




Utah State Board of Education

Utah K-12 Computer Science Initiative

San Juan School District 4-year Full Grant Application



TEAM: Computer Science Leadership

LEA Name			
Title	Name	Email	Phone
LEA Computer Science Lead	Kit Mantz	amantz@sjsd.org	(435) 678-1318
Superintendent	Ron Nielson	rnielson@sjsd.org	(435) 678-1211
CTE Director	Kit Mantz	amantz@sjsd.org	(435) 678-1318
K-6 Curriculum Director	Julie Holt	jholt@sjsd.org	(435) 678-1213
7-12 Curriculum Director	Christy Fitzgerald	cfitzgerald@sjsd.org	(435) 678-1309
Technology Director	Aaron Brewer	abrewer@sjsd.org	(435) 678-1217
Elementary Principal	Jay Porter	jporter@sjsd.org	(435) 678-1870
Elementary Principal	Mike Tuckfield	mtuckfield@sjsd.org	(435) 678-1285
Secondary A/Principal	Devon Gosney	dgosney@sjsd.org	(435) 678-1254
Business Administrator	Kyle Hosler	khosler@sjsd.org	(435) 678-1234
IT/Educ. Technology Specialist	David Brown	dbrown@sjsd.org	(435) 678-1221
SESC Coordinator	Theresa Wilson	twilson@sjsd.org	(435) 650-2283
Computer Science High School Teacher Leader	Ramsey Seweingyawma	rseweingyawma@sjsd.org	(435) 678-1209

High School Teacher Leader/PD Coordinator	Jamie Carling	jcarling@sjsd.org	(435) 678-1301
Middle School Teacher Leader	David Hale	dhale@sjsd.org	(435) 678-1100
Middle School Teacher Leader	Tina Crofts	tcrofts@sjsd.org	(435) 678-1100
Elementary School Teacher Leader	Patricia Helquist	phelquist@sjsd.org	(435) 678-1871
School Board Member	Steve Black	sblack4@sjsd.org	(435) 485-0298



VISION: Abstract for K-12 Computer Science Plan


The San Juan School District understands that Computer Science (CS) is becoming a very important component of student learning and engagement and the District is looking forward to implementing its detailed CS strategy to integrate the K-12 Computer Science standards for all students in every grade and to offer important CS classes and CS pathways in grades 7-12. Our 4-year plan aligns with the six focus areas of the Utah Computer Science Master Plan and we are specifically addressing (1) teacher development, (2) curriculum & standards, (3) diversity, and (4) outreach & communications as our primary focus in the successful implementation of our plan. (1) Data and (2) reporting will help us in evaluating the effectiveness of our plan and be used to make adjustments as needed to improve our implementation progress. Coupling our Computer Science and CTE plans along with grants and designated district funds will help the District in meeting the Computer Science master plan requirements. We have formed a District Computer Science Leadership team and team members have attended the CSforALL SCRIPT workshop in January 2020. This SCRIPT workshop has provided the District team with the guiding support in developing our 4-Year Computer Science Strategic Plan.

The District’s plan focuses on (1) professional development for all teachers, (2) elementary implementation, (3) middle school implementation and (4) high school implementation.

1. Professional Development: This will be absolutely key in successfully meeting the objectives of our plan. And a primary focus will be working with our partners in providing important professional development for all teachers, but specifically our teachers in grades K-6. Implementation of the K-6 CS standards will be our biggest challenge.
2. Elementary Standards: Our plan will be focusing on (1) identifying, purchasing, and implementing an online CS Coding program, (2) incorporating mouse coding robots, Lego robots, Ozobots, and Spheros into the classrooms; (3) using text editors; and (4) developing an integrated development environment (IDE). Items 3 and 4 will allow students to share and collaborate on the development of programs in a safe and transparent manner. The District will provide professional opportunities and time for K-6 teachers to integrate the CS standards into their curriculum. We plan to offer after school activities with families that will support our computer science learning goals.
3. Middle School Level: Our plan will focus on programs that include (1) integrating the 7-8 CS standards into our CCA and related classes, (2) offer elective CS courses that include Creative Coding, Exploring CS 1, and future middle school courses; (3) offer after-school and extra-curricular activities that include a robotics coding club that is part of a high school pathway and CTSO organization; and (4) offer the “Code to Success” program for 8th grade students.

