

# #15

**COMPLETE**

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**Q1 LEA School/District Name**

Springdale School District

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**Q2 LEA Contact Name**

Josefina Perez/Kathleen Johnson

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**Q3 LEA Contact Title**

Computer Science Instructors

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**Q4 LEA Contact Email**

jperez2@sdale.org/kjohnson@sdale.org

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**Q5 LEA Contact Title**

Computer Science Instructors

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**Q6 LEA Contact Phone Number**

479-750-8832 extensions 2017/2015

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**Q7 Grant Level Proposal**

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

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**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.

Our proposed project is a system of events (programs, field trips, and communications) with students interested in CS beginning in the 5th grade. We will start with two programs and build on it each year. Our expectation is that participants, teachers, principals and CTE Coordinator will become part of our SHS CS project. Students will be invited to our CS Summer Camp. At this point, we will enter them into our SHS CS group. This will allow us to mentor and stay in contact with them. We hope to visit their school at least twice yearly. 8th and 9th graders will be invited to our Fall CS Day. We hope that with these two events going on each year, we will be able to keep our existing group and expand it yearly. Our expectation is that over the following three- four years, we will have a solid group of students taking CS. Students will continue to participate in the initiative as they progress to high school, but now as leaders. We will invite middle and junior high math, science and CS teachers. Through these invitations, we hope to increase CS teacher interest within our district. Through these programs, we hope to show underserved populations, such as Hispanics, Marshallese, and girls that they all can code and be successful in CS careers. JB Hunt, Tyson and Walmart will provide local industry support. They will be an integral part of each of these programs and will be:

- Showcasing some of their cutting-edge innovations
- Connecting students with possible career paths
- Job Shadowing/Mentoring—Tyson and Walmart
- CyberPatriot training/mentoring
- Mentoring Girls Who Code

Project 1 is a weeklong camp led and taught by high school CS students. Participants will learn by:

- Building a Webpage with HTML and CSS
- Program the Finch robot with java
- Create an App using App Inventor
- Program a Microbit with JavaScript
- Create 3D animation in Alice 3
- Create awareness on a social issue in our community using any of the above software.

Project 2 is one-day camp also led and taught by high school CS students. Participants will learn to program Hummingbirds and Finch robot in java. Each junior high will be able to take one Hummingbirds to use in their CS Programming 1 and 2. The second workshop will be to program the Finch robot. We hope to reach the following goals:

- At the end of this program, we will have increased awareness of CS, the number of participants, parents, volunteers, teachers, local industry and community leaders.
- Provide high school students with the opportunity to lead and teach computer science to the younger generation. Gain and expand their confidence, communication, organization, and problem-solving and leadership skills.
- Use their knowledge to solve community social issues.
- A culminating ceremony/parent showcase will highlight the students' projects and a group photo with presentation of a certificate to each participant.

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

If grant is awarded, we will start the planning process of these two programs as early as January 2019. The following are the targeted dates: Bulldog IT Up Summer Camp June 10, 2018-June 14, 2019 or June 17, 2018-June 21, 2019 Junior High Fall STEM Day Thursday, October 24, 2019 or Thursday, November 7, 2019

Timeline

- January Contact all middle schools and set the dates. Contact local industries and confirm participation
- February Select student leaders
- March Create flyers, posters and applications
- April Design camp activities Design shirt Deliver/send flyers, posters and applications
- May Collect and process all applicant applications Order t-shirts, certificates Plan for snack and meals
- June Purchase and finalize camp logistics Send reminders to all involved Implement Camp
- August Add new leaders, create posters, plan activity Contact/remind media, local industries
- September Finalize list of attendees, contact all involved
- October/November Confirm attendance for all involved Implement Computer Science DAY

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

We would like these two programs to be annual events for SHS for the next 3-4 years. We will assess, survey, and decide the true impact of these programs and their potential to change the CS initiative. Immediate student outcomes: · Increased number of starter program participants at our junior highs and middle schools · Better understanding of CS opportunities · Increased number of students in IT Academy majoring in CS and/or Cyber Security · Students seizing these opportunities and starting to really see a purpose in their education · Internships with one of our Future 500 companies · Increase in students social awareness through technology in our community Ultimate student outcomes: · Students with a variety of CS-high skilled, high-wage career choices in successful and high-paying jobs · Paths to a better future and a way out of poverty · Possibility of our students to be the first graduate in their family · Networking with CS professionals Local community outcomes: · Fulfill the ever-increasing CS demands in NWA · Increase Associate and Bachelor degrees in CS · Qualified local applicants · Economic growth · Productive citizens · Entry-level, trained CS population · Students from our underserved populations ( Hispanics, Marshallese, and girls) to choose CS As the figures and statistics have continued to report, CS and its many varied careers are a high paying and in-demand career for the near future. We hope to be able to funnel our SHS CS to fill that void.

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**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.**

The immediate estimated number of students, teachers, and/or community members that will be impacted by this proposal will be about 180 middle and junior high students, 60 high school students and 10-12 teachers the first year. We hope to increase the number of students and teachers these projects will influence each year. Since local industries, media and the community will be involved, this initiative will for sure increase awareness in NWA and the state. After four years, we hope to have touched at least 1,000 students, which does not include the benefits of our far-reaching media campaign.

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**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 proposal is creative and should receive funding because we are targeting students starting in the fifth through ninth grade and will stay in contact with them through our Springdale High Computer Science Group. This will allow us to send them messages, contact them and their parents, mentor them until they reach high school. Studies have shown that computer science will promote students' growth in developing and solving problem skills through critical thinking. These are important skills that all of our students should possess in order to be competitive in our technology society. This opportunity will connect these students with other opportunities in Computer Science as they become available throughout the year. Opportunities such as becoming leaders at their school in the "Hour of Code" or start a "Girls Who Code" club. We do not want the excitement about computer science to fade; instead, we want to add more and more interest each year. We will analyze the impact each year by how many of these students enroll in computer science classes, robotics, EAST and cyber security programs. We will also measure the increased and retention of our students in our SHS Group. Based on our analysis, we will add more programs, which we hope, will funnel more students into Computer Science each year.

