# Technology Plan



# Ceres Unified School District

## July 1, 2014 - June 30, 2017

This plan is for EETT and E-Rate.

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## Background and Demographic Profile

Ceres Unified School District has an enrollment of approximately 12,800 students in grades TK-12, with additional programs for preschool and adult education. CUSD is comprised of twelve elementary schools, three junior high schools, two comprehensive high schools, one continuation high school, one alternative high school, and three charter schools. Ceres race and ethnicities population comprises of 72% Hispanic/Latino, 18% White, 5% Asian, 2% African American and 3% Other. Eighty-one percent of our students are on Free or reduced lunch and a third of our students are English learners.

The District has engaged in more than a decade long school building program. The latest construction projects include Lucas Dual Immersion Academy which opened in August of 2013, Patricia Kay Beaver Elementary which is scheduled to open in the fall of 2014, and Walt Hanline Elementary scheduled to open in the fall of 2015.

**July 1, 2014 - June 30, 2017**

Ceres Unified School District's (CUSD) TK-12 technology plan promotes the use of technology in all classrooms, and provides leadership and training in using technology as a key tool of education. With the opening of a total of seven new schools in a decade, CUSD is able to provide students with smaller schools, smaller class sizes and opportunities to learn through the use of state-of-the-art technology tools.

The District Technology Plan serves as a guide for the district's use of education technology for the next three years, July 1, 2014 through June 30, 2017. This plan will also serve as the District's technology planning document for E-rate purposes. The Plan was written by a team of educators with the guidance of school personnel and district administrators.

Goals are identified in Section Three of the Plan to meet curricular needs for grades TK-6, 7-8, and 9-12. These goals focus on meeting the content and technology needs of Common Core State Standards in all grade levels. The activities and the benchmarks are aligned to the common core standards and emphasize building the capacity of all students in meeting full participation.

Staff development needs and activities have been identified to meet the technology needs of the students in Section Four.   Teachers will be trained in the skills needed to meet the curricular goals. Benchmarks have been developed to meet these goals, outlining how teachers will be trained each year. The Fifth Section of the Plan outlines what needs to be purchased based on the curricular goals and activities set forth in section three. This section describes the status of technology at each site, what software, hardware, infrastructure and technical support needs to be funded, and a timeline for filling those needs.

A budget is presented in Section Six identifying sources of income that could be used to fund technology and cost of each technology infrastructure item needed. Section Seven describes the evaluation plan that details how the impact of technology on students will be evaluated, who will do the evaluation and what will be done with the data collected. Section Eight describes how Ceres Unified collaborated with local adult literacy providers to maximize the use of technology and develop strategies to better use other funding resources. Section Nine describes the relevant research behind the design of this plan and the strategies and methods selected. In addition, this plan describes the process the district will use to extend and support the academic rigor provided by the district's curriculum.

## 2. Stakeholders

| Stakeholders | | |
|---|---|---|
| **Name** | **Position** | **CDS** |
| Chris Higle | District Administrator | Stanislaus<br>Ceres Unified |
| Jessie Ceja | District Administrator | Stanislaus<br>Ceres Unified |
| Cathy Pietanza | Program Specialist, Educational Services | Stanislaus<br>Ceres Unified |
| Julie Lynn Martin Borba | Grants/Communications Specialist | Stanislaus<br>Ceres Unified |
| Ronda Munoz | Instructional Coah | Stanislaus<br>Ceres Unified |
| Kim Richter | Instructional Coach | Stanislaus<br>Ceres Unified |
| Brian Wise | Classroom Teacher | Stanislaus<br>Ceres Unified<br>Central Valley High |
| John Fosenburg | Classroom Teacher | Stanislaus<br>Ceres Unified<br>Argus High (Continuation) |
| Michelle Borges | Classroom Teacher | Stanislaus<br>Ceres Unified<br>Samuel Vaughn Elementary |
| Paul Rutishauser | Site Administrator | Stanislaus<br>Ceres Unified<br>Mae Hensley Junior High |
| Dillon Jones | Classroom Teacher | Stanislaus<br>Ceres Unified<br>Cesar Chavez Junior High |
| Kristin Swanke | Classroom Teacher | Stanislaus<br>Ceres Unified<br>Ceres High |

The Education Technology Plan was developed by a district leadership team consisting of: District Director of Information Technology Chris Higle, District Coordinator of Curriculum and Instruction, Jessie Ceja, and District Program Specialist, Cathy Pietanza. The District's Grants and Communications Specialist, Julie Lynn Martin Borba also participated in the development of this Plan, given her extensive knowledge of the District's plans with technology integration in the area of instruction, having successfully written many grants for Ceres Unified that focus on this area. This team obtained input throughout the plan development process from various sources including; District and site administration, including the Assistant Superintendent of Educational Services, Debi Bukko, CTAP 6 representatives, including Linda Smith, teacher and student results from the BrightBytes Ed Tech Survey, and Ceres Unified Technology Advisory Committee members.

This Plan was also presented to the members of the Ceres Community Collaborative for review and recommendation. The Ceres Community Collaborative is comprised of representatives of family resource agencies, district administration, parent representatives, faith-based organizations, and many more.

3a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.

### 3a. Current access by teachers and students

The Ceres Unified School District Technology Plan describes the technology access available in classrooms, libraries, and computer labs for all students and teachers. In K-6 the average student to computer ratio is 7.9, in grades 7-8 the average student to computer ratio is 4.8, and in grades 9-12 it is 10.7.

### Elementary (K – 6)

Ceres Unified has twelve elementary schools. All elementary school teachers have access to the Internet, email, the student information system, network folders and other online services in their classrooms.   All classrooms have IP telephones with voicemail integrated with email. All classrooms have access to a user support web sites. All classrooms have access to Discovery Education streaming – a standards based video service with video clips that support curriculum. All teachers have access to Datawise Measures. This is the District's student performance data analysis system for both state and local assessments. Classroom and lab computers are available to teachers and students before, during, and after the regular school day. In addition, the District's extensive after school program utilizes classroom and lab computers to support learning Common Core State Standards in Math and English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects. Schools with computer labs have regularly scheduled computer time for students during the school day and after school. Library computers at all sites are available to students before, during, and after school. Sites incorporate the use of technology to supplement core instruction using the following software; Education City, Study Island, Waterford, and other online resources.

### Middle School (7 – 8)

Ceres Unified has three junior high schools.   All teachers have access to the Internet, email, the student information system, network folders and other online services in their classrooms.   All classrooms have IP telephones with voicemail integrated with email. All classrooms have access to a user support web sites. All classrooms have access to Discovery Education streaming – a standards-based video service with video clips that support curriculum. All teachers have access to Datawise Measures. This is the District's student performance data analysis for state and local assessments. Classroom and lab computers are available to teachers and students before, during, and after the regular school day. In addition, the District's extensive after school program utilizes classroom and lab computers to support learning Common Core State Standards in Math and English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects. Students have access to courses in technology focusing on the use of Microsoft Word, Power Point, Publisher and Excel software. Library computers at all sites are available to students before, during, and after school.

## High School (9 - 12)

Ceres Unified has two comprehensive high schools and an alternative education center. All teachers have access to the Internet, email, the student information system, network folders and other online services in their classrooms.    All classrooms have access to a user support web sites. All classrooms have access to Discovery Education streaming – a standards-based video service with video clips that support curriculum. All teachers have access to Datawise Measures. This is the District's student performance data analysis for both state and local assessments. Classroom and lab computers are available to teachers and students before, during, and after the regular school day.   Library computers at all sites are available to students before, during, and after school. Students have access to courses in technology through CTE, ROP, and other programs. In these courses they are able to apply knowledge and skills learned to real world experiences.

## Charter Schools

Whitmore Charter School of Art and Technology is a site based Kindergarten through Eighth grade school with two classes at each grade. The school offers a mix of experiential, project based learning and traditional teaching approaches. Kindergarten through Fifth Grades work collaboratively to ensure that every child is provided the opportunity, not only to learn, but to love learning. In Sixth through Eighth Grades, our students experience quality middle school education in a safe and academically challenging environment. The Middle School teaching team is unified in their expectation that Whitmore students develop skills that will support them in their quest for success throughout their lives. Electives for the Middle School students include Spanish, Innovative Music, Art I and II, Drama, Dance, Digital Art, Life skills, and classroom teaching assistant opportunities.

Whitmore Charter High School is designed for families who are seeking innovation education for their families. Families are offered the opportunity to design their child's education through a combination of online, on-site and home school learning. All families are assigned a credentialed Advisory teacher to help guide them through curriculum, instruction, assessment, and the overall High School experience.

Whitmore Charter School of Personalized Learning provides Kindergarten through Eighth grade students with home school advisory teachers and support. Each family is assigned a credentialed Advisory Teacher who guides them through the learning process, from curriculum design and choice to instructional and assessment support. Whitmore Charter School of Personalized Learning students are encouraged to participate in on-site enrichment opportunities.

3b.   Description of the district's current use of hardware and software to support teaching and learning.

**3b. Current use of technology to support teaching and learning:**

Ceres Unified School District has identified two specific priorities for technology to support and enhance teaching and learning.

- Provide data on student performance to teachers, students and their parents. Data will be relevant and timely. The data has been available to educators, but it has not been used to its full potential. Our priority is to increase the availability of data in a user-friendly manner to all stakeholders who can impact the student's learning.
- Provide effective online teacher and student resources that provide supplemental teaching and learning tools that support classroom learning. That could be video, web pages, or support services that we contract from outside the District.

Ceres Unified supports widespread use of technology. The District is committed to this by providing appropriate technology skill development and adequate hardware and software. Throughout daily curriculum, teachers address issues relevant to information literacy and the appropriate uses of technology.

Classroom computers are used by students to research and compose brief and long writing assignments. Teacher computers are used for student record-keeping, lesson design and creation, lesson/file storage and retrieval, communication, creation of graphic organizers, custom images, and presentations. Teachers also use document cameras, Mobi tablets, and digital projectors to present resources and lessons to students.

Almost all of our communication is done via technology (computers) as is most record-keeping by administrators and teachers.

Teachers use all of the available forms of technology to create well-researched, well-designed, focused, and engaging lessons for their students. The resources accessible through technology (Web, productivity programs & tools, graphics resources, interactive manipulatives, and personal Web pages) enable teachers to create quality, professional documents and presentations to be used with peers and students.

