

#6

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Wednesday, October 17, 2018 11:33:04 AM
Last Modified: Wednesday, October 17, 2018 11:40:16 AM
Time Spent: 00:07:12
IP Address: 150.208.129.198

Page 1

Q1 LEA School/District Name

Greenland School District

Q2 LEA Contact Name

Tiffany Abner

Q3 LEA Contact Title

Computer Science Teacher

Q4 LEA Contact Email

tabner@greenlandsd.com

Q5 LEA Contact Title

Computer Science Teacher

Q6 LEA Contact Phone Number

870-302-9695 or 479-521-2366 X 156

Q7 Grant Level Proposal

**Large - \$20,000 to
\$25,000**

Q8 PROPOSAL DESCRIPTION (MAX 3000 Characters) - provide a narrative regarding the need for the proposed program/project, specific goals to be achieved, and how if funded the program is likely to achieve those goals.

Greenland School District is a Title I school. Currently our computer science program consists of 2 High School classes, Programming I/II and AP Computer Science Principles. In the middle school, the minimum of 6 week coding block in Career Development is all the computer science education that is available. A handful of elementary and middle school teachers have been to some summer training with computer science and are trying to implement it in the everyday classroom. In a school of roughly 770 students, two computer science classes at the high school level isn't enough to reach all students because of scheduling conflicts. Computer science is viewed as "too hard" for a lot of students in our district. I would like to change both of these problems. Summer Computer Science Camp in Late May and June→ 2-4 weeks of ½ day AM camp where teachers, high school and good middle school coding students lead coding projects and lessons to K-7th grade students. In a completely different week, a high school and adult class could possibly be led by Computer Science Education majors from the University of Arkansas or other teachers in the district. The camp(s) will have at most 50-70 students a day depending on the number of workers and volunteers. If interest is high, multiple camps could be created. Each group's camp will be 2-4 days depending on the age. Kindergarten through 2nd grade students will attend a 2-3 day camp(8-12 hours) 3rd - 7th grade 3-4 day camp (12-16 hours). The students will be broken up into age groups of about 10-12 kids in each group and will travel around to the different centers learning coding concepts with different materials purchased with the grant money. Each "camper" will get a camper t-shirt with a CS Camp logo. Possible camp logo: "Computer Science is my Superpower!" 3rd-7th grade campers will compete in coding competitions on the 3rd or 4th day of their camp and the winners will receive awards and prizes. The coding competitions will be set up similar to High School State and National Coding competitions to help students prepare and build excitement for future coding competitions Goals: Increase interest and confidence in computer science from Kindergarten to High School and adults in the community Increase problem solving skills at every age level by having hands-on activities that require creativity and logical thinking to complete Increase students taking computer science high school classes Add a Robotics class at the High School level by increasing the interest in Robotics Add an Advanced Placement Computer Science A class at the High School level by increasing the confidence of our students' abilities in computer science Increase interest in Computer Science competitions at the local, state, and national levels Increase teacher confidence in incorporating computer science lessons in their classes

Q9 PROPOSAL TIMELINE (MAX 1500 Characters) - list major activities of your proposal with approximate target dates

Students and area community members will receive notice of the Computer Science camp by the beginning of April 2019. It will be posted on the school's facebook, twitter page, enotes notification system and website. Flyers will be sent home with every student from kindergarten through High School explaining the camp goals, fees and logistics. The camp will start one week after last day of school and will continue for an indeterminate amount of weeks depending on the number of people who register. Campers will be notified before school ends in May as to which camp session they have been assigned.

Q10 PROPOSAL EXPECTED RESULTS (MAX 1500 Characters) - Describe the student outcomes, or changes, that will result if this proposal is funded.

Expected Outcomes: Increase the number of students taking computer science classes at the high school level. Increase the interest of parents, grandparents, and adults in the Greenland area in computer science Increase the number of High School and Middle School classes in computer science area offered at Greenland High School: Robotics; Advanced Placement Computer Science A; Intro to Computer Science (possible middle school elective) Increase the number of High School Graduates as a computer science completer by having enough classes available at HS for students to take each year of High School. Increase the number High School Graduates who major in Computer Science Increase Greenland's presence in local and state coding competitions. Currently there are 3 students at Greenland High School who want to take more computer science electives and aren't able to because they have already taken the two classes that we offer. They want to take more classes because they have already decided Computer Science is their chosen career path. I want to increase that number so that we can increase the number of Computer Science classes we offer.

