

PLAN NAME

Spheros for STEM

ID

4343037

LOGO**CREATED DATE**

9/16/18 3:46:53 PM MST

LAST UPDATED

9/16/18 5:27:44 PM MST

SUBMISSION FORM**PERSONAL INFORMATION****FIRST NAME**

Kirk

LAST NAME

Wahlborg

JOB TITLE

Tech Design and Engineering Teacher

PHONE NUMBER

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EMAIL ADDRESS

kwahlborg@cherrycreekschools.org

SCHOOL

Falcon Creek Middle School

GRANT TITLE

Spheros for STEM

NUMBER OF STUDENTS IMPACTED

340

GRANT APPLICATION QUESTIONS

* Provide a two-sentence description of your Grant that can be used for publication.

With the creation of Sphero robots, they now have created a robot called Sphero SPRK+ that goes beyond coding. New innovative lessons/ activities will keep students engaged in their learning for

* Purpose (Explain what you hope to achieve. What will be different or better if successful. Why it is needed, and how it is INNOVATIVE.)

The purpose of integrating the use of the Spheros into the Tech Design and Engineering class at FCMS is two fold:

1. Allow student to apply the principles of velocity, acceleration, and force to a hands on learning experience
2. Encourage the 7 C's of Collaboration that are essential to innovative problem solving through group challenges.

What is innovative about the Spheros in this class is the unique opportunity to interact with STEM concepts for an entire semester giving students the time to internalize and apply knowledge and skills in collaboratively with all levels of learners from students identified as gifted to students in our ILC program.

* Measurable Objectives:

-Students will improve in problem solving, team building, communication (measured by rubric and student reflection)

-Students will improve in block coding to program the Spheros through different challenges (measured by % success in challenges)

* How will your grant achieve a District/School goal?

This grant will help achieve our district and school goal of continuing to increase innovative learning; including improving students' ability to work together to solve a problem, be creative, and apply scientific and mathematical principles in a fun, hands on environment.

* Implementation of Strategy: (Instructional procedures)

Students will be given the 5 step Engineering Design Process

1. Define the problem
2. Plan a solution
3. Make a model
4. Test the model
5. Reflect and redesign the process

* Timeline: (Will additional resources be needed in the future? Outline when your grant will begin and end)

The Spheros purchased with this grant will span over the course of years (as long as the technology continues to be relevant!) There may be replacement needs if any break or need parts in the future.

* Evaluation Procedures: (Explain how you will measure the success of your program)

I will measure the success of this program by the following factors:

- Student improvement in problem solving, team building, communication (measured by rubric and student reflection)
- Student improvement in block coding to control the Spheros through different challenges (measured by % success in challenges)

* School/Community partners involved in grant (financial or volunteer).

School partnership includes both the math and science department who are using the Spheros to apply specific math and science curricular goals. My program will involve a wider, real world, and hands on application.

BUDGET QUESTIONS

Budget

Equipment/Supplies: What is it, number, title, type purchased"?

COST \$

799.99

DETAILS

6x Sphero SPRK+
6x charging bases
6x maze tape
6x quick start guide
6 x urbo covers

Other: (i.e. Guest speakers, scholarships, travel, postage, etc.)

COST \$

39.88

DETAILS

Total Requested \$: \$ 839.87

HAS YOUR PRINCIPAL OR PROGRAM DIRECTOR APPROVED THIS GRANT REQUEST?

Yes

NAME OF APPLICANT'S PRINCIPAL OR PROGRAM DIRECTOR

Alan Lavizzo

EMAIL ADDRESS OF APPLICANT'S PRINCIPAL OR PROGRAM DIRECTOR

alavizzo@cherycreekschools.org

I have read and agree to the Terms and Conditions of Educator Initiative Grants as listed on the 2018-2019 Guidelines

NAME:

Kirk Wahlborg

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ADDRESS

ADDRESS LINE 1

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CITY

STATE/REGION

ZIP/POSTAL
CODE

EDITORS

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ATTACHMENTS

NAME

DESCRIPTION

CREATED DATE

No Data



NOTES

FIRST NAME

LAST NAME

NOTES

No Data

QUESTIONS/COMMENTS TO SUBMISSION

QUESTION/COMMENT

RESPONSE

MODIFIED DATE

No Data



EVALUATIONS
MIDDLE SCHOOL

REVIEWER

CCSF EDUCATOR INITIATIVE EVALUATION FORM 2018-2019

Javier Trujillo

Score: 18