Technology skill development begins in primary grades and becomes more formalized in fourth grade and beyond. Microsoft Office is available on every district computer with different emphasis being placed on Word, Excel, and Power Point by grade level. Accelerated Reader is an example of a program used to help students find leisure reading books at their reading level and is used weekly to assess reading skills in Language Arts classrooms. AutoCAD drafting software is available at the high school level as is computer graphics, which focuses on Adobe Photoshop, digital photography, flatbed scanning, digital portfolio production, Creative Suites III, web page design, and video production offered on a semester basis.

Information literacy is supported by the teachers using computers for research (using the Internet and encyclopedic software), creating original materials for duplication, communication with peers and parents via e-mail, grade book management, lesson planning and designing, creating and showing instructional presentations, and personal productivity. Based on the skill level of each teacher these technology literacy activities occur on a daily, weekly, or monthly basis.

All schools maintain a computerized library which provides a management system for monitoring and assessing the amount and use of all library materials. This program also provides an online catalog which offers bibliographic and status information on all materials in the libraries.

Technology is integrated into the curriculum through a variety of means. Some examples of uses are: research for projects using the Internet and encyclopedic software; keyboarding skills; word processing of research projects, poetry, writing instruction and practice; creating presentations (slideshows) for research projects; math and language arts skills practice; and problem-solving simulations. Students and educators use web-based software such as Google Earth. They use web-based tutorials, streaming video, streaming audio, and digital TV. Schools have increasing access to curriculum software loaded on local serves and available online. This software is part of the curriculum adoptions and is integrated with the publisher's books. Teachers and students throughout the district use these technology resources on a daily basis.

3c.   Summary of the district's curricular goals that are supported by this tech plan.

In 2001, the Ceres Unified School District Board of Trustees adopted a Strategic Plan that formalizes and prioritizes the goals and objectives of the District to ultimately improve student academic achievement. Data are collected annually to ensure progress toward meeting goals. Student achievement in English Language Arts and Mathematics are the number one and two priorities of the district. The Plan defines the District's vision, mission and strategic goals, how it will achieve them and how it serves to manage changing priorities. Additionally, the Strategic Plan incorporates technology use as a goal to support ELA, Literacy and Mathematics. In addition, the District's Common Core Implementation Plan further supports the incorporation of technology use in teaching the new standards. Both plans are available for viewing on the Ceres Unified School District website at  www.ceres.k12.ca.us.

<div align="center">C      E      R      E      S</div>

**<div align="center">Committed to Excellence, Responsive to Every Student</div>**

The Strategic Plan mission emphasizes that our students will achieve mastery of academic standards in a safe and supportive environment. A quality, balanced education is provided producing graduates that are college and career ready, resulting in citizens that are academically prepared for the college and career challenges in their community and the greater global society. Additionally, students and staff are equipped, educated and supported with the appropriate technology needed for teaching and learning the newly adopted Common Core State Standards.

This Technology Plan focuses on supporting the newly adopted Common Core State Standards in English Language Arts, literacy and mathematics practices/applications. Communication, both verbal and written, is crucial to becoming college and career ready. Using speaking or writing, students utilize resources to support and defend opinions, demonstrate understanding of subjects and communicate clear information and experiences to their audiences. Technology provides

them a means to build capacity in research and respond analytically to literary and informational sources. They need to be able to use technology strategically when creating, refining and collaborating. Students must become adept at gathering information, evaluating sources, and citing material accurately and clearly in order to concisely communicate the information. Strategic use of digital media and visual displays provide students with appropriate means to demonstrate their acquired knowledge. Developing an understanding of and connecting the mathematical practices to mathematical content is enhanced with the use of technology. Building math conceptual knowledge and applying it to mathematical procedures gives students a concrete understanding of math.

In addition, every school site has a Single Plan for Student Achievement that includes a technology component to support student achievement in core content areas as guided by the Strategic Plan. The Strategic Plan and therefore the School Plan for Student Achievement are supported by this District Technology Plan.

> 3d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals.

**Goal 3d.1: Students will use technology, including the Internet, to produce and publish writing, and to interact and collaborate with others in all content areas.**

Objective 3d.1.1: By 2017, 70% of students in each grade level, TK-12, inclusive of special populations, will use a variety of grade level appropriate digital tools, including the Internet, to produce publish, and update individual or shared writing products in response to ongoing feedback, including collaboration with peers.

Benchmarks:
- Year 1: Year 1 - 25% of students in each grade level, TK-12, inclusive of special populations, will use a variety of grade level appropriate digital tools, including the Internet, to produce publish, and update individual or shared writing products in response to ongoing feedback, including collaboration with peers.
- Year 2: Year 2 - 50% of students in each grade level, TK-12, inclusive of special populations, will use a variety of grade level appropriate digital tools, including the Internet, to produce publish, and update individual or shared writing products in response to ongoing feedback, including collaboration with peers.
- Year 3: Year 3 - 70% of students in each grade level, TK-12, inclusive of special populations, will use a variety of grade level appropriate digital tools, including the Internet, to produce publish, and update individual or shared writing products in response to ongoing feedback, including collaboration with peers.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| TK-2 students will use a variety of digital tools to produce and publish one or more writing projects, including collaborating with others. | Annually | Classroom Teachers, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations, Student Survey | Published writing samples, Student Survey |
| Grades 3-6 students will use technology, including the Internet, to produce and publish one or more writing projects, as well as interact and collaborate with others. | Annually | Classroom Teachers, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations, Student Survey | Published writing samples, Student Survey |
| Grades 7-12 students will use technology, including the Internet, to produce, publish and update individual or shared writing products in response to ongoing feedback, including new arguments or information. | Annually | Classroom Teachers, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations, Student Survey | Published writing products, Student Survey |

**Goal 3d.2: Students will make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.**

Objective 3d.2.1: By 2017, 85% of students in each grade level, TK-12, inclusive of special populations, will make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence.

Benchmarks:
- Year 1: By Year 1, 35% of students in each grade level, TK-12, inclusive of special populations, will make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence.
- Year 2: By Year 2, 55% of students in each grade level, TK-12, inclusive of special populations, will make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence.
- Year 3: By Year 3, 85% of students in each grade level, TK-12, inclusive of special populations, will make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| In presentations, grades TK-1 students will add drawings or other visual displays. | Annually | Classroom Teachers, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations, Ed-tech survey | Presentation Product, Presentation Observation, Ed-tech survey |
| In presentations, grades 2-4 students will include audio recordings and visual displays to enhance the development of the main idea or theme. | Annually | Classroom Teachers, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations, Ed-tech survey | Presentation Product, Presentation Observation, Ed-tech survey |
| In presentations, grades 5 - 8 students will include or integrate multi-media components and visual displays to clarify information and strengthen claims and evidence. | Annually | Classroom Teachers Site, and District Administrators | Classroom Walkthroughs, Classroom Informal Observations, Ed-tech survey | Presentation Product, Presentation Observation, Ed-tech survey |
| In presentations, grades 9 - 12 students will strategically use digital media (e.g. textual, graphical, audio, visual, and interactive elements)to enhance understanding of findings, reasoning, and evidence. | Annually | Classroom Teachers, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations, Ed-tech survey | Presentation Product, Presentation Observation, Ed-tech survey |

**Goal 3d.3: Students will use a variety of technology to apply mathematics in solving problems arising in everyday life, school and society.**

Objective 3d.3.1: By 2017, 50% of students in each grade level, TK-12, inclusive of special populations, will use a variety of technology to apply mathematics in solving problems arising in everyday life, school and society.

Benchmarks:
- Year 1: Year 1, 15% of students in each grade level, TK-12, inclusive of special populations, will use a variety of technology to apply mathematics in solving problems arising in everyday life, school and society.
- Year 2: Year 2, 30% of students in each grade level, TK-12, inclusive of special populations, will use a variety of technology to apply mathematics in solving problems arising in everyday life, school and society.

- Year 3: Year 3, 50% of students in each grade level, TK-12, inclusive of special populations, will use a variety of technology to apply mathematics in solving problems arising in everyday life, school and society.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Utilize diagrams, spreadsheets and other technology to solve real world situations. | Annually | Classroom Teacher | Classroom Walkthroughs, Classroom Informal Observations, Ed-tech survey | Sample solutions, Ed-tech survey |

**Goal 3d.4: Students will use technological tools to explore and deepen the understanding of mathematical concepts.**

Objective 3d.4.1: By 2017, 50% of students in each grade level, TK-12, inclusive of special populations, will use technological tools to explore and deepen the understanding of mathematical concepts.

Benchmarks:
- Year 1: Year 1, 15% of students in each grade level, TK-12, inclusive of special populations, will use technological tools to explore and deepen the understanding of mathematical concepts.
- Year 2: Year 2, 30% of students in each grade level, TK-12, inclusive of special populations, will use technological tools to explore and deepen the understanding of mathematical concepts.
- Year 3: Year 3, 50% of students in each grade level, TK-12, inclusive of special populations, will use technological tools to explore and deepen the understanding of mathematical concepts.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Grade 7 - Use technology to draw geometric shapes with given conditions. | Annually | Classroom Teacher, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations | Completed drawing |

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| Math I, II & III - Use technology to graph functions, including those expressed symbolically, make tables of values or find successive approximations. Be prepared to illustrate the effects on the graph using technology. | Annually | Classroom Teacher, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations | Sample calculations from students |
| Math I - Compute and interpret the correlation coefficient of a linear fit. | Annually | Classroom Teacher, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations | Sample student computations |
| Evaluate the logarithms of constructed linear, quadratic and exponential models. | Annually | Classroom Teacher, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations | Printouts of problems and solutions. |
| Use technology for matrices of dimension 3X3 or greater to find the inverse and solve systems of linear equations. | Annually | Classroom Teacher, Site and District Administrators | Classroom Walkthroughs, Classroom Informal Observations | Sample solutions |

3e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.

**Goal 3e.1: Students will acquire knowledge of a variety of digital tools, Internet, multimedia, and information literacy resources necessary to collaborate, produce, publish, and solve problems.**

Objective 3e.1.1: By 2017, 75% of students in each grade level, TK-12, inclusive of special populations, will acquire knowledge of a variety of digital tools, Internet, multimedia, and information literacy resources necessary to collaborate, produce, publish, and solve problems.