Q11 PROPOSAL EXPECTED IMPACT (MAX 1500 Characters) - Describe the estimated number of students, teachers, and/or community members that will be impacted and how they will be impacted if this proposal is funded.

Goals: Reach and impact a minimum of 70% of our elementary and middle school student population which would be roughly 300 students To include an teen/adult class for area parents, grandparents, and others who are interested in learning more about computer science after school or during summer We are reaching out to area businesses and the Northwest Arkansas Education CoOp to help support the camp. Greenland students and teachers will be impacted if this proposal is funded because it will increase interest in computer science in both students and teachers. Teachers will have the opportunity to use the materials purchased with the grant all school school year. Greenland is a tightly knitted community. When something is “going on at the school” many community members are curious. This camp will stir up interest and school pride in Greenland. Teachers will become more confident adding computer science into their lessons at a early level.

Q12 INNOVATIVE ASPECT (MAX 1500 Characters) - Describe why this proposal is creative and should receive funding as an out of the box way to support student growth/achievement.

This project should be funded because many of our students think that computer science is too hard. Greenland High School students have said they are “scared” to compete in the local and state computer science competitions because they don’t feel confident in their abilities. This camp will show our students that computer science is fun and exciting. It will also increase the confidence of many high school students in their ability to learn and teach computer science. Students in both categories will learn to push past their mental barriers and persevere. This project will also teach students about the competition part of computer science. There is no other elementary or middle school competition for computer science in the state. All competitions are at the High School level. Perhaps this camp will spark other schools to start computer science competitions at the elementary and middle school levels.

Q13 TRANSFORMATIVE POTENTIAL (MAX 1500 Characters) - Describe how this proposal if funded and implemented beyond your program has the ability to raise student achievement across the state.

I can see this camp idea being copied and used by many schools in the state. We will just work out all the “kinks” and logistics for other small districts to implement. When our camp is successful, I can see more elementary and middle school computer science competitions across the state. If our students start competing early, we will be able to increase computer science skills and confidence in the state.

Q14 FOLLOW UP and/or MARKETING/OUTREACH (MAX 1500 Characters) - Describe how your organization will follow up on this program after completed and/or how it will be marketed to and awareness raised within the community if the proposal is funded.

I would like to have a Computer Science camp every year to increase skills and interest at Greenland School District. I would also like to team up with area schools in my CoOp to create elementary and middle school computer science competitions an annual event. The materials purchased with the grant money can be used every year in different ways and increasing difficulty levels. I will also contact area newspapers and tv stations to run a story about how we are working to increase our Computer science skills.

Q15 Budget Proposal

CS Innovation Grant Spreadsheet - Sheet1.pdf (54.7KB)

Item	Description	Price each	qty	Total	Grade levels	Needs to use	Programming Languages
Hummingbird robotics kit	classroom kit	\$2,499.00	1	\$2,499.00	5-12	chromebook/windows/raspberri pi	scratch Python
Raspberri pi computers		\$35.00	30	\$1,050.00	5-12	none	Scratch Python Java
Raspberri pi screens		\$80.00	30	\$2,400.00	5-12	none	
Microbits		\$15.00	60	\$900.00	3-12	Chromebooks	Java and Block based
Microbit accessories		\$26.00	60	\$1,560.00		batteries	
Osmo Coding	5 sets of Coding Awbie, Coding Jam, and Coding Duo; includes 5 new Osmo iPad Bases, Masterpiece and Newton	\$760.00	2	\$1,520.00	k-4	10 ipad	block based
Wonder Workshop Dash/dot	tech center pack 12 dash and 12 dot	\$3,595.00	1	\$3,595.00	all	24 ipad	block based Javascript
Code and go robot mouse activity		\$60.00	4	\$240.00	k-2	batteries	block based
Coding Caterpillar		\$45.00	4	\$180.00	k-2	batteries	block based
Arduino	CTC 101 Program	\$2,100.00	1	\$2,100.00	5-12		script arduino
Parrot Mambo code drones		\$150.00	5	\$750.00	5-12	5 ipad	Tynkr block based
Botley classroom set	classroom set	\$300.00	2	\$600.00	k-2	AAA batteries	block based
Unplugged materials		\$500.00	1	\$500.00			
Tshirts for campers/volunteers		\$7.50	325	\$2,437.50	all		
Prizes for competition winners		\$1,400.00	1	\$1,400.00			
Incentives for HS workers	3% of total budget	\$750.00	1	\$750.00			
batteries		\$100.00	2	\$200.00	AAA, AA		

TOTAL **\$22,681.50**

taxes \$2,268.15
\$24,949.65