



## **Innovation Grant Application**

Library: NB Cook Elementary School of the Arts

Project Manager: Becky Mills

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Name of Project: Sphero Sphero On The Wall We're Going to Have a STEAM Ball

Grant Amount requested \$2149.75

### **Scope of the Project:**

Students in Grades 2-5 will be able to see how the Sphero application makes the abstract process of programming and engaging in "computational thinking" very concrete. It will provide visible as well as fun ways for students to see the practical application of STEAM. This project and the student activities using the Sphero application will help increase student engagement and interest in STEAM.

It will appeal to girls as well as boys, which is very important. Students will develop both critical thinking, problem solving skills and perseverance. Through this grant, students will develop more positive perceptions of STEAM and help prepare them for their future!

### **What need in the library/community will this project address?**

As a school media specialist, part of my job is to help get my students excited about the practical applications of science, technology, engineering, arts, and mathematics to their daily lives. I have limited resources to purchase materials to support STEAM instruction. If awarded this grant, I will teach students how to program or "code". Coding powers our digital world and through learning how to code it will equip them to be tomorrow's leaders. I will use the sphero ball, which is an app-enabled robotic ball and the ipad minis to run the sphero application. Students will then learn how to navigate the sphero ball through mazes they create with wooden Keva planks.

The sphero applications will allow students to create simple programs for the sphero ball so it can act like a robotically controlled "rover". The sphero ball will get students pumped up to learn more about STEAM. This will coincide with Escambia County's Vision 2020 program, which focuses on the most important element in today's classroom, which is student-centered learning through exploration, creativity, innovation and problem solving.

Not every child who learns to write will become a novelist, or everyone who learns algebra a mathematician, yet both are foundational skills that all children should learn.

Coding is the same. We must prepare our students to keep up with the ever-changing 21<sup>st</sup> Century if we want them to be employable and prepared for the future.

**Resources required:**

- 5 Sphero Spark Ultimate Packs (\$649.95)
- 5 ipad mini's (\$1,245)
- 5 ipad mini cases (\$75)
- 2 Keva 200 pack Plank Set (\$179.80)

**Activities/Timeline (include estimated completion date):**

January-February: As soon as all items are ready for use, I will teach grades 2-5 during their scheduled library time how to use the Sphero application on the ipad mini and how to maneuver the Sphero ball using the application on the ipad minis.

March-April: When all classes have been taught how to use the sphero ball and application we will work in groups to create and design different mazes for the sphero ball to navigate through during their scheduled library time.

**How will the library sustain this project?**

The media specialist and media clerk will supervise the students while working with the sphero application on the ipad mini and the Sphero ball. I will continue to use the Sphero application and the Sphero ball from year to year. As students gain knowledge of how to run the Sphero application they will peer tutor others younger than them and start teaching them how to code.

Library Director's signature: Becky W Date: 10-27-16

Tracy Bear Date: 10/27/16  
Signature of agent, office, or board to whom the Director reports

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For PLAN use only:

Approved \_\_\_\_\_ Not Approved \_\_\_\_\_

PLAN Executive Director \_\_\_\_\_