- High School Level: Our plan will focus on high school programs on (1) conducting and broadcasting CS courses to all five high schools; (2) offering Concurrent Enrollment CS courses; (3) providing online CS courses for students who desire a specific course not offered or cannot include a CS class into their schedule; (4) incorporate robotics competitions into our CTSO extra-curricular organizations; (5) offering “Code to Success” as an after school program opportunity in which students can earn a credential; and (6) explore opportunities to incorporate CS into Math and Science.

Additionally as a way to promote Computer Science within our District and with our university and community partners, our District Career Pathways Coordinator will plan and schedule with input from students, parents, schools, district personnel, university partners, employers and local business, and other community partners a district-wide Computer Science Education week and “Hour of Code” event annually in December. She will also coordinate Computer Science and robotics events during USU-Blanding’s annual STEAM Expo held during the second week of April each year.



CURRICULUM AND STANDARDS: Computer Science High-Quality Curriculum

By Fall 2023 LEA’s scope and sequence for computer science will include:

Grade Level	Course	Frequency	Proposed Curriculum	Implementation Target Date
<i>Example: Kindergarten</i>	<i>Kindergarten CS will be taught integrated with the Kindergarten Math curriculum.</i>	<i>2 lessons/week</i>	<i>Utah Core Guides (link) and Code.org Scratch</i>	<i>Spring 2021</i>
Kindergarten	CS Integration–Science CS Integration – Math CS Integration – ELA	2 Lessons/week 2 Lesson/week 2 Lessons/week	TBD due to Pandemic Delay: K-5 CS Standards , CS Fundamentals for Elem. Schools , &/or	Spring 2021 Spring 2022 Spring 2023 (Each year we will build on the previous year’s

			Google Code	work)
1st Grade	CS Integration – Science CS Integration – Math CS Integration – ELA	2 Lessons/week 2 Lessons/week 2 Lessons/week	TBD due to Pandemic Delay: K-5 CS Standards , CS Fundamentals for Elem. Schools , &/or Google Code	Spring 2021 Spring 2022 Spring 2023 (Each year we will build on the previous year’s work)
2nd Grade	CS Integration – Science CS Integration – Math CS Integration – ELA	2 Lessons/week 2 Lessons/week 2 Lessons/week	TBD due to Pandemic Delay: K-5 CS Standards , CS Fundamentals for Elem. Schools , &/or Google Code	Spring 2021 Spring 2022 Spring 2023 (Each year we will build on the previous year’s work)
3rd Grade	CS Integration – Science CS Integration – Math CS Integration – ELA	2 Lessons/week 2 Lessons/week 2 Lessons/week	TBD due to Pandemic Delay: K-5 CS Standards , CS Fundamentals for Elem. Schools , &/or Google Code	Spring 2021 Spring 2022 Spring 2023 (Each year we will build on the previous year’s work)
4th Grade	CS Integration – Science CS Integration – Math CS Integration – ELA	2 Lessons/week 2 Lessons/week 2 Lessons/week	TBD due to Pandemic Delay: K-5 CS Standards , CS Fundamentals for Elem. Schools , &/or Google Code	Spring 2021 Spring 2022 Spring 2023 (Each year we will build on the previous year’s work)
5th Grade	CS Integration – Science CS Integration – Math CS Integration – ELA	2 Lessons/week 2 Lessons/week 2 Lessons/week	TBD due to Pandemic Delay: K-5 CS Standards , CS Fundamentals for Elem. Schools , &/or Google Code	Spring 2021 Spring 2022 Spring 2023 (Each year we will build on the previous year’s work)

