



**Central Union Elementary School District**

**District CDS Code: 1663883**

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Education Technology Plan: July 1, 2010 - June 30, 2013

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## Background and Demographic Profile

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### DISTRICT SUMMARY

Central Union Elementary School District is located in Lemoore, California, in the heart of the San Joaquin Valley about 45 minutes south of Fresno, halfway between San Francisco and Los Angeles. The communities of Central, Stratford, and the City of Lemoore are rich with history, tradition, and warm, caring people. The District resides in a rich agricultural area, which has two Federal facilities within its boundaries: the Santa Rosa Rancheria Indian Reservation and the Lemoore Naval Air Station. The economic structure of the area is based upon farming, primarily cotton, grains, some dairy, and the U.S. Military. The District is comprised of four schools. All have been California Distinguished Schools and two of the schools were honored as National Blue Ribbon Schools. All of the schools operate on a traditional calendar. The District is sensitive to the specific needs of the students it serves in preschool through eighth grade. For the 2009-2010 school year District enrollment is 1,900 students.

Leadership in Central School District is provided by a seven-member board. Board members take an active part in the education of all Central children.

Central is very proud of its technology program. Students and staff have accessibility to technology regularly.

The District has four school site library/media centers with over 55,000 books for students to check out, 32 magazine subscriptions, and over 3190 software programs, videos, and digital media. At each school site, there is a minimum of three (3) computers assigned to the classrooms, and some classes are equipped with a mini lab of six to ten (6-10) computers. The District maintains thirteen (13) Macintosh OS X Servers. These servers provide student and administration access to data on the network, as well as providing access to the Internet via the Wireless WAN connection. Two (2) of these servers also maintain the e-mail system and the Web/Streaming Video server. In addition, the District has a LightSpeed Filter to monitor and filter all content being sent and received by student.

Central Union School District is small in size but large in education, commitment and success.

**Admiral Akers Elementary School (Preschool – 8<sup>th</sup> grade)**

Principal: Heiko Sweeney

Assistant Principal: Anne Gonzalez

Akers School is located on the Naval Air Station in Lemoore. Akers has a diverse population; statistics from review of student data details the following:

Akers School	Student Enrollment	Percent of Total
Asian	37	5%
African American	63	9%
Filipino	36	5%
Hispanic	117	17%
American Indian	5	<1%
Other	16	2%
Pacific Islander	10	<1%
White	408	59%
Total Student Enrollment	692	

**Central Union Elementary (Preschool – 8<sup>th</sup> grade)**

Principal: Nancy Davis

Assistant Principal: Cindee Rael

Central Union is a small country school located in Lemoore. Central School houses a population with the following demographics:

Central School	Student Enrollment	Percent of Total
Asian	1	<1%
African American	13	4%
Filipino	1	<1%
Hispanic	93	26%
American Indian	216	60%
Other	1	<1%
Pacific Islander	0	0%
White	37	10%
Total Student Enrollment	362	

**R.J. Neutra Elementary (Kindergarten – 5<sup>th</sup> Grade)**

Principal: John Partin Assistant Principal: Scott Chennault

R.J. Neutra is located on the Naval Air Station in Lemoore. Student population includes:

Neutra School	Student Enrollment	Percent of Total
Asian	24	4%
African American	58	10%
Filipino	35	6%
Hispanic	115	21%
American Indian	8	1%
Other	2	<1%
Pacific Islander	19	2%
White	306	55%
Total Student Enrollment	558	

**Stratford Elementary School (Preschool – 8<sup>th</sup> grade)**

Principal: Bill Bilbo Assistant Principal: Cindee Rael

Stratford (K-8) located in Stratford, which is South of Lemoore. Stratford School, established at the "Turn of the Century", has a population with the following demographics.

Stratford School	Student Enrollment	Percent of Total
Asian	0	0%
African American	3	<1%
Filipino	0	0%
Hispanic	256	89%
American Indian	5	2%
Other	2	<1%
Pacific Islander	0	0%
White	22	8%
Total Student Enrollment	288	

## **PARTNERSHIP INVOLVEMENT**

The following groups were actively involved or utilized as reference and resource contacts during the development of this technology plan. These participants have been an active influence on technology in the past and will continue into the future.

