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Q1 LEA School/District Name

Harrisburg Elementary School

Q2 LEA Contact Name

Kristy Whittingham

Q3 LEA Contact Title

Instructional Technologist

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Q5 LEA Contact Title

Instructional Technologist

Q6 LEA Contact Phone Number

870-578-2413

Q7 Grant Level Proposal

**Medium - \$7,500 to
\$20,000**

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.

Most Harrisburg Elementary students come from a poverty stricken environment which allow us to provide free lunch and breakfast for all. We also provide a backpack program to the severely deprived that is funded by our community and teachers. Our school is a Title I school and does not have money to provide the students with the needed technology to be successful in state assessments, classroom activities, and life skills. The students strive to do their best everyday. By incorporating Computer Science Tools, we can meet the increasing demand for our school to help our students become technology-enriched individuals. We have three teachers who are K-8 Lead Teachers in Computer Science as resources for our teachers. The Lead Teachers will be providing monthly trainings on how to use the Computer Science tools in the classrooms. Digital learning is the present and the future and we want to give our students every benefit possible to succeed in this digital world. By providing them with access to Computer Science tools, students will be able to learn skills that could help impact their future job opportunities. We want learning stations of Computer Science tools in every one of our K-4 classrooms, resource classrooms, the media center, and activity classes available for daily use. The first goal in implementing CS in the classroom is for students to be actively problem solving while teachers become the facilitator. With paper and pencil we find many times students shut down and say they cannot do classroom material. Incorporating Computer Science skills across the curriculum would allow for critical thinking, problem solving, and ownership of their work. This will transfer and grow with the student to be used in everyday situations. We envision our students using the Computer Science tools regularly in class as hands on applications of materials they are learning while at school in technology education as well as literacy, mathematics, and science. When students see learning in the concrete, they tend to make more connections with the concepts. Our next goal is to give these students the tools and motivation to break the poverty cycle. Since the majority of our students live below the poverty level, they have become part of the cycle of poverty. Allowing students to see the possibilities of opportunities they have available to them and give them the opportunities for success is a powerful tool that we want our students to have. Help us break the cycle! Our final goal would be to increase student attendance. When schools have a positive culture of learning, with new innovative learning stations, students become more invested in their learning and excited about attending school. Through our own research we have found students will not miss on the day of their favorite activity, i.e. PE. With the implementation of CS stations in the class, students will have opportunity to be involved in CS everyday, which in turn will help boost of attendance.

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

We have one major activity to implement which is our Tynker Time stations. This allows students to easily associate what they are doing with Computer Science. Teachers will have Tynker Time stations set up in each of their classrooms including resource rooms, media center, and activity classes; 28 classrooms in total. The implementation would be in three steps. The first step would be implemented in January 2019 with the purchase of 28 OSMO Coding Learning Kits and accessories as well as the 25 Amazon Kindle Fires. OSMO has a variety of skills as add-ons to incorporate science, math, art, reading, spelling, and language curriculum. The next Computer Science tool implemented would be February 2019 to purchase 5 Code and Go Mouse Classroom Sets. This incorporates problem solving, math and science skills using coding terminology. The last stage of implementation would be March 2019 the purchase of 1 cart and 25 Chromebooks which would be used in the grade levels to implement coding tools such as code.org, madewithcode.com, micro bits (which we can check out from our local co-op), Scratch, and Tynker.

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

Since our school scored a D on the State Report Card we are trying to find new ways of increasing student attendance and achievement in math and reading. CS allows our students remediation in cross curriculum skills they may have missed in the standard classroom. School attendance matters especially in a high poverty school district like ours. Our students have a high rate of absenteeism at 36%. School success is measured by the time they spend activity engaging learning. When they are absent from school they cannot be active learners. By providing motivation and supplemental resources to teach academic skills we hope to increase this statistic. Students who attend school regularly improve their chances of being academically successful and this begins at the elementary level. It is vitally important that the students receive the foundations of learning in the early years or they will struggle the rest of their schooling. Teaching CS in our elementary classroom is about giving the students those thinking skills that will help them become active learners throughout their education. We believe the most important part of the K-4 CS experience is to encourage and support creative expression, reinforce curriculum, and develop problem solving skills. Through this grant we will be able to provide our students with valuable and powerful tools that will help reinforce skills that are most appropriate at each grade level.

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.

Our school is in the center of a rural farming community of around 2,400 occupants. The elementary school is composed of grades K-4 with around 30 teachers, approximately 400 students total. Our parents and children are from a cycle of poverty or/and drug abuse that in turn have many grandparents or great grandparents raising them. They are not only unfamiliar with the newer ways of learning, but have limited knowledge with new technology. This makes many of our guardians hesitant to be involved in their child's learning. As classroom teachers we need to provide the students with confidence and interest in computer-based learning and provide resources for the guardians. Allowing students and guardians to see the opportunities available through CS will lead to more parental involvement in the child's education and for guardians to expand their own knowledge. We will invite our community stakeholders to share the importance of technology in their industry with our students. Fostering student learning for tomorrow's jobs. The impact on the community will be the investment in our youth.