6th Grade	CS Integration – Science CS Integration – Math CS Integration – ELA	2 Lessons/week 2 Lessons/week 2 Lessons/week	TBD due to Pandemic Delay: K-6 CS Standards , CS Fundamentals for Elem. Schools , &/or Google Code	Spring 2021 Spring 2022 Spring 2023 (Each year we will build on the previous year's work)
7th Grade	Creative Coding Exploring CS 1 CS Standards Integration in CCA, Science, Math, and Language Arts	Daily (1 st Semester) Daily (2 nd Semester)	Creative Coding Exploring CS 1 7th CS Standards https://code.org/ student/middle-high https://emedia.uen .org/hubs/cs4utah	Spring 2021 Spring 2022
8th Grade	Creative Coding Code to Success Exploring CS 1 CS Standards Integration in Science, Math, and Language Arts classes	Daily (1 st Semester) Daily (After School) Daily (2 nd Semester)	Creative Coding Code to Success 8th CS Standards https://code.org/ student/middle-high https://emedia.uen .org/hubs/cs4utah	Spring 2021 Spring 2021 Spring 2022
High School Course Offerings	Exploring Computer Science 1 Computer Programming 1 Code to Success Computer Programming 2 Gaming Development Fundamentals 1 Gaming Development Fundamentals 2 CS Standards Integration in Science, Math, and Language Arts Classes	Daily Daily 2-3 times weekly Daily Daily Daily Daily	Exploring CS 1 Computer Programming 1 Code to Success Computer Programming 2 Gaming Development Fundamentals 1 Gaming Development Fundamentals 2 https://emedia.uen .org/hubs/cs4utah	Spring 2021 Spring 2021 Spring 2021 Spring 2022 Spring 2022 Spring 2023 Spring 2023
Concurrent Enrollment	Working with the college to develop a couple of course offerings	Daily during the College Semester		Fall 2021



PROFESSIONAL LEARNING: Creating Effective CS Teachers

BASELINE FOR CURRENT STATE OF TEACHER CS ENDORSEMENTS:

Computer Science Endorsements	Current # of Teachers with Endorsement in LEA
*Exploring Computer Science [now historic (as of Feb 1, 2020)]	1 teacher at Monument Valley High School
Computer Science 1 (updated endorsement to Introduction to Computer Science as of 2/1/2020)	
Computer Science 2 (updated endorsement to Programming and Software Development as of 2/1/2020)	1 teacher at Monticello High School 1 Whitehorse High School Math teacher is starting to work on this endorsement 1 Monument Valley Math teacher is starting to work on this endorsement
Introduction to Information Technology (updated endorsement to Information Technology Systems as of 2/1/2020)	
Web Development (updated endorsement: Web Development as of 2/1/2020)	1 San Juan High School Science teacher is starting to work on this endorsement

COMPUTER SCIENCE PROFESSIONAL LEARNING TIMELINE

Elementary Teachers

When	Grade level	# of Projected Participants	Content	Outcome/ Endorsement
<i>Ex. Fall 2020</i>	<i>Elementary teachers grade 3-5</i>	<i>3 sessions of 25 teachers</i>	<i>Data and Analysis Standards in Utah CS Standards 3-5</i>	<i>Teachers will be able to incorporate data visualizations and technology into their math and science instruction.</i>
School Year 2021	Grades K-6	4 Sessions for Grade Level Teachers w/ assignments in Science	Analysis and integration of CS standards into Science lessons	Teachers will be able to incorporate the technology and understand data in the Science classes.
School Year 2022	Grades K-6	4 Sessions for Grade Level Teachers w/ assignments in Mathematics and builds upon what was integrated with Science in the previous year.	Analysis and integration of CS standards into Mathematics lessons	Teachers will be able to incorporate the technology and understand data in the Mathematics classes in addition to their Science classes.
School Year 2023	Grades K-6	4 Sessions for Grade Level Teachers w/ assignments in ELA and builds upon what was integrated with Science and Math in the previous	Analysis and integration of CS standards into ELA lessons	Teachers will be able to incorporate the technology and understand data in the ELA classes in addition to their Science and Math classes.

		years.		
School Year 2024	Grades K-6	Monthly Sessions by Grade Level teams focused on CS integration in all subject and PD for new teachers.	Analysis and integration of CS standards in all subjects	Teacher lead collaborations on CS standards integration in Science, Math, and ELA. Teachers will provide support to each other and new teachers as they integrate CS standards into all subjects. Teachers will have peer and administrative observations as formative and summative feedback.