District School Board

District and Site Administration

Classroom Teachers

Technology Support Staff

School Site Councils

Educational Partnerships

- Local High School and Neighboring Elementary School Districts
- Kings County Office of Education
- CTAP California Technology Assessment Project
- ISTE International Society for Technology in Education
- Central Valley CVCUE
- CUE Computer Using Educators, Inc
- Business Partnership
- NAS (Naval Air Station) Lemoore
- The Tachi Yokut Tribe

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1. Plan Duration

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**July 1, 2010 - June 30, 2013**

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## 2. Stakeholders

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Ongoing technology planning in the Central Union Elementary School District is guided by a collaborative vision of how technology can help students meet the academic content standards and reach the desired learning outcomes identified by our school district and its community. Our District stakeholders convene in the fall of each school year to serve as a strategic planning committee for technology in the development of our original technology plan and since then the role of site councils have expanded to play a significant role as our implementation oversight team. Annually in the fall, our administrative team reviews the District's curriculum goals and current student achievement data and then determines how technology may be effectively used to help students reach the District's curriculum goals. Our district's technology is comprised of district and site representatives who are responsible for implementing the plan. Parents and local community members are also invited to participate in this effort to keep our plan current and relevant.

### **District and Community Support**

#### **School Board**

Pat Jerrold, President  
Jeff Gilcrease, Clerk  
Dale Davidson  
Laura Espinoza  
Ceil Howe, III  
Larry Jones  
Heidi Wyman

#### **District Administration**

Ron Seaver, Superintendent  
Tom Addington, Assistant Superintendent-Human Resources, Special Education, & Technology  
Jack Boogaard, Assistant Superintendent-Business and Fiscal Services  
LeeAnne Rossiter, Director of Curriculum and Instruction  
Elizabeth Williams-Lozano, Coordinator of Curriculum and Instruction

#### **Local Representatives**

Brian Curwick, CTAP- Region VII

Akers School Site Council  
Central School Site Council  
Neutra School Site Council  
Stratford School Site Council

#### **District Committee Membership**

Technology Committee 2009-10  
Curriculum Council 2009-10

**District Technology Department**

Mark Tompkins, Manager of Instructional Technology & Media Services  
Steve Tashima, Server Coordinator  
Kim Betteridge, Data Support Specialist/Web Master  
John Palisoc, LAN Technician  
Jared Johnson, Computer Repair Technician  
Christina Luis, Technology Support Specialist  
Patrick Esquivel, Technology Support Specialist

**Akers**

Heiko Sweeney, Principal  
Karla Orosco, Teacher  
Cheryl Wahl, Teacher  
Peggy Anderson, Library Clerk

**Central**

Nancy Davis, Principal  
Cindee Rael, Assistant Principal  
Erin Ferriera, Teacher

**Neutra**

John Partin, Principal  
Scott Chennault, Assistant Principal  
Jayne Grundbrecher, Teacher  
Darin Denney, Teacher

**Stratford**

Bill Bilbo, Principal  
Marilyn Mathis, Teacher

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### 3. Curriculum

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

Central Union Elementary School District has entered into a contractual arrangement with Kings County Office of Education to provide access to the Internet. This connection is through a high-speed wireless signal providing 100mb connection providing adequate speed for the population of staff and students at Central Union Elementary School District. KCOE also provides a high-speed wireless signal providing 100mb connection from Central Union Elementary School District and Central Elementary to the other three (3) schools in the District (Akers Elementary, Neutra Elementary and Stratford Elementary).

In order to provide the quality and quantity of service to students listed in the Curriculum Components of this Technology Plan the services provide by the Kings County Office of Education through E-Rate funding is critical. Without the ongoing services provided by the Kings County Office of Education Internet access to all classrooms, computers, students and teachers would some become unmanageable and unusable.

As students and teachers expand their technology skills and usage, it will become increasingly important to be sure that the Internet bandwidth continues to grow with their curricular needs. With over 800 computers accessing the network at 100 Mbs connecting to the network and greater Internet for data, audio and video files, the students and teachers place high demands on Internet access.

Currently with the use of four (4) school wide LANs and a District wide WAN, all classrooms and school offices are connected and have access to the Internet and student/teacher servers, including two (2) stationary labs and one (1) mobile lab at Akers Elementary, two (2) stationary labs and one (1) mobile lab at Neutra Elementary, one (1) stationary lab and one (1) mobile lab at Central Elementary, and one (1) stationary lab and three (3) mobile labs at Stratford Elementary.

The computer labs are utilized by all classes during scheduled times. Current software is available for all grade levels to enhance classroom curriculum, as well as exposing the lower grades to computers.