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.

Students come to school everyday expecting paper and pencil work. CS nurtures creativity, fosters problem solving, and critical thinking for the students. Many of our students don't have access to technology at home and this makes them feel special, responsible, and interested. We have around 5 Kindles per classroom and students become excited when they are able to use these tools. We want to help the teachers utilize the tools they have along with tools from this grant to further their students education. We would love to be able to walk into any classroom and see students actively engaged in their learning. In our experience this happens when CS tools are incorporated. Many students in our district have little remediation help when they arrive home from school. The computer science tools could help alleviate this need then our academic achievement will rise. Students can receive the remediation they need without the stigma attached to it. They will not just receive remediation, but also will create algorithms. They will learn to debug, loop, and use conditionals. Students will increase vocabulary and brain power while to them they will just be playing. We feel that this is out of the box because we don't want the items for one grade level or one certain group, we want this for ALL of our students. We also believe with THREE lead teachers in this building we can work to help our students learn how to code, problem solve, and to think critically.

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.

Creating a positive learning environment that empowers students in CS is critical to preparing the younger generation for the future. Currently we do not have teachers utilizing CS in their classroom because they simply don't know what it is or they don't have the resources to do it. By introducing Tynker Time with CS tools allows the teacher to learn with the students and provides remediation for skills already covered in the classroom. With tools like OSMO, we are hitting on all the core subjects and fine arts. We also hope to spread the knowledge learned from our three Lead Teachers so that many more can become a resource for others in their districts. All research has pointed to the necessity for CS to be introduced at an early age and this has never been more important. If our project is funded, any project similar to ours would have the ability to raise student achievement across the state because children are the same in many aspects. First, children in general want to learn, but if children are learning as they play it makes it even more conducive to the learning process. Play is the number one way smaller children learn. Why not keep that going as students grow older? Secondly, taking the stress out of learning and letting students have fun is when their motivation will rise and when they will want to learn. When the desire, the facilitator, and the means all come together then the achievement will follow. It is the perfect recipe.

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.

This program will be ongoing for many years to come. Our school librarian has added many Computer Science books in circulation for the students to continue their learning. This allows them to explore beyond the teachers classroom and invest in their future learning. We hope to continue to grow this program with the latest Computer Science tools available. Our organization will follow up this program by hosting a Family Tech Night event which will bring students and families together to learn exciting new Computer Science tools called OSMO, Code with a Robotic Mouse or explore two different coding websites (code.org & Scratch). No prior computer or technology experience is needed. Advertisement in local papers, social media, school marquee, and flyers sent home and placed at local businesses will make sure all families and students are welcomed to the event. The lead teachers will coordinate the student and family technology experience, and volunteers will work together to make arrangements for food and prizes. Lead teachers will make presentations over Computer Science tools and why we should be incorporating them into our students' curriculum at local clubs, such as Mother's Club, Rotary, and Lion's Club. After receiving material from the grant teachers and students will demonstrate what they learned and offer to teach our local school board members and clubs how to use them.

Q15 Budget Proposal

Computer Science Grant Cost Sheet - Sheet1.pdf(30.5KB)

Computere Science Grant		Kristy Whittingham Harrisburg Elementary		
Quantity	Date	Description	Amount	Current Balance
	12/10/2018	Beginning Balance	\$20,000.00	\$20,000.00
				\$20,000.00
5	1/4/2019	Code and Go Mouse	-1,075.00	\$18,925.00
28	2/5/18	Osmo Genius Kit for Kindles	-2,800.00	\$16,125.00
25		All-New Fire HD 8 Kids Edition Tablet, 8" HD Display, 32 GB, Blue Kid-Proof Case	-3,250	\$12,875.00
28		Osmo Creativity Kit for Kindles	-1,960	\$10,915.00
5		Osmo Hot Wheels Mindraces Game	-\$300.00	\$10,615.00
5		Osmo Pizza Co. Game	-\$200.00	\$10,415.00
5		Osmo Coding Awbie Game	-\$250.00	\$10,165.00
5		Osmo Coding Jam Game	-\$300.00	\$9,865.00
5		Osmo Super Studio Mickey & Friends	-\$100.00	\$9,765.00
5		Osmo Super Studio Disney Princess	-\$100.00	\$9,665.00
5		Osmo Super Studio Pixar The Incredibles 2	-\$100.00	\$9,565.00
25	3/1/18	Acer Chromebooks and Cart	-\$9,436.40	\$128.60