Middle School Teachers

When	Grade level	# of Projected Participants	Content	Outcome/ Endorsement
<i>Ex. Fall 2020</i>	<i>Elementary teachers grade 6</i>	<i>2 sessions of 30 teachers</i>	<i>Data and Analysis Standards in Utah 6th grade CS Standards</i>	<i>Teachers will be able to incorporate data visualizations and technology into their science instruction.</i>
<i>As most of our high schools are grade 7-12, please see the high school professional learning timeline.</i>				

High School Teachers

WHEN	Grade level	# of Projected Participants	Content	Outcome/ Endorsement
<i>Ex. Fall 2021</i>	<i>High School Teachers for Computer Science Principles (CSP) Endorsement</i>	<i>1 session of 15 teachers</i>	<i>Weeklong Training sponsored by the STEM Action Center with Code.org</i>	<i>Teachers will have completed the methods requirement for their Intro to CS endorsement.</i>
School Year 2021-23	Initiate and work on licensure and endorsement programs for all unqualified Secondary 7-12 grade teachers	As required for endorsement	<ul style="list-style-type: none"> - UBSE Endorsement programs - CTE Orientation Canvas Course - CTE Summer Conferences 	Teachers will be endorsed or completing their endorsement programs. CS teachers will also collaborate with other Core subject teachers to integrate cross-curricular CS instruction.
School Year 2021	Middle School and High School CS teachers will participate in collaboration time once per quarter	<ul style="list-style-type: none"> - Four sessions for 6-8 teachers (including Middle School CCA teachers) - Summer Conferences 	<ul style="list-style-type: none"> - Discuss 7-12 CS Standards - Share lesson plans - CTE Summer Conferences - CSforALL or other conferences 	CS Teachers will be able to work independently as a collaborative team and understand the latest innovative programs being offered in schools. They will also collaborate with Core subject teachers in their PLC's to integrate cross-curricular CS instruction.
Summer 2022	Initial CS teachers will finish endorsement program. Newly	<ul style="list-style-type: none"> - Four sessions for 6-8 teachers (including Middle School CCA 	<ul style="list-style-type: none"> - Discuss 7-12 CS Standards - Share lesson plans 	CS Teachers will be able to work independently as a collaborative team

	identified teachers will start or continue to work on endorsements and participate in collaboration time once per quarter (teacher turnover will continually affect this).	teachers) - Summer Conferences	- CTE Summer Conferences - CSforALL or other conferences	and understand the latest innovative programs being offered in schools. They will also collaborate with Core subject teachers in their PLC's to integrate cross-curricular CS instruction.
Summer 2023	CS Teachers continue participate in quarterly collaboration time and attend CS PD Conferences and other professional development. New teachers will continue to work on endorsement programs.	2-4 CS Teachers	Attend training that will prepare teachers to do additional CS classes.	Teachers will develop the capacity to teach additional CS classes beyond their primary requirements. They will also collaborate with Core subject teachers in their PLC's to integrate cross-curricular CS instruction.



DIVERSITY: Creating Computer Science for ALL

REQUIRED: *How will your LEA increase numbers of female students, as well as traditionally underserved students in computer science?*

Elementary schools: Our plan is to integrate the CS standards into the regular elementary curriculum. As a result, all students will have equitable access to high-quality CS curriculum and instruction. Additionally, we are purchasing classroom sets of mouse coding robots (K-2), Ozobots (3-6), and Spheros (5-8) for all elementary schools so that teachers and students will have access to tools or items that will enhance their CS instruction and make it more interesting and exciting for our students. Also, in our elementary schools, we have a 1:1 ratio of computers so that every student will have

access to a computer. We will also provide after school CS Robotics and Coding activities for students. Even though this will be open for all students, teachers and after school coordinators will encourage students who need additional help to participate. Finally, elementary schools will schedule annually a parent night for CS Robotics and Coding activities and after-school buses will be provided to ensure accessibility and equity for all students. The district's plan is to better prepare our students for middle school classes and entering into high school pathways.