There are approximately 800 total computers actively connected throughout the District. Each LAN is comprised of a fiber-optic backbone connecting to core switches, which then terminate in smaller unmanaged switches at the classroom level. All computers are connected with Cat-5 cable to the LAN utilizing 10/100base-T architecture and speed (Stratford Elementary has all computers connected via Cat-6 cable to the LAN utilizing 10/100/1000base-T architecture).

Each of the (4) schools has wireless access in every classroom. Wireless access points are spread throughout the schools providing coverage. As Central Union School District continues to add more laptops and wireless devices into the classroom, it will become necessary to increase wireless coverage and bandwidth.

Since 1998 Central Union School District has used district funds combined with E-rate funding to continue the growth and performance of the LAN by providing switches, wireless access points and wiring for classroom access to the Internet. As additional computers and wireless devices are added to the network it will be necessary to continue the growth and development of the network infrastructure (wiring, switches and routers). This can only take place with the continued support from funding such as E-rate.

Each classroom has a minimum of two (2) student computers and one (1) teacher laptop as well as access to each school's computer labs. Every classroom is equipped with a television and VCR or DVD players. At Akers 100% of the classrooms have LCD projectors, at Stratford, 100% of the classrooms have LCD projectors, at Central 100% of the classrooms have projector, and at Neutra, 90% of the classrooms have LCD projectors. Neutra has access to Direct TV on campus to bring educational programming to the students.

Three of the school sites in the District have the use of a Polycom videoconference camera. Through the partnership with the Kings County Office of Education, the District has the infrastructure for broadband highspeed internet connections to allow for a variety of videoconferencing capabilities. Students participate in live interactive field trips, and content providers design programs and lessons for live interactive programs aligning with state and national content standards. In addition to the student utilization, District administration and certificated staff have been involved with high level professional development provided through the videoconferencing capacity to enhance instructional delivery for student achievement.

Every student has daily access to a computer. An example of a typical 4<sup>th</sup> grade classroom working on a science lesson would involve research from the Internet, and communication with online experts in the field. The information gathered from the computer lab, would be stored in their personal folder on the server. In the classroom, students would have time to use computers to retrieve the information that had been saved on the server folder and create a project to demonstrate their knowledge of the subject. Students are able to save their finished product to the teachers drop box on the server, e-mail it to the teacher, post it to their student web page, or print the document.

Central Union Elementary School District currently has thirteen (13) Macintosh OS X Servers. These servers provide student and administration access to data on the network, as well as providing access to the Internet via the Wireless WAN connection. Three of these servers also maintain the e-mail system and Web/Streaming Video server. In addition, the District has a LightSpeed Filter to monitor and filter all content being sent and received by student and staff.

All students and staff have access to network resources and programs for educational projects. Development of computer skills through the use of word processors, spreadsheets, publishing software, Internet and multimedia applications are currently available. Currently available software includes: MS Office Suite, KidPix, Kidspiration, Inspiration, Reading Counts, Accelerated Reader, STAR Math, Reading and Early Literacy, iLife Suite (iPhoto, iMovie, iDVD, iWeb, iChat, iCal, iTunes, GarageBand), Type to Learn 3, Photoshop Elements 3 and Macromedia Studio (Dreamweaver, Flash, Freehand and Fireworks). Web subscriptions include: StudyWiz, Google Apps, Atomic Learning, United Streaming, Quia, Web 2.0 Tools and My Access.

Every classroom in the District is equipped with a telephone and voice mail. Telephones allow users to make and receive outside calls. Central Union School District has migrated to VoIP for all of the schools within the District.

In order to provide students with the tools to achieve the curricular components set forth in this document and future technology needs, adequate hardware and software must be readily available. Qualified training and technical support must also be readily available for students and staff.

Technology support for the District includes two (2) Technology Support Specialist to support all school sites, one (1) Computer Repair Technician to provide repair and perform warranty work, one (1) Data Specialist Technician to maintain student records and testing results, one (1) Network Technician to maintain the LAN's and WAN, one (1) Server Administrator, one (1) Manager of Instructional Technology and Media Services, and one (1) Assistant Superintendent of Human Resources, Special Education, & Technology to oversee the implementation of technology District wide. This support staff is cross-trained to handle the hardware and software problems that occur.

