, they create an informative piece of writing (Keynote or Big Book) explaining their natural resource, why it is important, how it is used.

**Ways that human activity affects the environment** Students will read The Great Kapok Tree and sequence the events focusing on people's impact on the environment. Students create mini landfills containing banana skin, paper towel, apple, styrofoam and aluminum. They water it and observe changes over a four week period. They keep a record of their landfill observations, sequencing what happens to garbage. They create a mini-science board of the process and their findings.

Students will take a field trip to the landfill and learn how it operates. They will also learn about space needed to hold the amount of garbage created in the local community.

**What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?**

**Communication skills-** when researching about the Earth and its natural resources and during writing activities.

**Thinking skills-** Students will use thinking skills when they are learning new information about natural resources and they have to make connections to the environment.

**Research skills-** Students will use research skills when they use their RAN chart books. These books will keep their new information, wonderings, and misconceptions organized.

**Self-management skills-** while on the field trip and researching in small groups  
**Learner Profile:** Being caring and principled will be demonstrated when students are given the opportunity to save paper and recycle in their classrooms.

Reflecting on the inquiry

6. To what extent did we achieve our purpose?

**Assess the outcome of the inquiry by providing evidence of students' understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.**

After studying natural resources and why we need them, students demonstrated ways they could care for the earth at home and at school. At school, they saved paper by making sure they wrote on both sides. They also recycled paper in their classrooms. Many said they turned off the water at home while brushing their teeth and washing their hands. Many placed signs around the classroom to remind people to turn off the lights in the bathroom, use both sides of paper, use scrap paper and use the pencil even if the eraser is gone.

**How you could improve on the assessment task(s) so that you would have a more accurate picture of each student's understanding of the central idea.**

Teachers need to give students a better recording sheet for their landfill observations so they get accurate pictures of students' understanding of the central idea.

**What was the evidence that connections were made between the central idea and the transdisciplinary theme?**

Students understood the relationship to the theme, Sharing the Planet. They realized that we all have a responsibility to care for our Earth. They also had interesting discussions about the following quote by Squanto- "The land does not belong to the people. The people belong to the land." Some students created "clean up" crews for the cafeteria and the school grounds. They would clean up any trash they saw around the school. Our grade level also kept a garden of cucumbers. Each class helped maintain the garden and helped harvest. Some students were very interested in compost as they learned about it through their research of soil. We were gifted a compost machine by our custodian because the students wanted to start one and asked him if they would help them make one. He bought one for them and they have been saving their apple cores, bananas, paper, leaves etc. They had to research how to maintain the compost and learned when it was getting stinky it was because we were putting too many "greens."

7. To what extent did we include the elements of the PYP?

**What were the learning experiences that enabled the students to:**

**• develop an understanding of the concepts identified in "What do we want to learn?"**

Students developed an understanding of responsibility through reading activities, videos, class discussions and the field trip to the landfill. They understood that our actions are connected to taking care of the earth and that we need to make the right choices to help keep the earth clean.

**• demonstrate the learning and application of particular transdisciplinary skills?**

Communication skills were demonstrated through working in research groups and presenting their information on their natural resource. Thinking skills were applied by creating a list of ways students can care for the earth at home and at school. Students also had to use thinking skills to show their concerns for the environment at school by creating a PSA or a poster.

Research skills were demonstrated when observing and recording information about their landfills. Students also used research skills when students researched natural resources.

**• develop particular attributes of the learner profile and/or attitudes?**

In each case, explain your selection

Learning experiences such as the field trip to the landfill, creating mini landfills and observing changes in the contents over time, various reading activities and a home/school connection with ways to care for the earth, helped to develop the profiles and attitudes of being caring, principled and respectful. Creating our grade level compost also developed the attitude of caring for the environment. They understood that all our garbage goes to the landfill and they saw that was pretty large so the least they could do was make nutritious soil.



Reflecting on the inquiry

8. What student-initiated inquiries arose from the learning?

**Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.**

Students asked, "What happens to our garbage?" This was incorporated throughout the unit.