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**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.

We know that this seems to be an NWA/Springdale initiative, but if we succeed, we hope to be able to use our model to promote Computer Science across the state. We think that our vision of tracking students interested in Computer Science at an early age and then continually supporting, communicating, and involving them should increase our numbers. We believe this program could be replicated at any school. The benefits from this project are that students will receive the following that they may or may not be getting presently: · Individual mentoring · Invitations and scholarships to our yearly events · Sense of belonging · Career focus · Personalized help with choosing classes · Incentive to achieve and do well in school · Parents who are involved and proud of this participation · Events each year that are fun and exciting · A place to be · Bragging rights for students because they are a part of something big We hope that the above benefits to students will raise student achievement and at the same time increase the number of students in the Computer Science field. We hope this CS Initiative will also increase the number of companies and families to choose Arkansas as their home.

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**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.

We will reach out to the community by inviting local district news media, post on Facebook and tweeter. We will include and invite a speaker to talk to about local social issues in our community. Immediately after the completion of each program, we will get participants, parents, teachers, principals, community and industry leader's feedback through a google form. We will use the survey result to improve/make adjustments to our programs. We will ask all program participants including teachers, principals, parents, and community and industry leaders to join our Springdale High CS group. We will use this as a communication tool to continue to create and increase awareness in CS. We will post news about CS opportunities such as: · Job demand · Salary · National and state initiatives (AR Future Grant, AP CSA incentive) · Hour of Code · Girls Who Code · Scholarships We will also survey graduates in May about future plans. In this survey, we will ask for the following information: · Email address, phone number · LinkedIn connection · College · Major · Work We will work on creating a social media account such as Facebook or Instagram to continue to evaluate the impact of this project. Through this social media, we hope to bring together SHS CS graduates, current parents, Springdale teachers, and industry and community leaders.

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**Q15 Budget Proposal**

**SHS CS Program Budget - Sheet1.pdf(68.2KB)**

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<b>School: Springdale High School</b>			
<b>Year 1--Kick Off</b>			
<b>Summer Camp</b>			
Food and drinks	\$1,000		
T-shirts	\$1,000		
Certificates	\$100		
Stipend for Student Leaders/Teachers (6)*	\$600		
Microbits (30)	\$540		
<b>Fall CS Day</b>			
Snack and Drinks	\$300		
T-shirts	\$1,600		
Certificates	\$100		
Transportation	\$250		
Sunglasses-Swag (120)	\$75		
<b>Other Costs</b>			
Finch Robot (10)	\$1,000		
HummingBird Robot Duo Premium Kit (16)	\$3,894		
Materials and supplies	\$200		
Recruitment costs (posters, invitations, etc)	\$200		
	<b>\$10,859</b>		
<b>Year 2</b>			
Summer Camp Food and drinks	\$1,000		
Summer Camp T-shirts	\$1,000		
Summer Camp Certificates	\$100		
Microbits (15)	\$270		
Stipend for Student Leaders/Teachers (6)*	\$600		
Fall CS Day Snack and Drinks	\$300		
Fall CS Day T-shirts	\$1,600		
Fall CS Day Certificates	\$100		
Fall CS Day Transportation	\$250		
Finch Robot (2)	\$200		
HummingBird Robot Duo Premium Kit (2)	\$486		
Materials and supplies	\$200		
Recruitment costs (posters, invitations, etc)	\$200		
	<b>\$6,306</b>		
<b>Year 3</b>			
Summer Camp Food and drinks	\$1,000		
Summer Camp T-shirts	\$1,000		
Summer Camp Certificates	\$100		

Stipend for Student Leaders/Teachers (6)*	\$600		
Microbits (15)	\$270		
Fall CS Day Snack and Drinks	\$300		
Fall CS Day T-shirts	\$1,600		
Fall CS Day Certificates	\$100		
Fall CS Day Transportation	\$250		
Finch Robot (2)	\$200		
HummingBird Robot Duo Premium Kit (2)	\$486		
Materials and supplies	\$200		
Recruitment costs (posters, invitations, etc)	\$200		
	<b>\$6,306</b>		
		<b>Subtotal</b>	<b>\$23,471</b>
<b>Year 4</b>			
Summer Camp Food and drinks	\$1,000		
Summer Camp T-shirts	\$1,000		
Summer Camp Certificates	\$100		
Stipend for Student Leaders/Teachers (6)*	\$600		
Microbits (15)	\$270		
Fall CS Day Snack and Drinks	\$300		
Fall CS Day T-shirts	\$1,600		
Fall CS Day Certificates	\$100		
Fall CS Day Transportation	\$250		
Finch Robot (2)	\$200		
HummingBird Robot Duo Premium Kit (2)	\$486		
Materials and supplies	\$200		
Recruitment costs (posters, invitations, etc)	\$200		
	<b>\$6,306</b>		
Total	<b>\$29,777</b>		
<b>We envision a 4-year program so that our middle school 5th and 6th graders would be in high school at the point.</b>			
<b>We understand that our monetary vision is "out of scope" with this grant, so as we would love the 4-year commitment we have included the subtotal of a 3-year commitment.</b>			

**\*The stipend for our student leaders/teachers will only be \$100 for each workshop they teach and plan. We believe this learning/realistic job experience will be beneficial for students, but could be totally a community service project.**