This support staff is able to provide software repair within a day and hardware repair within 2-5 days. Repair needs are logged into a tracking system and technicians respond as needed. District technicians are trained and authorized to do all warranty work on the computer equipment. This dramatically reduces the amount of down time for students and teachers.

As technology is quickly improved, the District upgrades the technology about every 5-6 years, replacing approximately 20% of the hardware each year. Currently there are about 800 computers in the hands of students and teachers. Each year the District purchases over 150 new computers and removes approximately 120-150 each year as surplus. By refreshing one fifth of the technology each year, the District strives to ensure that students are using current technology on a regular basis.

School site wiring and switches at Central, Akers and Neutra will need to be replaced in the next 1-3 years. Using E-Rate funding, Stratford network wiring was replaced in the summer of 2006. Stratford switches will need to be replaced in the next 1-3 years. Maintenance of severs, switches and network wiring is an ongoing expense.

Most of the surplus technology is still in good working order. Rather than disposing of the surplus equipment Central Union strives to locate homes for the technology within the local community. Often, these computers are given to students as incentives for good work and behavior.

Monitoring the progress of infrastructure, hardware, software and technical support will be an ongoing process for the Assistant Superintendent, Manager of Instructional Technology and Media Services, and Technology Committee. Monitoring the integration of curriculum and technology will be an ongoing process with both the Technology and Curriculum Departments overseeing implementation of the plan.

The Technology Committee will meet once a month reviewing the current progress and problems encountered in the District wide implementation of technology. They will review current and planned Infrastructure, Hardware, Software and Technical Support activities

to see that they meet the goals set forth in this document. There is cross over between the Technology Committee and Curriculum Council. For educational technology integration, a member from the Curriculum Council participates as a member on the Technology Committee. Likewise a teacher from technology sits on the Curriculum Council. Site and District administrators participate in both of these guiding committees.

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

Students in Central Union work on computers on a regular basis beginning at the kindergarten level and continuing through grade eight. Computers in the primary grades will be used as a regular station. Students begin by learning computer terminology and mouse manipulation in kindergarten. Grades one and two learn general keyboarding skills, and at grade three the students are introduced to the Type to Learn software. After Type to Learn, several other types of software are used to support the regular curriculum, such as Kids Works Deluxe, Magic School Bus, Living Books, Math Blaster, River Deep Software, Knowledgeable Advantage Software, Jump Start Series, and Clifford Series for Scholastic. Grade seven students use online resources to experience stock simulation, followed by a Power Point experience in the eighth grade. In grades 3-8 students use computers to research, write, publish, and actively explore the subject areas that they are studying. Students in grades 1-8 use Accelerated Reader regularly. Technology also serves as a powerful outlet for creativity at all grade levels. By integrating technology into the curriculum, we can build academic success through all learning modalities.

While Central Union Elementary School has made technological strides in the past years, it clearly understand that technology is always advancing; therefore, regular evaluation of technology tools is necessary to keep up with the changing technological environment. The primary goal of the District's educational technology is to maintain and expand high technology usage while upgrading the curricular goals to expand technological education.

PowerSchool/PowerTeacher: During the 1999 school year, the District adopted PowerSchool to serve as the student attendance and accounting system. PowerSchool/PowerTeacher is a web-based, cross-platform application. PowerSchool provides easy-to-use communication tools, which allow access of student records and student progress to a variety of stakeholders (students, parents, teachers, and administrators). PowerTeacher is the integrated gradebook, which provides teachers an electronic recording system to aid teacher workflow. Parents have the ability to access their child's present status for grades and class work via the web interface. PowerTeacher gives a vehicle to provide timely and relevant information to assist with student achievement and success.

Standardized Testing and Reporting (STAR): The District uses technology in several ways to prepare for and analyze student achievement data. Prior to the testing window, student data is exported from the student accounting package, properly formatted and then forwarded electronically to have the student demographic data accurately recorded for the purposes of Pre-Identification (Pre-ID) for STAR participation.

DataDirector: During the 2006 school year, Central Union partnered with Achieve! Data Solutions, LLC, to purchase DataDirector This program is a customizable web-based data warehouse and assessment management systems an educational company dedicated to building technical tools that really work for educators. Within the

DataDirector solution, staff will have access to a variety of student modules, including, student assessment, student demographic assessment profiles, exam features, and state standards reporting. The integration of this solution, along with other data and assessment tools, will allow staff to quickly view, aggregate, disaggregate and report on student academic performance across a number of variables. As the District continues to integrate the elements of DataDirector the expectation will continue to allow the ability of staff to create assessments, which are linked to state standards and will provide item analysis for the purposes of data-based instructional and curricular decisions.