Benchmarks:
- Year 1: Year 1 25% of students in each grade level, TK-12, inclusive of special populations, will acquire knowledge of a variety of digital tools, Internet, multimedia, and information literacy resources necessary to collaborate, produce, publish, and solve problems.
- Year 2: Year 2 50% of students in each grade level, TK-12, inclusive of special populations, will acquire knowledge of a variety of digital tools, Internet, multimedia,

and information literacy resources necessary to collaborate, produce, publish, and solve problems.

- Year 3: Year 3 75% of students in each grade level, TK-12, inclusive of special populations, will acquire knowledge of a variety of digital tools, Internet, multimedia, and information literacy resources necessary to collaborate, produce, publish, and solve problems.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Students will learn how to use the applications in Google Applications in Education, including Google Drive. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | Classroom Walkthroughs, Classroom Informal Observations, Student Survey | Sample Products and Publications, Student Survey |
| Students will learn how to utilize Google Applications in Education to collaborate, produce and publish products in Google Drive. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | Classroom Walkthroughs, Classroom Informal Observations, Student Survey | Sample Products and Publications, Student Survey |
| Students will learn to research information using digital resources, including the Internet and identify credible sources. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers, Library/Media Clerks | Classroom Walkthroughs, Classroom Informal Observations, Student Survey | Student Survey |
| Students will learn how to include visual displays, videos, audio clips and other multimedia in documents. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | Classroom Walkthroughs, Classroom Informal Observations, Student Survey | Sample Products and Publications, Student Survey |
| Students will learn how to use spreadsheets, graphing calculators and other mathematical digital tools. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | Classroom Walkthroughs, Classroom Informal Observations, Student Survey | Sample solutions, Student Survey |

3f. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use

By the third week of each school year all students are provided with instruction in the appropriate and ethical use of information technology. These lessons include topics about lawful and unlawful use of copyrighted materials and fair use. The lessons also deal with appropriate

use copyrighted materials and distinguishing between fair use and copyrighted materials. The lessons are developed in conjunction with the Educational Services and Technological Services Departments of CUSD. Additionally, each student is required to complete an acceptable technology use agreement prior to using any district technology. The plan delineates the appropriate use of copyrighted materials.

**Goal 3f.1: All students and staff in our district will be able to distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism.**

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Design and deliver series of trainings focusing on ethical use of information technology including the following topics: copyright and fair use, downloading and file sharing, and plagiarism. | Annually - August | Classroom teacher, Site administrator, Coordinator of Child Welfare and Attendance, Director of Information Technology | Administrators will review the training prior to the roll out annually. | Student daily attendance record |
| Provide training and information focusing on ethical use of information technology for teachers, classified staff, and administrators. | Annually - August | Site and district administrators | Digital schools sign-in sheet | Digital schools print out, Technology survey results |

3g. List of goals and an implementation plan that describe how the district will address Internet safety, including how to protect online privacy and avoid online predators. (AB 307)

By the third week of each school year all students are provided with instruction about digital citizenship. These lessons include topics about online privacy, social networking, and online predators including not sharing confidential information online and avoiding contact with unknown individuals via the internet. These lessons also focus on not using user names or passwords that could potential identify the student. The lessons are developed in conjunction with the Educational Services and Technological Services Departments of CUSD. Additionally, each student is required to complete an acceptable technology use agreement prior to using any district technology. The plan delineates the appropriate use of technology and avoiding situations where private information may be shared over the internet.

**Goal 3g.1: All students and staff in our district will be educated to be safe responsible users of digital tools in the 21st century; students will be knowledgeable of internet safety including awareness and dangers of cyber bullying, protection against online predators, and how to maintain online privacy.**

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Review and update (if needed) District AUP. Ensure that administrators along with the technology committee address the AUP in staff meeting and have every employee sign agreement. Verify that each student has a signed AUP on file with parent or guardian signature. | Annually, September | Site Administrators Coordinator of Child Welfare and Attendance Director of Information Technology | Review of AUP will be done by the Technology Advisory Committee Participation is verified by Coordinator of Child Welfare and Attendance | Online and Infinite Campus verification |
| Design and deliver a series of trainings focusing on internet safety including the following topics: cyber bullying, social networking, protecting online privacy and avoiding online predators. | Annually, August | Classroom teacher Site administrator Coordinator of Child Welfare and Attendance Director of Information Technology | Administrators will review the training prior to the roll out annually. | Student daily attendance record |
| Provide training and information focusing on internet safety for teachers, classified staff, and administrators. | Annually, August | Site and district administrators | Sign-in sheet verification Technology survey | Digital schools print out Technology survey results |

3h.   Description of the district policy or practices that ensure equitable technology access for all students.

The District's goal is that all students will be college and career ready by the time they graduate. The District is committed to providing the technology resources necessary to demonstrate students understanding of Common Core State Standards.   All students will have appropriate access to technology necessary to meet this goal. The District supports the vision of every student having access to an Internet connected device at school. Technology access is available to support student learning in each grade level, TK-12, inclusive of special populations. For

example, all students have access to networked, fully equipped computer labs before, during, and after school.

Technology will support special education students by allowing them visual supports to process instruction in the classroom, such as access to pictures to comprehend vocabulary and key words. Technology will also assist students with organizational skills, along with quick access to tools such as dictionaries, thesaurus, and spelling check. It will also provide an alternative for students with severe fine motor issues to produce word documents that are legible. Technology is also vital as an alternative means of communication for many severely handicapped students needing specialized materials/devices that give them access to the world around them.

> 3i. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs.

All student record keeping is done in Infinite Campus. Record keeping includes attendance, scheduling, grades, behavior, health, program participation, assessments, etc. All teachers are required to use Infinite Campus. All students and parents are eligible to have accounts to view information.

Ceres Unified School District has focused on data driven decisions for more than 10 years. We use DataWise Measures by Measured Progress for creating, scanning and analyzing benchmark assessments. We also import all state academic assessments into DataWise Measures to utilize the analysis tools available in the system. This powerful data analysis tool allows teachers and administrators to monitor and evaluate school programs, instruction and individual student progress. School sites regularly review newly added assessment data in grade levels, departments and professional learning communities and adjust instruction when needed.

**Goal 3i.1: All administrators and teachers will access and use student information for data-driven decision-making to improve student academic achievement.**

Objective 3i.1.1: Continue to support Infinite Campus, the Student Information System (SIS) for continued accessibility by 100% of the district's teachers and administrators.

Benchmarks:
- Year 1: Maintain 100% of the teachers and administrators trained in all appropriate modules of Infinite Campus.
- Year 2: Maintain 100% of the teachers and administrators trained in all appropriate modules of Infinite Campus.
- Year 3: Maintain 100% of the teachers and administrators trained in all appropriate modules of Infinite Campus.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Continue to train all newly hired teachers and administrators in all appropriate modules of Infinite Campus. | Annually during New Teacher Orientation | Director of Information Systems, Director of Curriculum and Instruction | New employee check off list, Survey | Registration forms, Sign in sheets, Survey results |

**Goal 3i.2: Administrators and teachers will utilize DataWise Measures, the assessment warehouse electronic database, to access and analyze assessment data to more efficiently make data driven decisions supporting the improvement of student achievement.**

Objective 3i.2.1: Continue to support administrators and teachers in the use of DataWise Measures, to access and analyze assessment data.

Benchmarks:
- Year 1: Continue to support administrators and teachers in the use of DataWise Measures, to access and analyze assessment data.
- Year 2: Continue to support administrators and teachers in the use of DataWise Measures, to access and analyze assessment data.
- Year 3: Continue to support administrators and teachers in the use of DataWise Measures, to access and analyze assessment data.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Provide technical support to the DataWise Measures hardware and application. | Ongoing | Database Administrator, Director of Information Services | Helpdesk Requests | Helpdesk reports |
| Provide assistance in accessing DataWise Measures reports. | Ongoing | Program Specialist, Educational Services | Requests | Completed requests |
| Analyze student performance of state and benchmark assessments. | Ongoing | Site and district personnel, Classroom Teachers | Classroom Walkthroughs, Classroom Informal Observations, Grade level and department meetings | Assessment results, Grade level and department meeting minutes |

3j.  List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.

The District's Student Information System (SIS) is Infinite Campus. This system has a robust parent and student portal that provides families with grades, attendance, behavior, health, and demographic information. In addition, Infinite Campus provides a link to the integrated teacher lesson planner. Families are able to see past assignments and grades. They are also able to see future assignments and the due date. These features are dependent on the teachers using the integrated lesson planner. All Ceres Unified teachers are encouraged to use these features. At time of this plan writing, 70% of teachers were using the lesson planner which makes information regarding assignments, etc., available to parents. Although all parents have access to the system, not all parents use the system. For all schools, 26% of the parents have used the parent portal between August 14, 2013 and December 16, 2013. Parents are reminded about the Parent Portal at back-to-school night and other school functions. Information about the portal is available on the District's website. Teachers and District staff make parent phone calls regarding students. A few teachers have developed web sites as a communication tool for students and parents. The district has a school-to-parent communication system, Blackboard Connect. The District uses this system extensively to communicate with parents regarding issues at the site, school events, student absences and other types of communication. This communication is well received by parents. Communication is sent through this system via voice messages, emails, and text messages.

**Goal 3j.1: Technology resources will be used to improve two-way communication between home and school.**

Objective 3j.1.1: By 2017 50% of parents will have a Parent Portal account. The families and students (TK-12) will have access to the Student Information System through appropriate portals. Two-way communication will be available via email, telephone, blogs, and other means to 100% of stakeholders.

Benchmarks:
   • Year 1: Year one, 25% of parents will have a Parent Portal account.
   • Year 2: Year two, 35% of parents will have a Parent Portal account.
   • Year 3: Year three, 50% of parents will have a Parent Portal account.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Promote access of IC to parents through Back-to-School Nights, Open House, Parent Conferences and other parent communication. | Ongoing | Director of Information Technology, Site Administrators, Classroom Teachers | Number of Infinite Campus Account Requests | Number of Infinite Campus accounts, Usage Report from Infinite Campus |

| | | | | |
|---|---|---|---|---|
| Train, as needed, parents to use Infinite Campus Parent Portal | Ongoing | Director of Information Technology | Parent Requests | Parent Requests |

3k. Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks and planned implementation activities including roles and responsibilities.

This District has developed a formal process for monitoring the Curricular Component goals, objectives, benchmarks and planned implementation activities including roles and responsibilities.

