



2018-19 Duke Energy Foundation STEM Grant

DEADLINE October 18, 2018 4:00 pm Foundation Office via Jackrabbit or Email

- This Classroom Grant is for 2018-2019 school year.
- Funds must be used to address a STEM related project.
- All funds must be used by May 1, 2019. A final program evaluation must be submitted by May 15, 2019.

Contact Information	
Applicant Name: Dustin Strate	Position: STEAM Teacher
School: Umatilla Elementary	
Address: 401 Lake St Umatilla, FL 32784	
Phone: (352) 669 - 3181	Fax:
Email Address: strated@lake.k12.fl.us	

Detailed Project Information
Project Title: Energy and Literacy
What priority area(s) will your project address: This project will be focused on students creating a renewable energy source with a focus on tested Florida Science Standard of Big Idea for forms of energy.
What is your estimated start date: January 3, this will be to follow the Lake County District Focus Calendar
Estimated number of teachers who will participate in this project: 15
Estimated Number of Total Students Impacted by project: 350
Grade Levels to be Addressed: 3-5

Program Background: Every year I teach a book called Energy Island that is based on true events of a community switching to renewable energy sources, specifically wind turbines. While doing a small book study, students develop their own wind turbines to make them as efficient as they can. All aspects of energy types and transformations are studied to ensure proficiency with the Florida Standards that are tested in science. This is geared to be a STEAM maker's project giving students time to explore different designs using the engineering process.

Project Summary:
 Students will do a book study on the book Energy Island to learn about energy types and transformations and also what problems arise with energy types. The focus will be what engineering solutions we can use to solve these problems. Students will be given tasks with the book for background knowledge on energy and will apply this to develop their own wind turbines. Students will develop their own system to efficiently collect air to spin a generator and will understand the transformation and how this produces electricity to use. We will hold a competition at a school level to showcase the best design while still being able to celebrate every student.

<p>Need: Teacher Geek Mini Wind Turbine Activity, 350 kits Energy Island Class Set of Books 20 Digital Millimeter 10 Sets to share with classrooms Alligator Clip Electrical Leads</p>
<p>Project Goals and Objectives: Students will understand the importance of Literacy and using this as a tool to share Scientific and STEAM knowledge.</p> <p>Students will be able to identify energy types and how they can be transformed for everyday use.</p> <p>Students will understand how to apply the engineering process to develop their own wind turbines.</p>
<p>Evaluation Plan: Students will be assessed using a standards based assessment based on the Big Idea standards for Energy. Students will also have a chance to display their creations with family members. Projects will be judged using the millimeters to measure the power generated by wind turbines.</p>

Budget			
Category of Expenditure		Dollar Amount	Related Activity
Computer Hardware			
Computer Software			
Other Equipment (not computers)		\$80.00	Teacher Geek Classroom Millimeter x 10 (\$8.00 for one)
		\$20.00	Alligator Clips for students to connect their generator to the mustimeter.
Competition Registration Fees			
Program supplies		\$1,435.00	Wind Turbine Supplies to Support 3-5 th Grade Students
		\$110.00	Class Set of Energy Island Book
TOTALS		\$1,645.00	

Program Approved By: Dianne Dwyer
Principal

Funds Payable to: Umatilla Elementary

Address: 401 Lak St Umatilla, FL

Phone: 352-669-3181 Email: _____

Requesting party has read and agrees with the funding policies of the Educational Foundation.

Signed DASA Date 9-6-18
To be completed by foundation staff/board

Program meets Duke Energy Foundation's Mission/ Funding Policy Y N

Director Recommendation: _____

Executive Board Recommendation: _____