Middle/High School: The school district and USU-Blanding jointly hired a Career Pathways Coordinator and her job is to work with all students in grades 5 through high school graduation and into college at the USU-Blanding Campus. Our Pathways Coordinator (who is a female teacher) will work with school counselors and ensure that all students and parents of female as well as traditionally underserved students are made aware of and participate in Computer Science opportunities at both middle and high schools. She will work with counselors, teachers, and parents in providing career exploration opportunities and making connections between learning and jobs. In additional CS standards integration in middle schools, we will provide Computer Science classes and after-school opportunities to participate in CS Coding and Robotics.

Our District Career Pathways Coordinator will plan and schedule with school and district input a district-wide Computer Science Education week and "Hour of Code" event annually in December. She will also coordinate CS and robotics events during USU-Blanding's annual STEAM Expo held generally during the second week of April. And the District has also joined "Girls Who Code" and is preparing to set up after school clubs in our schools. The district provides after-school buses for all student Monday through Thursday for all student who participate in after-school sports, activities, and clubs. These events and clubs will focus on female and underserved students.

Finally, many of our key technology teachers are female. Two of our CS teachers are Native American; one being female and the other male. These individuals serve as outstanding role models and examples of success for our female and traditionally underserved population. These teachers will also participate in CS outreach and recruiting.

REQUIRED: *How will you ensure that all curriculum and course content is accessible to all students, including students with disabilities?*

All twelve schools have established school leadership teams and teacher collaboration time focused on data-driven instruction and identifying Tier II and Tier III students

(generally at-risk or ELL) who may need additional support and appropriate accommodations. K-6 Special Education teachers will participate in CS professional development opportunities and will integrate CS standards into their curriculum. 7-12 Special Education teachers will be made aware of CS opportunities to include extra-curricular and after school activities. All Special Education teachers will work with student IEP teams to ensure that appropriate accommodations for students with disabilities are made. Computer assisted devices will be provided as needed.

Finally, at the middle and high schools, our school counselors and Pathways Coordinator will work with teachers and parents in providing career exploration opportunities and making connections between learning and jobs. They will also provide opportunities for students with disabilities to participate in Computer Science opportunities at both middle and high schools.

REQUIRED: *What strategies will you develop and implement for increasing diversity in K-12 Computer Science (i.e. expand programs to include parents and counselors in the learning process)?*

Elementary School: Our plan is to integrate the CS standards into the regular elementary curriculum so that all students will participate in CS learning. Additionally we are purchasing classroom sets of mouse coding robots (K-2), Ozobots (3-6), and Spheros (5-8) for all elementary schools so that teachers and students will have access to tools or items that will enhance their CS instruction and make it more interesting and exciting for our students. We will provide after school CS Robotics & Coding activities for students; will have an "Hour of Code" each December; and schedule a parent night for CS Robotics and Coding activities.

Middle/High Schools: Our Career Pathways Coordinator, school counselors, CS and Technology teachers, and administration will provide opportunities and activities for all students and parents so that they are aware of and can participate in Computer Science opportunities at both middle and high schools. This information will be provided in (1) College and Career Awareness (CCA) classes; (2) online career exploration opportunities; (3) parent-teacher conferences and family nights; (4) guest speakers; (5) individual student counseling; (6) career and job fairs; (7) brochures, flyers, and posters; and (8) our new CTE website which will go live on July 1, 2020, and all District and school websites (these websites will be updated monthly). We will also provide after-school club opportunities to participate in CS Coding and Robotics.



