

## Educational Foundation of Lake County



## 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: Karen Krawchuk	Position: teacher	
School: Minneola Charter School		
Address: 320 East Pearl Street, Minneola, FL 34	4715	
Phone: 352-394-2600	Fax: 352-394-2079	
Email Address: krawchukk@lake.k12.fl.us		

## Detailed Project Information Project Title: The Evolution of the Automobile What priority area(s) will your project address: science, technology, engineering, math, social studies What is your estimated start date: November 26, 2018 Estimated number of teachers who will participate in this project: 11

Estimated Number of Total Students Impacted by project: 200

Grade Levels to be Addressed: Kindergarten

**Program Background:** This unit will introduce automobiles, how they have changed and what has changed because of the automobile. The children will take a closer look at how the moving assembly line changed transportation in America, and Henry Ford's ability to create an affordable automobile came from persistence and a will to succeed.

**Project Summary:** The students will be introduced to how automobiles began. Background knowledge and research on the computer to show what cars were like 100 years ago. The students will be shown a PowerPoint to do a compare/ contrast activity to see what has and hasn't changed over a ceentury. The students will learn about affordability, Henry Ford and the moving assembly line. The students will participate in an assembly line activity, and see how much faster we can build cars as a team, instead of each of us building our own. They will learn about how working as a team, cars were built quicker, which made them more affordable for the average person. The students will be able to see actual cars from the different decades on December 7<sup>th</sup>, as we will have cars ranging from 1914-1960 visit our school. The drivers will give the background of each cars, and answer questions from the students. After the students see the

cars, and what inventors were able to do, they will have the task of creating their own vehicles using a computer website and a S.T.E.M. vehicle building kit. They will also create advertisements for their "new" cars!

**Need**: I would like to receive funding to help with the assembly line materials (car assembly kits) and the purchase of the Car Designer S.T.E.M. Lab. These items will give the unit a greater impact as it will give them a hands on approach to learn about the assembly line as well as learning about different ideas for building vehicles. The items will definitely enhance the lesson and the learning involved.

**Project Goals and Objectives:** The goal of this project is to have students learn and understand that to create something, it takes persistence and sometimes failure before success. We are focusing on the automobile because it is familiar to them, and the changes will be evident and dramatic for our students. The students will learn about creativity and efficiency. They will learn about inventors and how they invented things that nobody had thought of before, or made improvement to things so they were better and more affordable. The objective is to have the students realize that if we set our mind to something, and persevere, you can change the world!

**Evaluation Plan:** There will be a multiple choice pretest before and a posttest after the unit. The students will also be asked to put pictures of cars in order from oldest to newest before the unit, and after the unit. The expectation of success will be that 80% of the students will score a 85% or higher on the post unit activities and assessments.

Budget						
Category of Expenditure	Dollar Amount	Related Activity				
Computer Hardware						
Computer Software						
Other Equipment (not computers)	\$380.00	Assembly line/ car design				
Competition Registration Fees						
Program supplies						
	1					
TOTALS	\$380.00					

Program	n Approved By: Principal
Funds P	Payable to: 1/inneola Charter School
	Address: 320 East Pearl St.
	Minneola FL 34715 Phone: 352-394-2600 Email: Krawchukk@lake.K12.fl.45
Requestin	ng party has read and agrees with the funding policies of the Educational Foundation.
Signed_	Karen Krawchuk Date 9-13-18  To be completed by foundation staff/board
Program	m meets Duke Energy Foundation's Mission/ Funding PolicyYN
Directo	r Recommendation:
Executi	ive Board Recommendation:

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Item		Price	Qty	Total
0000000	Design & Play STEAM Cars Kit Item # TT571	\$24.99	4	\$99.96
	Car Designer STEM Learning Lab Item # PP921	\$69.99	4	\$279.96
		Order Summary		
		Subtot	al	\$379.92