The first phase of the monitoring process includes assigning roles and responsibilities to key stakeholders including district and site administrators, technology committee members, and key educators. This process will also include an analysis of the results of the evaluation instruments identified for each objective. The preliminary monitoring plan includes roles and responsibilities for key administrative staff that include:

- Director of Technology & Principals at School sites should have adequate computers for all students

- Director of Technology – Maintain the SIS system at all sites, support the SIS portal for Parents and Students, and ensure proper software and hardware is available for teachers and students

- Director of Technology and Assistant Superintendent of Education Services – provide access to teachers and other staff as necessary for student performance data. Develop strategies for teachers to use performance data for decisions in lesson development and support these strategies with professional development delivered by the Curriculum Coaches

- Assistant Superintendent of Student Support Services – monitor school & district websites to insure staff email, addresses, school calendars and other school information is current

- Assistant Superintendent of Educational Services or designee – Include technology professional development into the district comprehensive staff development program delivered by Curriculum Coaches and others

- Director of Curriculum and Instruction – Implement the student performance and analysis system and coordinate district wide staff development needed for teachers and other staff to use the data effectively

By the end of each school year, district teachers will take both the technology satisfaction survey and the technology skills survey. The survey will query teachers regarding curriculum projects, use of grade level appropriate software, standard productivity software, and computer literacy for

students, information literacy, and the appropriateness of online accessibility. The District's Curriculum Coaches, Director of Curriculum & Instruction, Director of Technology, and the Assistant Superintendent of Educational Services will evaluate the results and develop strategies to meet the changing needs of teachers and staff. Assistant Superintendent of Educational Services or designee will gather assessment scores to monitor the progress toward meeting the standards.

These processes will be ongoing. The results of the continual monitoring are included in the annual evaluation of the District's strategic plan progress. The results of this evaluation will be reported annually to the Board of Trustees.

4a. Summary of teachers' and administrators' current technology skills and needs for professional development.

Ceres Unified teachers and administrators are able to use productivity software and email effectively. All teachers and administrators use Infinite Campus (SIS) to take attendance, post grades, and review student data.   Teachers in grades 3-12 use the Lesson Planner module of Infinite Campus for assignments that are posted on the Parent Portal.

All classrooms have digital display devices that are used on a regular basis. Based on results from staff surveys (Bright Bytes), only 25% of teachers use digital media, collaboration tools and online resources effectively in classroom instruction.

A professional development need exists with certificated staff, teachers, and administrators in the effective use of data analysis tools, digital media, collaboration tools, and online resources. A minimal number of teachers are comfortable and regularly use these types of tools. This will be the focus of professional development included in this three year plan.

4b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (sections 3d through 3j) of the plan.

**Goal 4b.1: Staff will have the opportunity to participate in sustained and on-going professional development to acquire knowledge of a variety of digital tools, Internet, digital media and information resources necessary for students to collaborate, produce, publish, and solve problems.**

Objective 4b.1.1: By 2017, 60% of staff will participate in sustained and on-going professional development to acquire knowledge of a variety of digital tools, Internet, digital media and information resources necessary for students to collaborate, produce, publish, and solve problems.

Benchmarks:
* Year 1: Year 1, 20% staff will participate in sustained and on-going professional development to acquire knowledge of a variety of digital tools, Internet, digital media and information resources necessary for students to collaborate, produce, publish, and solve problems.

- Year 2: Year 2, 40% staff will participate in sustained and on-going professional development to acquire knowledge of a variety of digital tools, Internet, digital media and information resources necessary for students to collaborate, produce, publish, and solve problems.
- Year 3: Year 3, 60% staff will participate in sustained and on-going professional development to acquire knowledge of a variety of digital tools, Internet, digital media and information resources necessary for students to collaborate, produce, publish, and solve problems.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Staff will learn how to use the applications in Google Applications in Education, including Google Drive. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | PD Enrollment Rosters, Classroom Walkthroughs, Classroom Informal Observations, Technology Survey | Sign in sheets, Technology Survey |
| Staff will learn how to utilize the Google Applications in Education, including Google Drive, to collaborate, produce, and publish products. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | PD Enrollment Rosters, Classroom Walkthroughs, Classroom Informal Observations, Technology Survey | Sample Products and Publications, Technology Survey |
| Staff will learn to research information using digital resources, including the Internet, and identify credible sources. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | PD Enrollment Rosters, Classroom Walkthroughs, Classroom Informal Observations, Technology Survey | Sample Products and Publications, Technology Survey |
| Staff will learn how to include visual displays, videos, audio clips and other digital media in documents. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | PD Enrollment Rosters, Classroom Walkthroughs, Classroom Informal Observations, Technology Survey | Sample Products and Publications, Technology Survey |
| Staff will learn how to use spreadsheets, graphing calculators and other mathematical digital tools. | Ongoing | Director of Information Technology, Site and District Administrators, Instructional Coaches, Classroom Teachers | PD Enrollment Rosters, Classroom Walkthroughs, Classroom Informal Observations, Technology Survey | Sample Products and Publications, Technology Survey |

Objective 4b.1.2: By 2017, all teachers, classified staff, and administrators will be provided training and information focusing on internet safety, copyright, fair use, student assessment and parental communication.

Benchmarks:

- Year 1: By year 1, 100% of all teachers, classified staff, and administrators will be provided training and information focusing on internet safety, copyright, fair use, student assessment and parental communication.
- Year 2: By year 2, 100% of all teachers, classified staff, and administrators will be provided training and information focusing on internet safety, copyright, fair use, student assessment and parental communication.
- Year 3: By year 3, 100% of all teachers, classified staff, and administrators will be provided training and information focusing on internet safety, copyright, fair use, student assessment and parental communication.

| Implementation Plan | | | | |
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| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Provide training and information focusing on internet safety, copyright, fair use, student assessment and parental communication for teachers, classified staff, and administrators. | Annually - August | Site and district administrators | Sign-in sheet verification, Technology survey | Digital schools print out, Technology survey |

4c. Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned activities including roles and responsibilities.

A survey (Bright Bytes) will be administered annually in the spring to teachers and students to measure foundational technology skills, digital media skills, digital citizenship as well as instructional technology use in the classroom. Data from these surveys will be reviewed and discussed with district and site administrators and the Ceres Technology Advisory Committee (CTAC). CTAC meets four times per year.   Evaluations from professional development sessions will also be collected and reviewed by presenters, Director of Technology Services and the Educational Services Division regularly during the school year. Sign-in sheets will also be archived.

> 5a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components of the plan.

**Existing Hardware:** Ceres Unified continually monitors and evaluates the current levels of hardware provided to the students a staff of the district. The District currently has 3,751 total desktops in classrooms and offices at nineteen school sites. This includes a mix of Windows 7 and Windows XP. Of those, 54% are considered to be obsolete by the state standard – of more than four years old. Ceres Unified has 1,734 computers that are four years old or newer. It is estimated that within the next two to three years over 2,176 desktop computers will need to be replaced district wide to meet the state criteria for up-to-date computers available for student use.

**Existing Internet Access:** Ceres Unified School District's commitment to technology reaches above and beyond hardware. Providing connectivity to the District's network, the Student Information System and access to student performance data, is also a high priority for the district. Teachers especially must have the ability to access student data to effectively target instruction for students.

The Ceres Unified School District Technology Infrastructure Standards provide the essential stepping stones for meeting the technology needs of the district.

Revised and presented to the Board of Trustees annually in May

- Standard One: Classroom Connectivity (100% Complete)
  Every classroom will be connected to the District network and the internet, at no less than a 100 MB connection. This will be achieved through Category 5 or better cable to the intermediate distribution frame, fiber optic to the main distribution frame, and a 1.0 GB wide area network from the school to the District Office.

- Standard Two: Teacher Access to Student Information System (100% Complete)
  Every classroom will have teacher access to the student information system for the purpose of looking up student data.

- Standard Three: Access to Student Performance Data (100% Complete)
  Every teacher will have access to the student performance data for students in their class. This will be through DataWise Measures for elementary schools and DataWise Measures for secondary schools.

- Standard Four: Data Projectors (100% Complete)
  Every classroom will have electronic images projected through a mounted data projector that is connected to the teacher's classroom computer. (Replaces TVs.)

- Standard Five: On Line Grades and Attendance (100% Complete)
  Every teacher will submit attendance and grades online.

- Standard Six: Telephones on the Network with Integrated Voice and Email (100% Complete)
  Every classroom will have an IP addressable telephone featuring integrated voice and email.

- Standard Seven: Student Connectivity (100% Complete)
  Students will have access to Internet ready connections at the bandwidth described in Standard One. This number and configuration of connections will be appropriate to school, grade level and subject matter needs.

- Standard Eight: Interactive Display Technology (87% Complete)
  Every classroom will have an interactive display device for the presentation of information allowing for real time editing and feedback. This may be achieved through Smart Boards or Inter Write Pads, (replaces overhead projectors).

- Standard Nine: Parental Access (100% Complete)
  Every parent will have access to their student's classroom information through a secure Internet site.

- Standard Ten: Public Address and Bell Systems on the Network (77% Complete)
  Every classroom will have an IP addressable public address and bell system that can be programmed from a central location.

- Standard Eleven: Video Security on the Network (75% Complete)
  Every classroom will be protected externally by an IP addressable security camera. This may be achieved by one camera covering multiple classrooms

- Standard Twelve: Wireless Connectivity (5% Complete)
  Every school campus will have wireless connectivity. This will be accomplished by implementing a system that provides for coverage and density.

All teachers have access to student performance data through a district wide database. This database enables teachers to access student assessment scores in an effort to guide instruction. However, most teachers are still unable to use this system effectively. This is identified as a continued area of need.

The District has a 1GBps (Gigabyte per second) Wide Area Network connecting all schools, except one where access is 100MBps. All schools connect to the district office ISP through the shared gigabyte connection. Current Internet access is provided by a 200MBps connection. With the increased focus on "cloud" based applications and resources the need for reliability is paramount.

Classroom connectivity and access to the Internet for all classrooms has been a major focus and continues to be maintained. In addition, every classroom has access to the district's Student Information System (SIS) and student performance data. District wide, teachers use the SIS to take attendance, and use the grade book components which are mandatory for Grades TK to 12. This information is available through the Parent Portal access.

