



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: Matt Burris	Position: 5th Grade STEM Bowl Coach, 5th Grade STEM Club Sponsor, 5th Grade Science Teacher (Departmentalized).
School: Astatula Elementary School	
Address: 13925 Florida Avenue Astatula, FL 34705	
Phone: 352-343-1334	Fax: 352-343-1457
Email Address: burrism@lake.k12.fl.us	

Detailed Project Information
Project Title: 5th Grade STEM Engineering Challenges
What priority area(s) will your project address: STEM with a focus on engineering
What is your estimated start date: October or ASAP.
Estimated number of teachers who will participate in this project: 1
Estimated Number of Total Students Impacted by project: (115) 5th graders in my science classes plus (20) 5th grade STEM Club members
Grade Levels to be Addressed: The entire 5th grade.

Program Background:
 To maintain our Lake County School Board Gold STEM status, Astatula Elementary must have after-school STEM clubs that meet weekly from October through May to practice STEM questions and Engineering challenges. We are also mandated by the LCSB to include STEM lessons throughout the school year in our daily classes. I am the 5th grade STEM Bowl coach, 5th grade STEM club sponsor, and the 5th grade science teacher so I am always looking to add more STEM challenges to my daily lessons and my after-school STEM club. These Teacher Geek interactive products are highly engaging and are a very effective way to incorporate STEM engineering challenges into the curriculum.

Project Summary: In my five science classes and in my after school STEM club I divide my students into five lab/table groups of usually four students per table. With these Teacher Geek Engineering Challenge 10 pack kits, I could pair up students making 10 lab groups that would work cooperatively together using their creativity and problem solving skills to solve each of the engineering challenges. The kits include challenges where students have to use recyclable and included kit materials to engineer a ping-pong ball launcher, a rubber band racer, an electric racecar, a sail car, and a mini wind turbine. The kits come with the needed materials, graphing

sheets, lab sheets, and additional components to encourage the engineering design process. This mirrors what my STEM Bowl team has to do for their annual STEM Bowl competition and is a great way to promote STEM in the classroom.

Need: We are currently a "C" school this year and we missed becoming a "B" school by one stinking point as measured by the state. Our Lake County Superintendent has stated that she wants all Lake County Schools to be a "B" or higher. Our science scores were good with 61% percent of our 5th graders scoring a 3 or higher on the science FSA last year, but I want to obviously improve on that. I would love to have at least 65% of our 5th graders score a 3 or higher on this year's science FSA test. These Teacher Geek kits could really help me with that 65% goal, which, in turn, could help us be bumped back up to a "B" school making everyone happy. In addition, my STEM Bowl team placed 8th in last year's LCSB STEM Bowl and I want to have my team place in at least the top 5 this year. GO BOBCATS! Yeah!

Project Goals and Objectives: These engineering challenge kits will reinforce these 5th grade science benchmarks topics (Use of Models, Force and Motion, Forms of Energy, Transfer of Energy, Gravity, Inertia, and Friction) as well as these 5th grade math benchmarks (Measuring Speed and Distance, and Calculating Average).

Improve our science FSA score from 61% of our 5th graders scoring a 3 or higher to 65% scoring a 3 or higher
 AES improving its grade from a "C" school to a "B" school

Evaluation Plan: *Describe how you will measure outcomes and evaluate your project.*
 Engaged and excited 5th graders using creativity and problem solving skills to engineer the challenges.
 5th grade STEM Bowl team places in the top 5 and our school gets the "B" we deserve. Next year an "A"!

Budget			
Category of Expenditure	Dollar Amount	Related Activity	
Computer Hardware			
Computer Software			
Other Equipment (not computers)	\$381.95	Rubber Band Racers (10 Pack), Electric Race Cars (10 Pack), Sail Cars (10 Pack), Ping Pong Ball Launchers (10 Pack), & Mini Wind Turbines (10 Pack).	
Competition Registration Fees			
Program supplies			
TOTALS	\$381.95		

Program Approved By: Robert Sheu

Principal

Funds Payable to: Astatula Elementary
Address: 13925 Florida Avenue
Astatula, FL 34705

Phone: 352-343-1334 Email: burrism@lake.k12.fl.us

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

Signed *Matt Burris* Date *9/10/18*
To be completed by foundation staff/board

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

Director Recommendation: _____

Executive Board Recommendation: _____