OUTREACH AND COMMUNICATION

REQUIRED: *How will your LEA communicate your computer science offerings and advances toward access for all students as you implement your 4-year plan?*

Our Computer Science communication plan shall include:

- Posting the District CS plan on the District and CTE Websites and asking for feedback on our plan.
- Publishing elementary activities and after-school programs in school letters and on the webpage of each school.
- Providing this information in parent-teacher conferences and in family night activities.
- Publishing our CTE CS pathways and classes in handouts, brochures, flyers, and posters, and on the CTE website.
- Providing CCA CS projects for 7th grade students.
- Providing online career exploration opportunities.
- Having parent nights focused on CS activities.
- Having guest speakers who have careers in CS.
- Providing individual student counseling outlining CS opportunities.
- Providing career and job fairs with CS occupations present.

REQUIRED: *Where will your LEA communicate your plan, updates on implementation, and required data and reporting on your website?*

https://www.sisd.org/apps/pages/index.jsp?uREC_ID=1754487&type=d&pREC_ID=1935301

Please note that we will be working to have this site totally updated by July 1, 2020. The pandemic has delayed our efforts.



DATA AND REPORTING

Elementary and Middle Current Computer Science Course Offerings FY 2020

(Please note that keyboarding and digital literacy are not CS courses.)

Grade Level	Number of Students Engaged in Computer Science Learning FY 2020	Total Number of Students
PreK (if applicable)	None	158
Kindergarten	71	203
First Grade	73	208
Second Grade	79	225
Third Grade	77	220
Fourth Grade	76	217
Fifth Grade	78	223
Sixth Grade	74	210
Seventh Grade	25	237
Eighth Grade	8	233

Elementary and Middle Computer Science Student Demographics:

NOTE: This data is not available in any reliable form. We believe that at least 35% of our elementary students have had some coding and robotics learning opportunities. A majority of these activities have been in schools where Native American (traditionally underserved population) are a majority of students. We will track this information during the FY 21 school year.

Grade Level	Female %	Underserved CS Population %	SPED %	ELL %	FRL %
PreK (if applicable)	N/A	N/A	N/A	N/A	N/A
Kindergarten	35%	100%	Unk	Unk	100%
First Grade	35%	100%	Unk	Unk	100%
Second Grade	35%	100%	Unk	Unk	100%
Third Grade	35%	100%	Unk	Unk	100%
Fourth Grade	35%	100%	Unk	Unk	100%
Fifth Grade	35%	100%	Unk	Unk	100%
Sixth Grade	35%	100%	Unk	Unk	100%
Seventh Grade	15%	33%	0%	22%	100%
Eighth Grade	0	50%	0%	50%	100%
TOTAL representation in all CS courses currently offered	29%	85%	Unk	Unk	100%

High School Current Computer Science Course Offerings FY 2020

Course Code and Title	Number of Sections Offered (FY2020)	Total Students Enrolled FY2020
'35020000037', -- Algorithms and Data Structures		
'35020013037', -- Algorithms and Data Structures CE		
'35020000041', -- AP Computer Science		
'35020000034', -- AP Computer Science Principles		
'35020000030', -- Computer Programming 1	1 (Whitehorse) 2 (MVHS)	14 30
'35020013030', -- Computer Programming 1 CE		
'35020000040', -- Computer Programming 2	1 (Whitehorse)	10
'35020013040', -- Computer Programming 2 CE		
'35020000035', -- Computer Science Principles		
'35020013035', -- Computer Science Principles CE		
'35020000003', -- Creative Coding	1 (ARL Middle)	27
'35020000007', -- Exploring Computer Science 1		
'35020000008', -- Exploring Computer Science 2		
'35020000045', -- Gaming Development Fundamentals		
'35020000046', -- Gaming Development Fundamentals 2		
'35020000055', -- HTML5 App Development Fundamentals		
'35020000050', -- IB Computer Science SL 1		
'35020000051', -- IB Computer Science SL 2		
'35020000048', -- Mobile Development Fundamentals		
'35020000060', -- Web Development 1		