**Existing Electronic Learning Resources:** Ceres Unified is focused on providing a rich digital media environment to students. In this effort, data projectors and stereo speakers have been installed in all classrooms. Discovery Streaming is provided district wide. This service provides video clips that are linked to state standards in every core subject area and every grade level. Many teachers use this resource well. However, additional professional development work remains, to insure that this use supports standards based instruction. In addition, more resources need to be provided including, resources for student instruction as well as digital media support for teachers in the form of exemplar lessons that illustrate effective strategies. In addition, Waterford, Study Island, Education City, I-ready, iXL math, online programs are used by students in grades TK - 6 for supplemental instruction and student intervention.

**Existing Technical Support:** The District has a Director of Technology, a network administrator, a data analyst for database support, and 7 FTE computer specialists for general technology support. This staff supports more than 3,700 desktop computers and notebooks. They also support administrative users, support personnel, teacher's use of classroom and grade book features. The staff also supports a variety of district managed online applications, such as DataWise Measures student performance analysis software for student information, Sharpschool hosted websites, Digital Store Front used by teachers and staff for printed instructional materials ordering.

The District supports an extremely large variety of software and hardware. Below is a list of the major support areas.

• Destiny – district wide library system

• Meals Plus – district wide lunch system to keep record of student accounts

• Infinite Campus - Student Information System

• Pre ID – 3 STAR, 4 CaHSEE,

• PE, 2 CELDT

• CalPADS – state identification

• Data cleanup

• Import scores into system from STAR, SATs, CaHSEE, CELDT

• Encryption software to receive SAT scores directly

• DataWise Measures – student assessment database with reporting for educators

- Scores and scanning for local assessments

- Various finance databases including inventory

- Maintenance Help Desk

- Technology Help Desk

- Digital Storefront - printing ordering and billing system

- Connect Ed - parent notification system

- Valcom, Singlewire – IP intercom, notification, and bell systems

- IP Phones and Voicemail – over 1,400 to date

- IP Cameras – over 100 to date

- Video and photography support - using a variety of hardware and software

- Projectors – about 738 to date

- InterWrite School Pads

- Sound Systems

- Wireless systems

- Over 40 servers

- 19 sites with network hardware about 240 switches

- UPS – Battery back‑ups about 100 district – wide

- Exchange Email – with 1600 mailboxes

- Microsoft Office Suite - 2007 to 2013 editions

- Creative Suite II

- InDesign page layout software – yearbooks, posters, newsletter

- Photoshop

- Illustrator

- Acrobat

- Premiere

- AVG – antivirus software

- Websense - web and SPAM filter software

- Kaseya – desktop computer management software

- Accelerated Reader & STAR

- Waterford – reading support

- MP3 – AP Language testing

- Audacity

- AutoSkill Math Academy

- AutoCAD

- Adobe Audition

- Blue Bear – Student Store Accounting system

- Cyber Ed Science software

- Cyber High

- Mavis Beacon

- Harcourt Math

- Exam View

- Interactive Physics

- Moodle - learning management system

- Digital Schools installation

- ROP software

- Print To Mail for report cards at sites

- Websites – district wide

- Contribute client software

- Dreamweaver editing software

- Poster printing – poster and photo quality

- Support of district publications developed by users

- Elementary Yearbooks

- CVH & CHS digital signs

**Hardware Needed:** In grades 3 - 12, a mobile type device with a keyboard and minimum screen size of 10" is needed. In grades TK - 2, a tablet device with at least a 7" screen is needed. All classrooms will need a digital display device provided by a digital projector of flat panel TV. In addition, a document camera or equivalent device will be needed to display objects and published text. All teachers will be equipped with a tablet device to enhance mobility and engagement during classroom instruction.

Network infrastructure will be added to support classroom device connectivity. This includes upgraded Wide Area Network (WAN) and Local Areas Network (LAN) networking to support bandwidth at 10GB and 1GB. At least one wireless access point per classroom will also be needed. Additional virtual server technology may need to be added to support digital media distribution, as well.

**Electronic Learning Resources Needed:** Students will utilize Google Applications to communicate, collaborate, calculate, and present. They will work on the same project/document simultaneously other online application such as drop box, Evernote; PPT to publish work. Google Docs and Microsoft Office Suite will assist in the production and publishing of writing. Use of blogs, social media will also be used to interact with peers. Presentations (discourse); charts, graphs, presentations, pictures, video, scientific/Soc. Studies demonstrations; simulation programs will also be utilized.

Students will use technology tools to apply mathematics in solving problems arising in everyday life, school and society including utilizing diagrams, spreadsheets and other technology to solve real world situations. Students will also explore and deepen their understanding of mathematical concepts by using technology to graph functions, including those expressed symbolically, make tables of values or find successive approximations, to illustrate the effects on the graph using technology, to compute and interpret the correlation coefficient of a linear fit.

**Networking and Telecommunications Infrastructure Needed:** Network infrastructure and bandwidth will be upgraded to support the growing technology demand and innovations in educational practices and meeting Common Core State Standards. Wireless access is currently being implemented district wide to support education initiatives. Web content resources, digital media management, and distance learning capabilities will be added to enhance the staff instruction and student learning environment.

The District is planning to leverage virtual computing in both server infrastructure and personal computing. With the addition of virtual computing and wireless access, the demand on the school network infrastructure will increase by at least 50%. Server infrastructure is also being

virtualized to minimize "sprawl" of hardware and to better utilize computing resources. The District core data center will be expanded to accommodate this growth. At least 75% of server services will be for VoIP operation, email, web, print, and DHCP/DNS.

Over the next three years, CUSD will replace all servers, switches and or other parts of the computer infrastructure as they reach end-of-life. This will coincide with established cycles of replacement of computers, routers, switches and other network peripherals. Computers are replaced based on District guidelines, which is usually after five years. It is expected that most of our school site technology needs will continue to grow and will require additional bandwidth to support additional content provided over the network including communication services. To accommodate this growth with additional capacity, we may increase bandwidth to school sites proceeding network infrastructure upgrades.

CUSD is currently connected to Charter for primary Internet connectivity and managed fiber for WAN connectivity. It is the goal of the District to eventually connect to the K12HSN for Internet services. The K12HSN will provide additional content and resources that are valuable to the education of the District students. This will likely be accomplished by connecting directly or through the Stanislaus County Office of Education at a minimum of 100MBps.

Servers including Domain Controllers, Email Servers, Backup Servers, File Servers, and Web Servers are also integral parts of providing content and services to our schools and will be a part of our replacement plan. In addition, routers that currently are the backbone of the network will be replaced. High speed switches will be installed to meet the needs of the network and supported sites to leverage future technology.

We will add virtual servers, as needed, with a focus on the student information systems, the instructional content and web based applications. Innovations in technology will influence CUSD's method to deliver content. Many of the services for student information systems, testing, assessment and benchmark testing based on state standards will be delivered in this fashion.

CUSD will support and implement wireless connectivity district wide. CUSD will install the latest wireless standards (802.x) and connections with access points throughout our classrooms and administrative offices. The goal of the District is to provide a ubiquitous environment to allow for "bring your own device" and District supported mobile device learning models.

Uninterruptible Power Supplies (UPS) are also necessary in the maintenance and consistent service of the network. Availability is becoming more important as we become reliant on technology and the information systems it provides. It is also a crucial component in supporting VoIP services.

Expected growth will be supported with dedicated fiber optic circuits, dark fiber circuits, microwave wireless connectivity, and channelized circuits or with a new technology or service based on cost and quality of service factors. CUSD will support technologies that will lower our monthly costs and provide reliable service and bandwidth in order to meet the goals and objectives of the ETP. CUSD Technology Services expect that school connectivity and increased bandwidth to our sites will be the major focus over the next 3 years.

**Physical Plant Modifications Needed:** The district has worked pro-actively in ensuring the Physical Plant meets current and future technology needs. However, there will be minor upgrades that will need to occur over the next three years to complete the Ed-Tech plan. For mobile devices, "smart carts" will be utilized to adequate charge and secure mobile student devices not utilized in a "take home" program. There will be a need to update electrical circuits in a few classrooms to support this and some ceiling mounted projectors. Power stations will need to be added in classrooms to charge, power mobile devices on an as needed basis. This will exist in 5% of classrooms or less. The districts "hub" of Internet and networking services will also need cooling and power upgrades to support new infrastructure.

**Technical Support Needed:** The scope of Technology Services continues to grow and is becoming more diverse and complex. We are on the verge of an Instructional Technology explosion in the classroom driven by Common Core State Standards. Therefore, it is critical that we plan proactively and address the staffing needs to transition this instructional transformation smoothly. There are four major areas where support is needed, including: Instructional Technology, Computing Systems (no longer just desktop computers), Network/Communication Systems, and Software/Data Systems. The following technical support is needed over the next three years to support the vision of one device per student (1:1), online learning resources such as Google Apps for Education, and effective professional development for technology integration in the regular day instructional program.

**Instructional Technology Coordinator**
Core function: Implements the District's educational plan to integrate technology into the classroom, curriculum and teaching practices. Provides overall leadership in developing strategies to deliver technology solutions for teaching and learning. Provides staff development and technical assistance to teachers and administrators in selecting and placing technology resources in the classroom.   Assesses emerging technologies and develops strategies for their use in the classroom.

**Education Technology Specialist (2-3 are needed)**
Core function: Designs and delivers professional development and provides ongoing training and technical assistance to classroom teachers on integrating technology into the curriculum. Provides expert technology support and training to instructional leaders in addition to technology and training for support staff.

**Technology Services Manager**
Core function: Directs, develops, plans, organizes, leads, and monitors all aspects of IT operations. Assists Director (CTO) with project management, staff supervision, and staff evaluations. Ensures IT services run smoothly and customer service goals are being achieved. Manages tech request work flow, technology ordering, and provides training to department staff.

**Network Analyst**
Core function: Provides network/server infrastructure, communication system maintenance and support in conjunction with the Network Admin. Critical to ensuring network/communication systems are 99.9% available to support students, teachers, and staff technology access. Provides high level support of computer systems, network systems, and online applications.


**Application/Data Specialist**
Core function: Provides dedicated support of software/data systems in conjunction with Database Admin. Provides basic programing, customization of applications, and data entry assistance to support CALPADS. Critical to achieving effective use of district core applications such as IC, Google Apps, Sharpschool, DSF, Meals Plus, DataWise, Destiny, etc. May also provide training on software programs.


