

**2017**

**Application Form**

**Keep Palm Beach County Beautiful, Inc.**

**Great American Cleanup Mini-Grant Program**

**I. PROJECT INFORMATION**

A. Project Name: Aeroponics Gardening Solutions for Students from K-5

B Project Site Name and Full Address: Citrus Cove Elementary School - 8400 Lawrence Rd, Boynton Beach, FL 33436

C. Type of Project Proposed: Elementary School Garden Implementation

D. Date(s) of Project Commencement/Completion: Complete build April 22 (Earth Day): garden is ongoing

E. Owner of the site: Principal- Laura Green Owner permission attached: Yes X No \_\_\_

**II. APPLICANT INFORMATION**

A. Lead Organization: The Green Initiative

B Type of Organization (Local Government, non-profit, neighborhood group etc): School Improvement Group

C. Name and Title of Contact Person/Project Manager: Danielle Christy - Project Manager & Teacher

Address: 8400 Lawrence Rd, Boynton Beach, FL Zip: 33436

Email: danielle.christy@palmbeachschools.org Cell Phone: 954-871-9457

**As the project manager, I hereby certify that all parts of the application package have been read and understood, that all application requirements have been met, that all information submitted herein is true and correct and represents the desire and intent of the applicant to install and maintain the proposed project according to the plans, specifications, and costs attached herein.**

Signature: Danielle Christy Date: 02/09/17

## **Project Information Sheet**

(Attach any additional pages if necessary and/or photographs and plans, i.e. landscape plans, that will help in the evaluation of the project. Please convert entire document including application, photographs and drawings to a .pdf file and email to info@keepPBCbeautiful.org )

### **Summarize the project to be undertaken:**

We aim to bring our children back to nature while progressing to the future. Citrus Cove Elementary School will be introduced to a whole new world of gardening. This goal will be achieved through aeroponics vertical farming and classic raised beds. These self-sustaining and hands-on systems will give students a chance to explore growth and nature in a whole new way. Through an edible garden we will grow fruits and vegetables for the students to eat and sell as a way to nourish their bodies and raise money for the school. There is a wide variety of state standards that pertain to plants and growth from K-5. There is an entire curriculum that has already been developed with a partner school. This can be incorporated after the garden has been well established. This new-aged garden will engage kids in academic exploration while providing a therapeutic escape in the middle of campus. Studies have shown that time in and around nature can calm symptoms of ADHD. Every single student at Citrus Cove would benefit from this garden system.

This grant will be the stepping stone into a long-term commitment of STEAM education. This project idea is aligned with the STEAM standards in every definition of the acronym. The principal has generously provided a large plot of land that will be devoted solely to this project. We hope to continue to grow this project into a fully-functioning and self-sustaining food forest. There are also future plans for making it an area for students to study and calm their nerves. The sky's the limit when planning the possible implementations.

### **Describe the site as it is today and why changes are needed:**

Citrus Cove Elementary School is a STEAM school with primarily low socioeconomic status students. The school has 60% of their students receiving free and reduced lunch. Unfortunately, that is not enough to qualify the school to receive additional money from the government, but it is high enough that the majority of students live in poverty. They have attempted gardening initiatives in the past, but have not been successful. This aeroponics program is unique in its ability to grow effortlessly and will for the first time provide the school a long lasting, self-sustaining garden. The newfound success will bring a bright green environment to a concrete campus. It will give teachers, students and staff a break from the hard work they put into educating and being educated. The current garden is a 4ft. by 4ft. block filled with twigs and leaves. This modern garden will provide the 20 year old school a much needed update to match their new STEAM initiatives. This garden will be something that will impact children for the rest of their lives. Being introduced to the future of agriculture will inspire the future farmers, scientists, and engineers of the world.

### **Describe the project as envisioned when complete:**

This will improve the property to provide a public service permanently. It upfront provides a garden for beautification as well a food source all while teaching the fundamental educational keys and how they tie to the world around us. This program can be the base of a much needed movement. It will allow teachers to be hands on in creating viable curriculum and/or in/after school activities tied to farming/nature. It can branch into school run farmers markets allowing funds the funds collected to provide outreach into communities and at risk families. We will build it to be self sustaining and duplicable to shed fruit for years to come and to branch past it's initial mission. Let's together make Earth day every day. Through using edible food forests and aeroponics, we will lead the way towards a greener future. The scope of this project is much larger than one day or one location, but what better day then this one to begin such a journey. By empowering individuals to engage and help a whole community, we can cause the community pride to flourish and

reconnect with the Earth one stem at a time. By building off of a STEAM oriented campus we will set a spark to get children's feet planted back on the ground. In using recycled materials we will cover every basis of this mission and what it sets out to do in the fullest scope. In fact, it takes things one step forward to a viable sustainable model.