'350200000065',-- Web Development 2		
-------------------------------------	--	--

Secondary Computer Science Student Demographics:

Course Code	Female %	Underserved CS Population %	SPED %	ELL %	FRL %
'35020000037', -- Algorithms and Data Structures					
'35020013037', -- Algorithms and Data Structures CE					
'35020000041', -- AP Computer Science					
'35020000034', -- AP Computer Science Principles					
'35020000030', -- Computer Programming 1	48%	100%	7%	61%	100%
'35020013030', -- Computer Programming 1 CE					
'35020000040', -- Computer Programming 2	20%	100%	30%	30%	100%
'35020013040', -- Computer Programming 2 CE					
'35020000035', -- Computer Science Principles					

'35020013035', -- Computer Science Principles CE					
'35020000003', -- Creative Coding	15%	33%	0%	22%	100%
'35020000007', -- Exploring Computer Science 1					
'35020000008', -- Exploring Computer Science 2					
'35020000045', -- Gaming Development Fundamentals					
'35020000046', -- Gaming Development Fundamentals 2					
'35020000055', -- HTML5 App Development Fundamentals					
'35020000050', -- IB Computer Science SL 1					
'35020000051', -- IB Computer Science SL 2					
'35020000048', -- Mobile Development Fundamentals					
'35020000060',-- Web Development 1					
'35020000065',-- Web Development 2					
TOTAL representation in all	28%	78%	12%	38%	100%

CS courses currently offered					
------------------------------	--	--	--	--	--



PROPOSED BUDGET

REQUIRED: Proposed K-12 Computer Science Plan Budget Narrative

Our Computer Science plan budget priorities are focused on (1) professional development for K-8 teachers, (2) summer preparation time for K-8 teachers, (3) Consultant professional development during the school year, (4) Travel for teachers who need to attend professional development, and (5) supplies to include classroom sets of robots for each school as part of each school's innovation/maker space.

- Salaries & Benefits: Pay for a CS STEM teacher coach who can provide CS coaching and professional development for our K-8 teachers as they integrate the CS K-8 CS standards into their curriculum (\$23,000 plus benefits). This teacher coach will coordinate and help deliver the professional development needed for our K-8 teachers. We have limited CS expertise in our schools and this position will be critical as we provide the professional development necessary for K-8 teachers to gain the confidence needed to integrate the CS standards into their curriculum. This individual will be assisted by other teachers in schools who have CS and technology experience.
- Salaries and benefits: \$100 Inservice stipend for K-8 teachers from each grade level team to participate in CS professional development and integrate the CS standards into their lesson plans (1st Year: \$100 x 50 days plus benefits, 2nd Year \$100 x 30 days, 3rd Year: \$100 x 25 days, and 4th Year: \$100 x 20 days). See justification above.
- Purchased Services: (1) Purchase a yet to be determined online coding program (\$1000). (2) Elementary CS Consultant from UVU to visit each elementary school and provide professional development activities (\$2,000 first year and \$1,000 for years 2 & 3). (3) Secondary CS consultant from UVU to work with all secondary CS teachers (\$1,000 for years 1, 2, & 3). We need to purchase a simple online program to help teachers integrate CS standards into their curriculum. We will

have a team of teachers evaluate different programs this summer (if possible) or the Fall 2020 to identify what we plan to purchase.

- Travel: For teachers to attend required CS professional development (\$2,000 for years 1 and 2. \$1000 for years 3 and 4). Since there exists great distances between our schools or to summer conferences, we need to pay for specific teachers to travel as necessary. District vehicles will be used to the best extent possible.
- Supplies: Purchase classroom sets (1) Mouse Coding Robots for K-2, Ozobots for grades 3-5, Sphero robots for grades 5-8, and Hummingbird coding robots for 6-8 grades. Funds for this category will provide tools to help teachers make their CS lessons focused, fun and exciting. These items will be cataloged into our library system for check out and will be part of each school's innovation/maker space area.