PE Testing: Each year the District tests fifth and seventh grade students in specific areas of physical fitness. This data is then compiled into a database then exported to an electronic file, which is then sent to the State Department of California.

Renaissance Learning: Each of the school sites within the Central Union School District has access to a reading program for the purposes of assessing student reading level, monitoring reading comprehension, and motivating student reading skills. With this reading program, staff has access to reliable, and objective information regarding each child's literacy skills. Through continual use of this program, students are guided through reading progress and growth, by ensuring that the material selected for the students to read is within the range appropriate for their skill, which in turn, allows each student to be challenged appropriately without creating frustration in the task. The ease of access to the computers stationed throughout the campus (in the classroom, library, or lab) affords each child the opportunity to respond to the literature and gives the teacher immediate feedback on student performance. In the Renaissance Learning Suite, the **Accelerated Reader (AR)** shell is the most utilized product. AR's advanced technology helps students and staff:

- Makes essential reading practice more effective
- Personalizes reading practice to each student's current level
- Assesses students' reading with four types of quizzes: Reading Practice , Vocabulary Practice , Literacy Skills , and Textbook Quizzes.
- Builds a lifelong love of reading and learning.

Alexandria: Alexandria is a web based library automation software solution used by each of the libraries in the Central Union School District. This application provides an easy to use web interface, which gives students and staff real time access to titles contained within the school libraries. Searching may be done based upon keyword or sound-alike words, and the program provides easy access to titles for the student reading program Accelerated Reader. The tools of Alexandria offer each library clerk the ability to completely manage a fully integrated library program. Reports on student usage and patterns may be quickly generated by the library clerk for distribution to staff and administration.

E-mail Access: E-mail is a very powerful way for administrators, teachers, students and parents to communicate. Every administrator and teacher has a computer at his or her desk that is connected to the network and to e-mail. Staff through out the district, check their e-mail accounts two to three times per day. All teacher and administrator e-mail accounts are listed on the District and School Site web pages.

QUIA: *Quia* is an educational website which provides the educational technology giving teaching staff the ability to create customized educational software online. *Quia* delivers the ability for staff to create assessments, which also allow for individual student records and analysis for the performance of these online assessments. Further, *Quia* serves as a website host for staff to place information regarding assignments and upcoming events

providing an additional electronic communication tool to keep parents and students informed about school assignments and tasks through the calendar feature of this software.

Atomic Learning: At the close of the 2006 school year, a subscription was purchased for an online training tool known as Atomic Learning. Atomic Learning provides web-based software training and curriculum resources for more than 100 applications students and educators use every day. This web-based solution focuses on answering the common questions of users have when learning popular software packages. Within the Atomic Learning arena, the developer provides thousands of short, easy-to-understand tutorial movies and a library of curriculum resources that can be used as an integral part of a professional development program, a valuable curriculum supplement, and an anytime/anywhere software training resource.

Student Electronic Portfolio: All student work is saved to a centralized school server. When a student sits down at any of the 3-6 computers in the classroom or in the computer lab and they log into the their account on the server. When they complete work it is saved into their folder on the server. From any computer in the school the teacher can log into the server and access the work the student has created. Teachers check the student work on a quarterly basis. At the end of each school year, all student work is archived so that the server can be cleaned. Teachers have access to archived data from previous years.

Meal Tracker: This application is used by the office staff to monitor, which students participate in the Free and Reduced Lunch Program. Data on each student is entered into the program and letters of participation are printed and sent home to the families who participate in the program. Laptop computers and keypad entry are utilized for students to access individual accounts for meal balances. EZ School&trade; pay program is available for parents to track usage of fund balances and accounts.

Discovery Education UnitedStreaming: Discovery Education provides *UnitedStreaming* as a digital video-based learning resource for each of the school sites within the Central Union School District. With Discovery Education *UnitedStreaming*, staff has the ability to acquire on-demand access to 50,000 content-specific segments from 5,000 full-length educational videos. Streaming video may be searched by keyword, subject, grade or curriculum standards and provide content in the curricular areas of Secondary Math skills, Science, and Language Arts, and Current events videos.