*At this point teachers should go back to box 2 "What do we want to learn?" and highlight the teacher questions/provocations that were most effective in driving the inquiries.*

**Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act**

Some students made posters about recycling and some voluntarily picked up trash on the school property. They shared information with their families on taking shorter showers, recycling and turning off water when washing hands or brushing teeth.

9. Teacher notes

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**FOR NEXT YEAR, TEACH MEASUREMENT FOR MATH DURING THIS UNIT.**

Reflecting on the inquiry

1. What is our purpose?

**To inquire into the following:**

- **Transdisciplinary Theme:**  
Sharing the Planet
- **Central Idea:**  
Conservation of the environment is dependent upon human interaction.

**Summative assessment task(s):**

What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?

After discovering man's positive and negative impacts on the Everglades, students will be given a choice to research an endangered ecosystem such as the Rainforest or Coral Reef. They must include information on the ecosystem, man's positive and negative impacts, an endangered species from that ecosystem and what action can be taken to preserve the ecosystem. They will create a Keynote to present their findings.

At the end of the unit, students will reflect on their development of skills, attitudes, and profiles used while completing the unit of inquiry. The students will assess themselves on rubrics.

**Class/grade:** 4<sup>th</sup> grade      **Age group:** 10-11 years

**School:** Wilton Manors Elem.      **School Code:** 2419

**Title:** Depending On Each Other

**Teacher(s):** A. Tuzzio, A. Simon, M. Scales, V. Quiles

**Date:** November 17, 2014-January 16, 2015

**Proposed duration:** Number of hours 36      over number of weeks 6



PYP Planner

2. What do we want to learn?

**What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?**

Causation, Connection and Responsibility  
Related Concepts: Conservation, sustainability, ecosystems

**What lines of inquiry will define the scope of the inquiry into the central idea?**

- ecosystems
- the relationship between humans and ecosystems
- protection of ecosystems

**What teacher questions/provocations will drive these inquiries?**

What is an ecosystem?

How have people impacted ecosystems?

How are man and nature connected?

Do we have a responsibility to protect ecosystems?

### Reflecting on the inquiry

3. How might we know what we have learned?

*This column should be used in conjunction with "How best might we learn?"*

**What are the possible ways of assessing the students' prior knowledge and skills?**

**What evidence will we look for?**

Students will illustrate a picture of what they think the Everglades is and what plants/animals are part of that ecosystem. After going on a field trip to the Everglades, students will illustrate another picture of what the ecosystem actually looks like, detailing specific animal and plant life.

**What are the possible ways of assessing students' learning in the context of the lines of inquiry? What evidence will we look for?**

Students will create maps contrasting the Everglades of the present and past. Evidence of learning will be shown through explanation of what has happened to this ecosystem over the past two centuries.

5. What resources are to be gathered?

**What people, places, audiovisuals, related literature, music art, computer software, etc., will be available?**

Everglades by Jean Craighead George.; Coral Reef Holiday Park Field Trip ; iPages software Chapter books: The Missing Gator of Gumbo Limbo and Charlie Pierce the Last Egret. The Storm in the Mangrove. Poem: Ballad of the Lost Mangrove  
The Last Egret video with Everglades information: <http://palmbeachschools.org/ten/>  
United Streaming Video: National Parks: The Florida Everglades  
Big Bad Wolf by Linda Zajac (Highlights Article)

**How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?**

Posters and books will be displayed in the classroom. Airboat tour guides at Holiday Park will talk with students, take them slogging and have them participate in a "Critter Lab". With critters found in the water.

4. How best might we learn?

**What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?**  
*Frontloading*. What is the Everglades?

- Students draw a picture of what they think the Everglades looks like including the plant and animal life. Compare this picture to a picture created after they have their field trip.
- Students view the video The Loxay; students write an alternate ending that changes the original impact into something positive. Display a seed to represent the last Truffula seed "What would you do if you had the last Truffula seed?"

- **Action Cycle activity**: Choose one negative impact from the video, What Action would you take to make the impact less harmful to the Truffula forest? Reflect on your feelings on how humans are impacting the environment today.