**Help Desk Technician**
Core function: Serves as a resource for users of the district's IT systems; develops IT documentation materials; maintains user rights and responsibilities to various applications. Provides basic technical troubleshooting and remote support.


**Network Technician**
Core function: Provides low level support of network infrastructure. To consist of repairs to network equipment including UPS battery installation, network drop testing/repair, and projector repairs/installations. May also maintain/support IP paging systems, security cameras, and IP phones.


**Programmer/Analyst**
Core function: Designs and implements software systems to facilitate the computerized collection, management, manipulation and distribution of data used for decision-making and in the daily operation of schools and departments; serves as a technical resource to others.

In addition to new positions, there is a need to provide adequate support at school sites for the upcoming digital renaissance. The District's plan is to group 6-7 school sites together and assign a tech support team to each group of schools. Each team will be comprised of at least (1) Technology Specialist II and (2) Technology Specialist I that will support the group of schools. This model will provide a diverse skill set, adequate coverage, and is scalable as more technology is added into the regular day instructional program.

5c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components as identified in Section 5b.

With the adoption of Common Core Standards going forward, technology infrastructure will become even more important. Technology access to online digital media, collaboration tools, and student presentations will grow immensely. All students will need access to devices to complete their work in this new era. The devices will likely be mobile which will require a robust network infrastructure and adequate technical support staff.

**Year 1 Benchmark:** Hardware: 25% of student's grades TK-2, 3-12 will be provided with notebook or tablet device and 25% of teachers will be provided with tablets and classroom technology referenced in the tech plan. Infrastructure: 50% of classrooms will receive wireless access, high speed network equipment, information, data and digital media storage. Learning resources: 25% of student's grades TK-2, 3-12 and 25% of teachers will be provided productivity, collaboration tools, electronic books, and digital media access including professional development for teachers. Technical support: 50% of instructional technology, hardware, software, and network support staff needed will be provided.

| Recommended Actions/Activities | Timeline | Person(s) Responsible |
|---|---|---|
| Evaluate, order, and install/setup classroom hardware and notebooks/tablets. | July 2014 to June 2015 | Director of IT, Ed Services Staff, School Site Staff, Maintenance Support Staff, Technology Support Staff |
| Design, order, plan and install infrastructure hardware. | July 2014 to June 2015 | Director of IT, Director of M&O, School Site Staff, Technology Support Staff |
| Evaluate, implement learning resources and provide professional development. | July 2014 to June 2015 | Director of IT, Ed Services Staff, School Site Staff, Technology Support Staff |
| Hire technical support staff | July 2014 to June 2015 | Personnel, Director of IT, Ed Services Staff |

**Year 2 Benchmark:** Hardware: 50% of student's grades TK-2, 3-12 will be provided with notebook or tablet device and 50% of teachers will be provided with tablets and classroom technology referenced in the tech plan. Infrastructure: 75% of classrooms will receive wireless access, high speed network equipment, information, data and digital media storage. Learning resources: 50% of student's grades TK-2, 3-12 and 50% of teachers will be provided productivity, collaboration tools, electronic books, and digital media access including professional development for teachers. Technical support: 75% of instructional technology, hardware, software, and network support staff needed will be provided.

| Recommended Actions/Activities | Timeline | Person(s) Responsible |
|---|---|---|
| Order, and install/setup classroom hardware and notebooks/tablets. | July 2015 to June 2016 | Director of IT, Ed Services Staff, School Site Staff, Maintenance Support Staff, Technology Support Staff |
| Order, plan and install additional infrastructure hardware. | July 2015 to June 2016 | Director of IT, Director of M&O, School Site Staff, Technology Support Staff |

| Implement learning resources and provide professional development. | July 2015 to June 2016 | Director of IT, Ed Services Staff, School Site Staff, Technology Support Staff |
|---|---|---|
| Hire technical support staff | July 2015 to June 2016 | Personnel, Director of IT, Ed Services Staff |

**Year 3 Benchmark:** Hardware: 75% of student's grades TK-2, 3-12 will be provided with notebook or tablet device and 75% of teachers will be provided with tablets and classroom technology referenced in the tech plan. Infrastructure: 100% of classrooms will receive wireless access, high speed network equipment, information, data and digital media storage. Learning resources: 75% of student's grades TK-2, 3-12 and 75% of teachers will be provided productivity, collaboration tools, electronic books, and digital media access including professional development for teachers. Technical support: 100% of instructional technology, hardware, software, and network support staff needed will be provided.

| Recommended Actions/Activities | Timeline | Person(s) Responsible |
|---|---|---|
| Order, setup remaining classroom and notebooks/tablets. | July 2016 to January 2017 | Director of IT, Ed Services Staff, School Site Staff, Maintenance Support Staff, Technology Support Staff |
| Order, plan and install remaining infrastructure hardware. | July 2016 to January 2017 | Director of IT, Ed Services Staff, School Site Staff, Maintenance Support Staff, Technology Support Staff |
| Implement additional learning resources and provide professional development. | July 2016 to January 2017 | Director of IT, Ed Services Staff, School Site Staff, Technology Support Staff |
| Hire remaining technical support staff. | July 2016 to January 2017 | Personnel, Director of IT, Ed Services Staff |

5d. Describe the process that will be used to monitor Section 5b and the annual benchmarks and timeline of activities including roles and responsibilities.

In addition to the principal, the district wide technology committee will annually review progress toward the benchmarks listed in 5C for each school year. The Director of Information Technology will assess the progress of each school and provide the district wide technology committee with the finished checklist. After reviewing the checklist, modifications and adjustments will be made to the benchmarks and prioritized items. Additionally, the Assistant Superintendent of Business, along with the Director of Information Technology reports technology progress toward benchmarks to the Board of Trustees, annually. This annual review process provides data for decisions in the following school year. Budgets and programs are developed to address areas of greatest need. Specific site needs are communicated to site Principals by the Assistant Superintendent of Business during both the spring a fall meetings that Principals have with Cabinet.

## 6. Funding and Budget

6a.  List of established and potential funding sources.

**Established Funding Sources:** Title 1

Erate

LCFF

Other federal and state funding as available

General Fund as Available

**Potential Funding Sources:** Common Core Implementation

EdTech K12 General Purpose Voucher

EdTech K12 Software Voucher

LCFF

Title 1

Erate

Other federal and state funding as available

General Fund as Available

6b.  Estimate annual implementation costs for the term of the plan.

| Item Description | Year 1 | Year 2 | Year 3 | Funding Source Including E-Rate |
|---|---|---|---|---|
| **1000-1999 Certificated Salaries** | | | | |
| Education technology support staff (new) | $65,000 | $130,000 | $200,000 | Common Core Implementation, LCAP |
| **2000-2999 Classified Salaries** | | | | |

| | | | | |
|---|---|---|---|---|
| Technology services support staff (new) | $80,000 | $160,000 | $200,000 | General, LCAP |
| Technology services support staff (existing) | $500,000 | $510,000 | $520,000 | General |

**3000-3999 Employee Benefits**

| | | | | |
|---|---|---|---|---|
| Employee benefits (new and existing) | $64,500 | $80,000 | $92,000 | General, LCAP |

**4000-4999 Materials and Supplies**

| | | | | |
|---|---|---|---|---|
| Student devices (notebooks or tablets) | $1,400,000 | $1,400,000 | $1,400,000 | Common Core Implementation, LCAP, General Fund |
| Teacher devices (laptops, tablets) | $100,000 | $100,000 | $100,000 | Common Core Implementation, LCAP, Tech Block Grant, K-12 Voucher |
| Classroom technology | $120,000 | $120,000 | $120,000 | Common Core Implementation, LCAP, Tech Block Grant, K-12 Voucher |
| Electronic learning resources | $210,000 | $210,000 | $210,000 | Common Core Implementation, LCAP, K-12 Voucher |
| Microsoft Desktop and Office software | $46,000 | $46,000 | $46,000 | MAA, General |
| Device management and security software | $40,000 | $0 | $0 | General (Tech) |
| Network infrastructure enhancements (software) | $100,000 | $0 | $0 | General (Tech) |

**5000-5999 Other Services and Operating Expenses**

| | | | | |
|---|---|---|---|---|
| School to home communication services | $20,000 | $20,000 | $20,000 | MAA, General |
| Network infrastructure implementation (support services) | $150,000 | $75,000 | $35,000 | E-rate, General (Tech) |
| Internet bandwidth upgrade | $0 | $48,000 | $48,000 | E-rate |
| Instructional staff professional development | $80,000 | $80,000 | $80,000 | Common Core Implementation, LCAP |
| Technology support staff professional development | $12,000 | $12,000 | $12,000 | General (Tech) |

**6000-6999 Equipment**

| | | | | |
|---|---|---|---|---|
| Digital media system | $160,000 | $0 | $80,000 | E-rate |
| Network infrastructure upgrades | $4,200,000 | $0 | $800,000 | E-rate |
| Wireless access (hardware) | $480,000 | $0 | $520,000 | E-rate |
| Web filter/content management upgrade | $60,000 | $0 | $0 | General (Tech) |
| Totals: | $7,887,500 | $2,991,000 | $4,483,000 | |

6c. Describe the district's replacement policy for obsolete equipment.


The District is recommending a five year replacement rotation for desktop computers and a three to four year rotation for laptops, tablets, and other mobile devices. This will result in replacements of 20% to 30% of the devices at each site, each year. Funding for staff, teacher computers and devices will come from site funds. Funding for student devices replacement will come from LCAP and other district resources.


6d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.


Funding for technology will be evaluated annually by CTAC and the Director of Technology. Funding will be provided to technology on a priority, based on need each year and available funds. The District has been very successful at securing competitive grants for technology, as well as other funds that help to support technology for students. In addition, the District actively participates in the E-rate discount program for services and equipment. The Director of Technology has primary responsibility for monitoring budgets and technology purchases district-wide. The Director of Technology is responsible to insure that district and site funds are spent on the best, cost effective solutions possible.

# 7. Monitoring and Evaluation

> 7a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.

The District evaluates progress toward the Strategic Plan technology goals each year. The District also conducts a technology satisfaction survey of all staff members each year. The District also requires all certificated staff to complete the staff training needs survey. The results from each of these evaluations are shared with stakeholders. All site and department leaders are included and course correction activities are coordinated with the group.

