

Education Foundation Grant

Project Name: Vertical Aeroponic Kinder "GARDENERS"

This project will hit on three target areas: Math, Literacy, and Social Emotional Learning

We would like to outfit each of our kindergarten classes with a vertical aeroponic gardening tower. Our entire kindergarten team will be utilizing the Buck Institute Model of project based learning this year and would like to create a long-term, multi-year sustainable project that ties to real world application. The kindergarteners will be learning how to pollenate plants and grow fruit within their own classrooms.

Our Little Indians will learn how to think like a scientist by making predictions, observations, and recording measurements. They will begin to share their ideas and collaborate with classmates, with authentic opportunities for social skill building. The learning will continue as they dive deep into literature exploring plants, gardening, life-cycles, and healthy eating habits. We will use this opportunity to hone in on the pre- writing and writing capabilities through documenting observations and recording growth and weight measurements throughout the process. All of this will be placed in a recording journal that will showcase the ELA and Math standards scaffolded throughout the project for kindergarten. We anticipate a family event to share our learning with a student presentation and celebration of success. We are excited for the extra bonus of being able to send home fresh fruits and vegetables that the kiddos have grown in their very own classroom!!!

Features of the garden include:

- No gardening experience is necessary
- Grows many fruits and almost any vegetable, herb, or flower—faster than in soil
- Uses less than 10% of the water and land involved in traditional gardening
- Reduces the need for pesticides, insecticides, or herbicides

Targeted Population: Kindergarten- Approximately 90 students

Succinct Summary:

The Issue: This project will focus on collaboration and reinforcing positive social skills. The real world application of math and ELA standards will be showcased through the students data collection journal.

The Change: What change do you intend to see as a result of this grant?

Student growth! Embracing aha moments and stronger collaboration and speaking skills as they work together and problem solve, leading up to a final presentation to experts in our local community. Our students will build confidence and an appreciation for gardening.

The Action: What strategic activities will be included in this grant (what are the steps)?

Planting seedlings, observing and measuring growth, and tying in literacy standards with complex texts on gardening, plants, and healthy eating. Students will create a presentation and report their findings to local experts and our families. Top presentations will be filmed and shared with entire school on morning announcements encouraging healthy eating across VBE!

Grant Oversight: Who will be responsible for the project? Who provides the oversight? Who will insure that the project is sustainable?

The project is a Kindergarten PBL initiative. Grade chair, Jen Paulk, will be monitoring lesson planning and making sure resources are distributed and follow through occurs throughout the grade level. This will be a yearly ongoing initiative; however the focus of the tower garden may change each year to support the PBL initiative.

Monitoring Progress and Results: How will progress and results will be monitored and reported?

We anticipate the students will have extreme buy in and engagement in the ELA and math standards as a result of the relevance and real world application of the project. We will be using iready diagnostic data to support our initiative and comparing it to previous years kindergarten data to show growth.

Volunteers: Does this proposal provide an opportunity for community volunteers to support your school? If so, how many volunteers, how often, and what days/times?

Yes! We are very excited to offer opportunities for local horticulturists and avid gardeners to support the tower gardens in the classroom. They can help students measure plants, talk about connections with gardening and farming in our local community, and assist with students in the hands on activities that will occur.

Amount Requested and total project cost \$5,650

Itemized Budget: Provide a line by line, itemized budget of all items needed for the project, including cost.

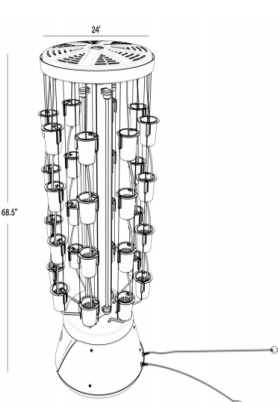
Vertical Hydroponic Indoor Gardening System \$1,130 per teacher including shipping

Total cost \$5,650

<https://nutritower.com/product/nutritower-32-pot-system/>

<https://www.youtube.com/watch?v=IHF9278dKH4>

Nutritower V2 Size and Proportions



SIZE
 Height: 68.5 inches
 Width: 24 inches

MATERIALS
 Base: Steel internal structure
 Column: Aluminum Extrusion
 Outer/inner pots: Injection molded food grade HDPE
 Top/base caps: Vacuum formed polypropylene
 Door: Vacuum formed polypropylene

WEIGHT
 Base: 45lbs
 Column: 20lbs
 Full unit: Approx. 70lbs

PLANTER POTS
 The Nutritower comes with 32 pots Standard
 Small Pot size 0.8L

POWER
 Ballast: 1 x 4 lamps - 54 watts each
 Power range 120 - 240 volts
 Usage: 216 watts

LAMPS
 4 x 54 watt TSHO fluorescent - 6400k

PUMP
 120 -240 volts
 Pump lift: 1.7m head min
 Water storage: 3.5 gallons (13.2 L)

www.nutritower.com
sales@nutritower.com

Order Summary



Nutritower Vertical Hydroponic × Indoor Gardening System

Nutritower indoor 32 plant vertical gardening system.

Quantity

Subtotal	\$5,250.00
Shipping	Flat Rate: \$400.00
Taxes	\$0.00

Order total **\$5,650.00**