REQUIRED: Use of non-grant funds and existing LEA resources.

Our 4-Year Computer Science Plan aligns with our District, Curriculum, CTE, STEM, and Computer Science goals. We will be using the combination of district funds, funds from several grants, and CTE funds to get our CS programs started and functioning. CTE funds will support most 9-12 Computer Science requirements.

REQUIRED: How will your LEA sustain the computer science program after the term of the award?

As elementary teachers become competent in the Elementary CS Standards, the professional development requirements will be integrated into the District's ongoing professional development program. The initial startup costs for purchasing robots, coding programs, and other CS supplies will not exist in 4-years. Schools will be able to incorporate any requirements into their budgets and computer rotation cycles. As more students become interested in high school CS pathways, we anticipate that additional CTE funds will be generated and be able to support all costs associated with Computer Science classes, pathways, and CTSO clubs.

REQUIRED: If an increase in funding is available through unclaimed grant redistribution, how will your LEA utilize additional funding toward your plan?

- Professional Development is our primary objective in our 4-Year CS Plan and grant application.
- If funding is decreased, the District will reduce the amount funds requested for supplies and then reduce the amount of professional development given to teachers.
- If the funding is increased, the District will attempt to hire a full-time technology coach/teacher who will focus on CS standards integration in K-6 and support CS courses in middle/high school.

LEA FY2021 CS Projected Allocation (Coming Soon: <https://www.schools.utah.gov/cte?mid=3363&tid=5>)


Proposed Budget				
Description	Funding Requested – Year One (FY2021)	Funding Requested – Year Two (FY2022)	Funding Requested – Year Three (FY2023)	Funding Requested – Year Four (FY2024)
A.(100) Salaries	\$28,000	\$26,000	\$25,500	\$25,000
B (200) Employee Benefits	\$10,418	\$10,218	\$10,168	\$10,118
C. (300) Purchased Professional & Technical Services	\$4,000	\$3,000	\$3,000	\$1,000
D. (400) Purchased Property Services				
E. (500) Other Purchased Services				
F. (580) Travel	\$2,000	\$2,000	\$2,000	\$2,000

G.(600) Supplies/Materials	\$25,000	\$10,000	\$5,000	\$3,000
H. (800) Other (Exclude Audit Costs)				
I. TOTAL DIRECT COSTS (Lines A through H)				
J. (800) Other (Audit Costs)				
K. Indirect Cost				
L. Property (includes equipment)				
M. TOTAL (Lines I through L)	\$69,418	\$ 51,218	\$45,668	\$41,118

STATEMENT OF ASSURANCES

Should an award of funds from the K-12 Computer Science Grant Program be made to the applicant in support of the activities proposed in this application, the authorized signature on this page of the application certifies to the USBE that the authorized official will:

1. Upon request, provide the Utah State Board of Education with access to records and other sources of information that may be necessary to determine compliance with appropriate federal and state laws and regulations.
2. Conduct educational activities funded by this project in compliance with the following federal laws:
 - a. Title VI of the Civil Rights Act of 1964
 - b. Title IX of the Education Amendments of 1972
 - c. Section 504 of the Rehabilitation Act of 1973
 - d. Age Discrimination Act of 1975
 - e. Americans with Disabilities Act of 1990
 - f. Improving America's Schools Act of 1994
3. Use grant funds to supplement and not supplant existing funds from all sources.
4. Take into account, during the development of programming, the need for greater access to and participation in the targeted disciplines by students from historically underrepresented and underserved groups.
5. Submit, in accordance with stated guidelines and deadlines, all K-12 Computer Science Grant Program and evaluation reports required by the Utah State Board of Education.
6. The applicant will retain records of the K-12 Computer Science Grant Program for five years and will allow access to those records for purposes of review and audit.
7. Execute all actions defined under the LEA Statement of Assurances outlined below.

Kit Mantz	CTE Director		May 8, 2020
-----------	--------------	--	-------------

(Digital Signatures encouraged, as final submission of plan needs to be a Google Document.)