When complete, the project will be comprised of one fully functioning aeroponics system, three raised beds, and an edible tree arrangement. We will have a rain collection barrel to feed water to the garden. The garden will sit in a main area of campus surrounded by buildings with large windows. There is a beautiful oak tree to one side with plenty of room for the project to grow in the future. There is constant foot traffic of students and staff. This project will take an unused and underappreciated part of the school and make it a focal point of the learning community.

**Describe your work plan from the beginning of the project to completion (include dates and work to be performed):**

**Day of approval:** Garden Naming Competition (to build excitement)

**April 1:** Have all materials purchased and delivered

**April 8:** Contact and obtain parent volunteers

**April 21:** Insure builders and materials will be ready and prepared (including raised beds, aeroponics system, and all growing materials including seeds)

**April 22 (Earth Day):** Start planting and implementing the project using all of the materials and parent volunteers.

### **Organization Information Sheet**

**Describe your organization in relation to the proposed project:**

We as a society have to do all we can to clean up and get back to our roots. It is important to instill this green movement into the future; within our youth. Aeroponics is the future of farming. We will empower individuals and engage communities for the sake of growth and development. Through using air, water, nutrients, and sunlight in this revolutionary aeroponic growing system; we utilize space to yield an abundance of healthy food. It is the best growing system in existence. It simplifies growing into a clean, turn-key, efficient system. Not only do we wish to teach these children the future of vertical farming, we also aim to help them experience traditional growing methods. Building raised bed gardens for side by side comparison is important to show all aspects of agriculture and the science behind it. This project is aimed to spark passion and allow children to think in an organic mindset. We will ensure the general build of the whole project is done correctly with our expertise. As project manager, and teacher at Citrus Cove, I will personally be overseeing the project's growth and success. My personal goal for the project is to build upon the educational practicalities and STEAM opportunities that can be provided.

**Describe the partnerships (if any) with other entities that have been formed for the project and their**

**contribution:**

The Green initiative has a close partnership with the manufacturers and network of growers. This partnership provides our organization the opportunity to afford and implement a new aged system into a

public community. It also allows us to build and plant the garden to fruition to ensure growth in abundance. Our goal is to partner with schools throughout the state. This will create additional educational partnerships creating satellites of our original model. Citrus Cove will act as a flagship school to show the success of this type of program. We will also help to tie the school into our online growing forum to allow any staff member to find solutions from leading experts on the field quickly and efficiently. This will tie the public education system to a nation wide network of diverse professional growers. The designs are very simple and easy to assemble, so inexperienced volunteers will be able to continue growing their gardens statewide. Older students can assist in the building process to allow for a sense of pride and ownership in the project. Possible partnerships include, but are not limited to, organizations such as FFA. This can propel students forward with their well established interests into lifelong career paths.

**If applicable, describe what the organization will do to ensure the maintenance of the project for a minimum of the next 3 years:**

As a teacher at the elementary school, I will be able to participate in hands on daily maintenance. I will take part in every process from seeding to harvesting with my own students and school wide community. Once we get going, we will set up a google sheets account for the project with growth charts. This will provide data, immediate updates, essential information for everyone involved. The distributor and manufacturer can watch the levels to keep a close eye on things. It will make future consultations much simpler in the long run. The manufacturer and distributor will also help with coordinating the build, getting the operation growing and thriving, and setting tasks that the class can do periodically to maintain the system. This is intended to be turn key and ready to sustain itself viably and efficiently. This will, once planted, be maintained by the elementary school and staff members, including the project manager. The Green Initiative is here every step of the way. The long term goal of this project is to empower our youth to take initiative, connect to our Earth, and live with a health conscious mindset to lead the way into the green revolution.

**Budget Information Sheet**

Please indicate below how the \$1000 funds for the grant will be used. If receiving match money or in-kind services from other sources, please detail in the second chart below.

| Item  | Vendor Name          | Quantity | Cost  |
|---|----------------------|----------|-------|
| Aeroponics System (Fully equipt)  | Aeroponics Solutions | 1        | \$425 |
| Rain catcher/compost  | DIY                  | 3        | \$100 |
| Fruit/vegetable/herb seeds  | Jonny Seeds          |          | \$50  |
| Shade Cloth, lumber, hardware, soil, drainage rock and jiffy greenhouse pro starter | Lowe's               |          | \$225 |
| tree saplings, plants, and foliage spray  | Urban Farms          |          | \$200 |

TOTAL PROJECT BUDGET \_\_\$1,000\_\_\_\_\_