The impact of technology for staff and students will be evaluated with the following instruments:

• Student formative and summative assessment data

• Reports from Infinite Campus of student and parent use of the Infinite Campus Parent Portal

• Technology skills survey administered to all certificated staff, including teachers and administrators

• Technology Satisfaction Survey administered to all certificated staff, including teachers and administrators

• Annual report to California Department of Education regarding student-to-computer ratio and classroom connections to the Internet

• Annual report to the CUSD Board of Trustees regarding the progress toward achieving the technology standards established by the District

The District's technology goals include:

**Standard One: Classroom Connectivity**

Every classroom will be connected to the District network and the Internet at no less than a 100 Mb connection. This will be achieved through Category 5 or better cable to the intermediate distribution frame, fiber optic to the main distribution frame, and a 1.0 GB wide area network from the school to the District Office.

**Standard Two: Teacher Access to Student Information System**

Every classroom will have teacher access to the student information system for the purpose of looking up student data.

**Standard Three: Access to Student Performance Data**

Every teacher will have access to the student performance data for students in their class. This will be accomplished through Measures for elementary and secondary schools.

**Standard Four: Data Projectors**

Every classroom will have electronic images projected through a mounted data projector that is connected to the teacher's classroom computer. (Replaces TVs.)

**Standard Five: On Line Grades and Attendance**

Every teacher will submit attendance and grades online.

**Standard Six: Telephones on the Network with Integrated Voice and Email**

Every classroom will have an IP addressable telephone featuring integrated voice and email.

**Standard Seven: Student Connectivity**

Students will have access to Internet ready connections at the bandwidth described in Standard One. This number and configuration of connections will be appropriate to school, grade level and subject matter needs.

**Standard Eight: Interactive Display Technology**

Every classroom will have an interactive display device for the presentation of information allowing for real time editing and feedback. This may be achieved through Smart Boards or Inter Write Pads. (Replaces Overheads.)

**Standard Nine: Parental Access**

Every parent will have access to their student's classroom information through a secure Internet site.

**Standard Ten: Public Address and Bell Systems on the Network**

Every classroom will have an IP addressable public address and bell system that can be programmed from a central location.

**Standard Eleven: Video Security on the Network**

Secondary classrooms will be protected externally by an IP addressable security camera. This may be achieved by one camera covering multiple classrooms.

**Standard Twelve: Wireless Connectivity**

Every school campus will have wireless connectivity. This will be accomplished by implementing a system that provides for coverage and density. Each of the proceeding goals is in support of using technology to enhance teaching and learning for all.

A survey (Bright Bytes) will be administered annually in the spring to measure foundational technology and digital media skills, and digital citizenship among other areas for teachers and students. Data from these surveys will be reviewed and discussed with district and site administrators and the Ceres Technology Advisory Committee (CTAC). CTAC meets four times each year. Data resulting from the surveys will be reviewed to determine the level of progress made towards the goals and objectives of the technology plan. Recommendations will be made for any modifications to the objectives and activities for future years. CTAC will determine if the recommendations for modifications warrant actual changes to the Plan. Evaluations from professional development sessions will also be collected and reviewed by presenters, Director of Technology Services and the Educational Services division regularly during the school year. Sign in sheets will also be archived. Additionally, given that Technology is included as a priority in the District's Strategic Plan, progress toward the goals and objectives related to technology as a tool to support teaching and learning is reported to the Board of Trustees on annual basis.

Data gathered from the annual Bright Bytes survey will be reviewed and discussed with district and site administrators and the Ceres Technology Advisory Committee (CTAC). Data resulting from the surveys will be reviewed to determine the level of progress made towards the goals and objectives of the technology plan. Recommendations will be made for any modifications to the objectives and activities for future years. CTAC will determine if the recommendations for modifications warrant actual changes to the Plan. Given that Technology is included as a priority in the District's Strategic Plan, progress toward the goals and objectives related to technology as a tool to support teaching and learning is reported to the Board of Trustees on annual basis.

Technology Plan progress will be reported annually to the following stakeholder groups:
- Ceres Technology Advisory Committee (CTAC)
- Ceres Community Collaborative
- Elementary Study Session with site administrators
- Secondary Study Session with site administrators
- Curriculum and Instruction Committee
- District Advisory Committee (DAC)
- Ceres Board of Trustees
- ELAC and DLAC
- Publication on district web site

**Annual Review of Goals Year One:**


**Annual Review of Goals Year Two:**


**Annual Review of Goals Year Three:**

## 8. Collaborative Strategies with Adult Literacy Providers

The Ceres Unified School District (CUSD), is comprised of 12 elementary schools, 3 junior highs, 2 high schools, 1 continuation high school, 1 alternative high school and 3 charter schools. As the school year began in August 2013, a total of 12,742 students were enrolled in CUSD. Ceres is located in the heart of the agricultural belt and many adults work as seasonal farm laborers or hold unskilled jobs. Additionally, the ethnic diversity of CUSD is reflected in the 2013 enrollment as 71% Hispanic, 19% White, and 10 % representing all other ethnicities.

CUSD recognized the need to establish a Community Collaborative to address the ongoing issues of our students. The ultimate purpose of the collaborative is to support and empower families to be responsible for meeting the needs of children by applying collective energy, talent, and ideas of community, neighbors, extended family and friends. The Collaborative is composed of a wide cross section of service providers, school personnel, business professionals, government representatives, religious leaders, parents, and community members. Meetings of the Collaborative occur each quarter with an average of 50 or more regular attendees. These meetings are designed to study educational issues of students and parents. From this Collaborative many highly effective and diversified parent education programs have been facilitated and targeted to the adults of the Ceres Community.

Other Collaborative members, including the Parent Institute for Quality Education, offer career development and language development classes for parents. The Stanislaus Literacy Center provides one-on-one and small group tutoring for adults who need assistance with reading and the Migrant Education program provides funding for tutors and teachers to work with migrant children in the Ceres Unified School District.

The Collaborative regularly maintains online collaboration with other agencies to support education. The Collaborative consistently seeks grants and other funding to provide up-to- date technology services to the Ceres community. Collaborative members regularly make presentations utilizing technology to provide content instruction for adult learners. For example, most Collaborative members, such as the Parent Institute for Quality Education (PIQE) regularly build interactive lessons around video presentations. Other Collaborative members provide technology integration into adult education through workshops, career resource presentations and literacy activities.

Ceres Adult School currently provides literacy programs to the community. The General Education Diploma (GED) classes, in addition to English as a Second Language (ESL) classes, are held at various sites throughout the district. In addition, Ceres Adult School also offers a computer literacy course for anyone seeking to improve or acquire basic computer skills. This course is offered in the computer lab in the Ceres Adult School complex. Students receive hands-on instruction in the computer lab in order to fully experience the content of the courses.

Current funding sources include the Adult Education program, and the District Technology Department which provides equipment and additional technical support to operate a computer lab for parent/student use.

## 9. Effective, Researched-Based Methods and Strategies

9a.  Summarize the relevant research and describe how it supports the plans curricular and professional development goals.

The research cited below was used in the preparation of this plan and how the district has used and will use the research findings in the development and implementation of the plan. The research was selected for its focus on strategies and methods to integrate technology in order to improve learning, teaching, and management.

### Curriculum

The CUSD Technology Plan list the following curricular objectives:

- Students will use technology, including the Internet, to produce and publish writing, and to interact and collaborate with others in all content areas.
- Students will make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
- Students will use a variety of technology to apply mathematics in solving problems arising in everyday life, school and society.
- Students will use technological tools to explore and deepen the understanding of mathematical concepts.

The areas of focus found in this plan are validated by research. Project Tomorrow's Study entitled*, **The New Digital Advance Team&mdash;America's K–12 Students Leading the Way to Transforming Learning with 21st Century Technology Tools (2008) reports, "**Technology has enabled students to be uber-communicators, and more participatory learners. They develop strong teamwork skills (highly valued by employers as one of the most critical 21st century work skills) and view the process of content development as a key part of the new learning process&mdash; for many students the process of developing that content is as valuable, or more valuable, than the end result. Thus, the learning process is king today&mdash;not just the learning outcome" (p. 8).   Retrieved from http://www.tomorrow.org/speakup/pdfs/SU08_findings_final_mar24.pdf.

Technology is recognized by CUSD as a positive component in creating a successful learning environment. This is also corroborated by research. Cheryl Lemke, Ed Coughlin, and Daren Reifsneider (2009) stated, "The research on the effects of technology on learning is emerging, especially for Web 2.0. Overall, across all uses in all content areas, technology does provide a small, but significant, increase in learning when implemented with fidelity and accompanied by appropriate pedagogical shifts" (p. 42).

Retrieved from
http://www.cisco.com/web/strategy/docs/education/tech_schools_09_research.pdf.

A shift to the Common Core State Standards (CCSS) and the computer based SMARTER Balanced Assessment Consortium (SBAC) exams that students will be administered require that

students have a strong foundation in technology. Students will also be required to interact in a collaborative fashion with peers and use technology for a variety of applications across all subject areas. For this reason it is necessary that student have access to a variety of technological devices within their classrooms and that teacher utilize these tools in a manner that maximizes student learning. The research further establishes a strong correlation to positive student outcomes and effective teacher use of technology as an instructional tool. Walden University's study entitled, Educators, *Technology and 21st Century Skills: Dispelling Five Myths: A Study on the Connection Between K–12 Technology Use and 21st Century Skills* (2010) reported, "The more that K–12 teachers use technology, the more they recognize and value its strong positive effects on student learning and engagement and its connection to 21st century skills" (p.4

Retrieved from http://www.publishing.waldenu.edu/cgi

  A current trend in education is the move towards one technological device (ie. laptop, iPad, or tablet) per student. Although the research is limited on this subject it suggest that there are benefits to one on one technological initiatives. David L. Silvernail (2011) noted that**, "**Middle school teachers report substantial benefits from the laptop program. Teachers indicated the laptops have helped them teach more, in less time, and with greater depth, and to individualize their curriculum and instruction more. Many teachers reported that their students learned more and in greater depth with the laptops (p.1).

Retrieved from https://usm.maine.edu/sites/default/files/cepare/MLTIBrief20119_14.pdf.

**Professional Development**

In the Educational Technology Plan, professional development is a high priority. The need for professional staff development related to technology for educational purposes has been addressed in research. Silvernail (2011) noted that the success of Maine's laptop initiative was in large part due to effective staff development. He states, "In mathematics there is evidence that a well-designed and executed professional development resulted in improved student performance in mathematics" (p. 35).