SOAR (Student Online Achievement Resources): SOAR is an innovative program available for students in 3rd - 8th Grade that makes it easy for parents to play an active role in their children's education. SOAR is designed for military families, and is easily accessible worldwide. Students take an assessment aligned to state standards, and SOAR directs them to individualized tutorials to improve skills where needed. Parents can monitor their children's progress from anywhere, and are provided with resource materials. SOAR Home is an internet-based application, which is easily accessible worldwide.

Parent components include:

- Easy access to their children's accounts
- Links to military installations, transition resources and school websites.
- Resources for at-home learning activities
- Message board
- State-specific resources, such as state learning standards
- Links to Department of Education and other educational resources websites

Student components include:

- Assessments aligned with state standards to identify their strengths and weaknesses in reading and mathematics
- Tutorial lessons to reinforce and review skills not mastered

Online Mandated training: Part of the mandated responsibilities and training for school district personnel is regular and ongoing training for certain mandated trainings. Examples of such training are the annual bloodborne pathogen precautions and child abuse reporting procedures. With the increased use of technology by all staff, the District initiated online completion of these mandates through a website interface and interactive training modules which allowed for self-paced learning and completion of these tasks. While this served as a pilot during the present year, the District intends to expand this method of training to future areas, such as new employee orientation and other mandated training as specified in policy and regulation.

Web 2.0 Tools: Weblogs, Wikis, Podcasts: Web 2.0 tools are web publishing and information gathering tools. These tools provide continuous learning . The Central Union School District uses the Web 2.0 tools to engage/motivate students in their learning, to focus the instruction on the California standards and to assess student acquisition and knowledge. These tools teach and emphasize critical reading and writing skills. Because students need to use a variety of technological resources to gather and synthesize information and to create and communicate knowledge, it is vital that students acquire the skills necessary for life long learning. Wikis are a collaborative webspace where anyone can add and edit content that has already been published. Weblogs (Blog) are websites that allow an author to publish instantly to the Internet from any Internet connection. This is a special type of web page that can be created and easily updated using a web browser. Each new entry has a date and a comment section where visitors can leave comments to the author of the blog. Podcasts provide the ability to create and distribute broadcasts containing spoken or visual information. Web 2.0 Tools are currently being used in a variety of content areas in the Central Union School District. Dialogue and professional discussion are presently occurring with staff through this medium. Teachers are using these tools to differentiate lessons. Students respond in small groups to literature they are reading. Students are creating podcasts on science topics and sharing with peers. Homework assignments are handed in through a weblog or wiki. Students on independent study are able to get class information from a blog/wiki/podcast then submit work. Students are posting his/her work on a blog/wiki/podcast and the teacher grades online.

## **FUTURE GOALS**

Numerous studies have examined the link between technology use and its impact on student socio-emotional factors, such as student motivation, disruptive classroom behavior, classroom participation/engagement, and students' interaction with their peers or teachers. Additionally, as Central grasps the notion of the 21st century learner, the realization is one of preparation for the students. The understanding that the goal is to prepare students to excel and flourish in a global world, one in which technology is intertwined in all areas. Central Union School District will strive to use 'state-of-the-art' technology as it becomes available. Central Union School District recognizes and embraces this concept. As Central continues to meet these challenges and expand the integration of technology in every corner of the instructional program, the District will continue to examine innovative ways in which to infuse technology daily. Areas of

exploration with technology include video conferencing, expanding the use of mobile devices (such as iPods) for learning opportunities, student responder systems for integrated feedback on student learning, and cloud computing with programs like StudyWiz and GoogleDocs to promote mobility and access to educational content.

The District will continue to evaluate software programs and website accessibility to meet the California State Standards, which will enhance differentiated instructional approaches for all children. In order for educational leaders to demonstrate visionary ideals for the 21st century learner, it is incumbent to focus on instantaneous access to technology for every learner. This immediate integration becomes more than just access to a computer lab setting or a computer in the rear of the classroom. For this direct access, technology must be readily available, through integrated media. This translates into an educational setting in which a child has seamless access to all needed technological tools.

### **iPod Touch pilot**

The District has endeavored upon the purchase of two iPod Touch mobile learning labs. As students already have access to and are familiar with these mobile devices. This familiarity with tasks such as gathering information from the web and communicating with others through text or email, can create their learning opportunities into a mobile environment. The 21st century learners devour engaging, customized curricula when it's delivered via these devices, they permeate the young society. Audio and video podcasts can allow students study at their own pace, wherever and whenever they want. This implementation is also targeting the special education population, to bring audio books to the struggling learner. In so doing, the challenged learner will have access to grade level standards and content so learning can occur, and the disabilities of these children mitigated.