#### Ecosystems

- After viewing the video: National Parks: The Florida Everglades to establish prior knowledge, students take a field trip to the Everglades and participate in slogging, science labs and an airboat tour.
- Students will investigate a mini ecosystem at the school by roping off a small area and recording the living and nonliving things that can be found in that ecosystem. They will move to a nearby area and repeat the procedure comparing/contrasting their findings.
- Students will use resources to create maps contrasting the Florida Everglades of the past and present.

- Students investigate and compare/contrast peoples impact on the Everglades, Coral Reef and Rainforest through viewing videos from Brain Pop and United Streaming Relationship between humans and ecosystems. Read aloud: The Last Egret (class set of chapter books)

- Using the science book as a resource, students create a food chain in Kidspiration and then expand it to a food web to show the interdependence of living things.

- In science lab, students wear name tags with animal names and they roll the yarn from one to another based on what they eat. They create a web of yarn representing a food web.

- Students will take a field trip to the Everglades and reflect on their experience. They will speak to park rangers, participate in a critter lab, Slog and go on an airboat ride to discover the fauna and flora of the ecosystem and test water for traces of pollution. Create a food web showing interdependence in the Everglades.

#### Protection of ecosystems

- Case studies of local issues depicting man's negative/positive impacts

- Students investigate their own impacts by calculating their daily water use and find out how increased water use in South Florida can harm us

- Students read The Great Kapok Tree and chart how cutting down the tree will effect the animals dependence on that tree for survival

- **Water pollution/population activity**: jars of pond water are placed in the classroom and algae grows. Pollutants such as motor oil are introduced to each jar. Students observe and record their findings as the algae is impacted

**What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?**

Research Skills: observing, collecting, recording data

Social Skills: group decision making

Self-Management Skills: time management, organization

**Learner Profile**: Caring, Reflective, Thinkers

**Attitude Connections**: Respect, appreciation, commitment



Reflecting on the inquiry

6. To what extent did we achieve our purpose?

**Assess the outcome of the inquiry by providing evidence of students' understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.**

Students understood the central idea of man having positive and negative impacts on ecosystems by researching and creating a power point presentation on either rainforests or coral reefs.

**How you could improve on the assessment task(s) so that you would have a more accurate picture of each student's understanding of the central idea.**

The summative assessment was completed with the power point program. At times, students had a difficult time navigating through the steps it took to create each slide because they were acclimated to using keynote. A short training in the program before creating their presentations would be useful.

**What was the evidence that connections were made between the central idea and the transdisciplinary theme?**

The students understood the theme Sharing the Planet through the discovery of the connection between humans and the ecosystem. They realized that we need a balance between human needs and animal/nature's needs.

7. To what extent did we include the elements of the PYP?

**What were the learning experiences that enabled the students to:**

**• develop an understanding of the concepts identified in "What do we want to learn?"**

Causation: through research into man's impact on an ecosystem

Connection: through the field trip to Holiday Park, students realized that what man does impacts the environment.

Responsibility: through the brochures created by students, they realized that people take action to save an ecosystem.

**• demonstrate the learning and application of particular transdisciplinary skills?**

Research Skills: when researching an endangered ecosystem (organizing data)

Social Skills: when working cooperatively in small groups (cooperation)

Self-Management Skills: when planning and using time effectively to

complete the summative assessment. (time management)

Communication Skills: when working with in a team to create and present a power point presentation. (presenting)

**• develop particular attributes of the learner profile and/or attitudes?**

The profiles of caring and reflective were addressed through out the unit. Students reflected upon their findings about an ecosystem, and showed care for the ecosystems around them.

Reflecting on the inquiry

8. What student-initiated inquiries arose from the learning?

**Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.**

If animals were here first, why are people taking over?  
Why do people hurt the environment?

*At this point teachers should go back to box 2 "What do we want to learn?" and highlight the teacher questions/provocations that were most effective in driving the inquiries.*

**Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.**

One class recycled cans, bottles and glass to buy an acre of rainforest or donate to Friends of the Everglades.

One class wrote letters to the Governor about protection of the Everglades and they questioned our county's name which is the name of a person who wanted to drain the Everglades and destroy it.

Students brought in books about ecosystems and made dioramas or posters about an ecosystem

Students created up cycling projects where they chose a used item and figured out ways to change it into something new.

9. Teacher notes

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