Ceres Technology Plan emphasizes the District's intent to train teachers on effective use of technological tools and software available to teachers. This is a direct correlation to research, which emphasizes, "Therefore, school leadership is a critical factor in facilitating teacher change. One of the primary roles of school leadership is to support teachers and create a shared vision for technology use. The shared vision should place emphasis on including technology as part of the definition of "good" teaching. This can be achieved by creating expectations that professional development plans will include a technology component. In addition, engaging teachers in situated professional development, either in the form of lesson study, through the use of peer coaches, or some other means, can begin to change teachers' conversations, and eventually the expectations they have of themselves and others..." (Ertmer and Ottenbreit-Leftwich, 2010, pp. 275-276). There is a concerted focus, by the CUSD administration, to actively promote, and support, the use of technology in the district on all levels.

Retrieved from http://marianrosenberg.wiki.westga.edu/file/view/ErtmerPTeacherTechnology.pdf/348949052/ErtmerPTeacherTechnology.pdf.

9b. Describe the district's plans to use technology to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning technologies.

The current implementation of the Common Core State Standards and the SMARTER Balanced Assessment Consortium exams will necessitate the student's ability to be effective users of technology with a strong emphasis on the use of software.   Student will need to be effective communicators in the domains of reading, writing, listening and speaking.   Students will need to be effective communicators and learn 21st Century Collaboration skills. For this reason the emphasis of this plan is for students to utilize effective collaboration tools such as Google documents. The plan is for teachers to receive staff development on the effective use of technology based collaboration tools to augment instruction. Students will also access information through several technology sources and synthesize that information into presentations. Students will also utilize these resources in developing projects for classroom presentations.

Technology is a necessary tool to implement and support the teaching of the newly adopted Common Core State Standards.   Effective communication, collaboration, building conceptual knowledge and strengthening math practices cannot be accomplished unless technology is utilized in the instructional process.   The district will continue to investigate emerging technologies by collaborating with instructional leaders, attending workshops, conferences, and other professional development activities. Using collaborative technology online tools, students and teachers will communicate within the classroom, classroom to classroom, school to school, district to district, and globally.

**Appendix C - Criteria for EETT Technology Plans**
**(Completed Appendix C is REQUIRED in a technology plan)**

*In order to be approved, a technology plan needs to "Adequately Addressed" each of the following criteria:*

- For corresponding EETT Requirements, see the EETT Technology Plan Requirements (Appendix D).
- Include this form (Appendix C) with "Page in District Plan" completed at the end of your technology plan.

| 1. PLAN DURATION CRITERION | Page in District Plan | Example of Adequately Addressed | Example of Not Adequately Addressed |
|---|---|---|---|
| **The plan should guide the district's use of education technology for the next three to five years. (For a new plan, can include technology plan development in the first year)** | | The technology plan describes the districts use of education technology for the next three to five years. (For new plan, description of technology plan development in the first year is acceptable). Specific start and end dates are recorded (7/1/xx to 6/30/xx). | The plan is less than three years or more than five years in length.<br><br>Plan duration is 2008-11. |
| **2. STAKEHOLDERS CRITERION** Corresponding EETT Requirement(s): 7 and 11 (Appendix D). | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
| **Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.** | | The planning team consisted of representatives who will implement the plan. If a variety of stakeholders did not assist with the development of the plan, a description of why they were not involved is included. | Little evidence is included that shows that the district actively sought participation from a variety of stakeholders. |

| 3. CURRICULUM COMPONENT CRITERIA Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D). | Page in District Plan | Example of Adequately Addressed | Example of Not Adequately Addressed |
|---|---|---|---|
| **a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.** | | The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers. | The plan explains technology access in terms of a student-to-computer ratio, but does not explain where access is available, who has access, and when various students and teachers can use the technology. |
| **b. Description of the district's current use of hardware and software to support teaching and learning.** | | The plan describes the typical frequency and type of use (technology skills/information and literacy integrated into the curriculum). | The plan cites district policy regarding use of technology, but provides no information about its actual use. |
| **c. Summary of the district's curricular goals that are supported by this tech plan.** | | The plan summarizes the district's curricular goals that are supported by the plan and referenced in district document(s). | The plan does not summarize district curricular goals. |
| **d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals.** | | The plan delineates clear goals, measurable objectives, annual benchmarks, and a clear implementation plan for using technology to support the district's curriculum goals and academic content standards to improve learning. | The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals. |

| e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace. | | The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire technology skills and information literacy skills. | The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to accomplish the goals. |
|---|---|---|---|
| f. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students and teachers can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism | | The plan describes or delineates clear goals outlining how students and teachers will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing and/or downloading. | The plan suggests that students and teachers will be educated in the ethical use of the Internet, but is not specific enough to determine what actions will be taken to accomplish the goals. |
| g. List of goals and an implementation plan that describe how the district will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid online predators. | | The plan describes or delineates clear goals outlining how students and teachers will be educated about Internet safety. | The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals of educating students and teachers about internet safety. |

| | Page in District Plan | Example of Adequately Addressed | Example of Not Adequately Addressed |
|---|---|---|---|
| **h. Description of or goals about the district policy or practices that ensure equitable technology access for all students.** | | The plan describes the policy or delineates clear goals and measurable objectives about the policy or practices that ensure equitable technology access for all students. The policy or practices clearly support accomplishing the plan's goals. | The plan does not describe policies or goals that result in equitable technology access for all students. Suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals. |
| **i. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs.** | | The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to support the district's student record-keeping and assessment efforts. | The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals. |
| **j. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.** | | The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve two-way communication between home and school. | The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals. |
| **k. Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.** | | The monitoring process, roles, and responsibilities are described in sufficient detail. | The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities. |
| **4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA** Corresponding EETT Requirement(s): 5 and 12 (Appendix D). | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |

| a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development. | | The plan provides a clear summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development. The findings are summarized in the plan by discrete skills that include Commission on Teacher Credentialing (CTC) Standard 9 and 16 proficiencies. | Description of current level of staff expertise is too general or relates only to a limited segment of the district's teachers and administrators in the focus areas or does not relate to the focus areas, i.e., only the fourth grade teachers when grades four to eight are the focus grade levels. |
|---|---|---|---|
| b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (Sections 3d - 3j) of the plan. | | The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing teachers and administrators with sustained, ongoing professional development necessary to reach the Curriculum Component objectives (sections 3d - 3j) of the plan. | The plan speaks only generally of professional development and is not specific enough to ensure that teachers and administrators will have the necessary training to implement the Curriculum Component. |
| c. Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities. | | The monitoring process, roles, and responsibilities are described in sufficient detail. | The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected. |
| **5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA** Corresponding EETT Requirement(s): 6 and 12 (Appendix D). | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |

| a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components (Sections 3 & 4) of the plan. | | The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components. | The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail. |
|---|---|---|---|
| b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan. | | The plan provides a clear summary and list of the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support the district will need to support the implementation of the district's Curriculum and Professional Development components. | The plan includes a description or list of hardware, infrastructure, and other technology necessary to implement the plan, but there doesn't seem to be any real relationship between the activities in the Curriculum and Professional Development Components and the listed equipment. Future technical support needs have not been addressed or do not relate to the needs of the Curriculum and Professional Development Components. |
| c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b. | | The annual benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when. | The annual benchmarks and timeline are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when. |
| d. Describe the process that will be used to monitor Section 5b & the annual benchmarks and timeline of activities including roles and responsibilities. | | The monitoring process, roles, and responsibilities are described in sufficient detail. | The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected. |

| 6. FUNDING AND BUDGET COMPONENT CRITERIA<br>Corresponding EETT Requirement(s): 7 & 13, (Appendix D) | Page in District Plan | Example of Adequately Addressed | Example of Not Adequately Addressed |
|---|---|---|---|
| **a. List established and potential funding sources.** | | The plan clearly describes resources that are available or could be obtained to implement the plan. | Resources to implement the plan are not clearly identified or are so general as to be useless. |
| **b. Estimate annual implementation costs for the term of the plan.** | | Cost estimates are reasonable and address the total cost of ownership, including the costs to implement the curricular, professional development, infrastructure, hardware, technical support, and electronic learning resource needs identified in the plan. | Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed. |
| **c. Describe the district's replacement policy for obsolete equipment.** | | Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components. | Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented. |
| **d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.** | | The monitoring process, roles, and responsibilities are described in sufficient detail. | The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected. |
| **7. MONITORING AND EVALUATION COMPONENT CRITERIA**<br>Corresponding EETT Requirement(s): 11 (Appendix D). | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |

| a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning. | | The plan describes the process for evaluation using the goals and benchmarks of each component as the indicators of success. | No provision for an evaluation is included in the plan. How success is determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing. |
|---|---|---|---|
| b. Schedule for evaluating the effect of plan implementation. | | Evaluation timeline is specific and realistic. | The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan. |
| c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders. | | The plan describes the process and frequency of communicating evaluation results to tech plan stakeholders. | The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings. |
| **8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION** Corresponding EETT Requirement(s): 11 (Appendix D). | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
| **If the district has identified adult literacy providers, describe how the program will be developed in collaboration with them. (If no adult literacy providers are indicated, describe the process used to identify adult literacy providers or potential future outreach efforts.)** | | The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers or potential future outreach efforts. | There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the use of technology. |

| 9. EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA Corresponding EETT Requirement(s): 4 and 9 (Appendix D). | Page in District Plan | Example of Adequately Addressed | Example of Not Adequately Addressed |
|---|---|---|---|
| **a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.** | | The plan describes the relevant research behind the plan's design for strategies and/or methods selected. | The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing. |
| **b. Describe the district's plans to use technology to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning technologies.** | | The plan describes the process the district will use to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning opportunities (particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources). | There is no plan to use technology to extend or supplement the district's curriculum offerings. |

# Appendix J - Technology Plan Contact Information
## (Required)

Education Technology Plan Review System (ETPRS)
Contact Information

County & District Code:     50 - 71043

School Code (Direct-funded charters only):

LEA Name:     Ceres Unified

*Salutation:     Mr.

*First Name:     Chris

*Last Name:     Higle

*Job Title:     Director of Information Technology

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*Zip Code:     95307-0307

*Telephone:     209-556-1500

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Please provide backup contact information.

1st Backup Name:     Cathy Pietanza

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2nd Backup Name:     Jessie Ceja

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* Required information in the ETPRS