### **StudyWiz**

As stated, the District began to experiment with the web tools provided by Google during the 2007-08 school year. Following this introductory experiment, the District began to research additional products similar to the cloud computing capabilities of Google, but those which can provide additional security from non-educational use or commercialism.

StudyWiz provides this measure of student security, as well as allowing for the experience of the web 2.0 environment. Through StudyWiz, teachers and students are able to make the shift to online learning in elementary and junior high schools, which is intuitive and practical and also which helps teachers engage students through the incorporation of dynamic multi-media into lessons, including video, digital photos and sound files. StudyWiz provides for an electronic locker where students can place collections of material, resources, and documents. The StudyWiz interface houses Individual Learning Plans which encourage a constant flow of reflective dialogue between teachers and students regarding the learning progress. This dialogue provides instant feedback to guide teaching practice, informs formative assessment and enhances students' skills to become independent learners.

Parents can also access their child's school work and teacher comments from home or the office, helping them to be involved in their child's education and offer support where needed.

The District will pilot the implementation of StudyWiz at Akers School Site, with the goal of future expansion of this service Districtwide with 4th through 8th grade.

## The Digital Classroom

Integrated utilization of technology to enhance student learning is another innovation the district will pilot during the coming years. In striving to bring technology into the evolving classroom and the challenges faced by all educators, the District will continue to evaluate process, method, and strategy which provide optimal learning environments. To bring the classroom into the 21<sup>st</sup> century, during the 2010-11 the district will pilot a grade level implementation of the digital classroom. In addition to the existing classroom technology, the addition of interactive whiteboards, wireless tablets, classroom response systems, and document cameras will be included in the classroom technology. This innovative learning environment will look to ...

- integrate technology and curriculum together
- identify similarities and differences within the multiple learners
- quickly adjust to meet all student's needs
- incorporate numerous teaching strategies to be effective with technology

The District will continue to search for grants and evaluate funding options to progress toward the fully integrated technological classroom. It is Central Union's goal to have students and staffs integrate technology into daily academic work. All K-8 students have benchmarks that must be completed. Benchmarks are implemented periodically throughout the school year. The Assistant Superintendent - Human Resources, Special Education and Technology, the District Coordinator of Curriculum and Instruction, and Manager of Instructional Technology and Media Services will be responsible to work with the teachers in assessing the implementation of technology integration in the curriculum. The classroom teacher is ultimately responsible for the integration of evaluation of grade level objectives and benchmarks. The District Curriculum and Technology departments will monitor the implementation of the K-8 Scope and Sequence in regards to needed staff development. Ongoing staff development will be provided on an as needed basis.

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

The Central Union Elementary School District recognizes that technology now permeates all aspects of our world, and plays a critical role in how we live, learn, and work. In order for success in an increasingly complex and information-rich society, all students must be able to use technology effectively. Within an effective educational setting, technology can enable students to become capable learners seeking information and interacting constructively through technological access.

Overarching all of the work within the District, is the guiding document of the District Superintendent's continuous plan for improvement. Each department and school site have a measure of accountability in this system, to ensure that all work is purposefully driven to the vision, mission, goals and outcomes addressed in the plan. Primarily, the vision is to have Central Union Elementary Schools be known as world-class quality schools for all students, which empower every student to excel to their highest potential. To that end, the Central Union Elementary School District provides educational excellence through superior programs, which focus on the California State Standards and responsible partnerships working collaborative with outside agencies. Safe schools and campuses are maintained and the District has integrated the Safe School and Health Student federal grant into our schools. Technology is emphasized and assists in

achieving academic goals while offering opportunities for remediation and enrichment for our students. Fundamentally, Central Union believes that all students should have opportunities for learning, which will empower them to excel to their highest potential.

As addressed in the superintendent's guiding continuous plan for improvement, the core principles of the District are comprised of a belief that ...

- Everyone can learn.
- Education is the foundation for success.
- Education is the shared responsibility of parents, students, the school system and community.
- Every student deserves a good teacher every period every day.
- Everyone deserves a safe environment.
- Strength comes from diversity.

In the continuous plan, there are five focus areas which target specific activities toward plan continuity. These include a focus on:

- **High Academic Achievement**
  - Raise the academic challenge and performance of each student.
- **Supportive Learning Environment**
  - Provide a safe and orderly environment for all students and staff. Increase the amount emphasis on character development.
- **Strong Parental and Community Support**
  - Participate mutually with parents and community to promote school and community involvement.
- **Quality Teachers, Administrators, and Staff**
  - Hire and retain highly qualified employees in all positions.
- **Effective, Efficient Operations**
  - Operate a fiscally sound District and School site budget to maximize student achievement.

## **KINDERGARTEN - EIGHTH GRADE TECHNOLOGY GOALS**

Central Union School District recognizes and adheres to the technology standards as recommended by the National Educational Technology Standards (NETS) for students - consistent with federal expectations for student performance. As cited in the NETS Standards for Students the categories below serve to provide a framework and guide for planning technology-based activities in which students achieve success in learning, communication, and life skills.

### **Technology Standards for Students**

#### 1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.
- c. use models and simulations to explore complex systems and issues.
- d. identify trends and forecast possibilities.

## **2. Communication and Collaboration**

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Students:

- a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- c. develop cultural understanding and global awareness by engaging with learners of other cultures.
- d. contribute to project teams to produce original works or solve problems.

## **3. Research and Information Fluency**

Students apply digital tools to gather, evaluate, and use information. Students:

- a. plan strategies to guide inquiry.
- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- d. process data and report results.

## **4. Critical Thinking, Problem Solving, and Decision Making**

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Students:

- a. identify and define authentic problems and significant questions for investigation.
- b. plan and manage activities to develop a solution or complete a project.
- c. collect and analyze data to identify solutions and/or make informed decisions.
- d. use multiple processes and diverse perspectives to explore alternative solutions.

## **5. Digital Citizenship**

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a. advocate and practice safe, legal, and responsible use of information and technology.
- b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. demonstrate personal responsibility for lifelong learning.
- d. exhibit leadership for digital citizenship.

## **6. Technology Operations and Concepts**

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.
- c. troubleshoot systems and applications.
- d. transfer current knowledge to learning of new technologies.

By way of following the National Institute of Technology Standards, it allows the district to adopt and implement web-based curriculum, such as CyberSmart to address the areas of competency needed by students in towards world. Through the implementation of the CyberSmart curriculum and the lessons in the SMART curriculum, the recommended technology fluency of the NETS will be addressed.

- 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.

The section that follows describes what Central Union Elementary School District expects its students to be able to do academically in the core subjects and describes how, through meaningful integration of technology, student academic achievement can be improved. Both teacher use of technology to deliver instruction and student use of technology for learning and presenting their knowledge will be emphasized. Particular emphasis will be on development of student skills in researching, evaluating, using, and presenting information; critical thinking and problem solving; and creativity and originality. The instructional aim is that the use of technology will become a regular part of daily school activities for all students and teachers. CUESD will continuously research, investigate, pilot, and encourage the use of new educational technologies, innovations and resources as they become available and are shown to improve teaching and learning.

CUESD will continue to use Renaissance Learning programs (Star Reading, Star Math, Accelerated Reading, and Accelerated Math) to evaluate and improve student reading and math performance.

In addition, the District partnered with DataDirector a few years back. This began with integration of STAR testing performance, and has grown to include the District's trimester benchmarks. District level and site level administrators began with the assessment and data analysis, and this approach has now filtered to staff implementation.

The District realizes the importance of data driven decision making with respect to curriculum and student achievement. The introduction of Data Director has assisted with the District's consolidation of student data, which in turn, has offered the opportunity to further refine the District's curricular scope and sequence.

For continued direction in the use of Data Director, and the District's goals, please refer to section 3i.

**Goal 3d.1: Technology will be used to support standards-based instruction in Language Arts**

Objective 3d.1.1: By June 2013, 75% of CUESD students will receive instruction through an electronic resource (including the Internet) to enhance grade-level-appropriate projects. Teachers will use a technology tool of choice (projector, laptop presentation, iPod, tech tool of choice: projectors, tablets, interactive whiteboards) at a minimum of 2 to 4 times a week) to instruct on core subject areas, as measured by the EdTechProfile, Technology Assessment Profile, Personal Use Section ('Deliver Classroom Instruction'), Question 23.

Benchmarks:

- Year 1: By June 2011, 65% of CUESD students will receive instruction through an electronic resources including the Internet, to enhance grade-level-appropriate projects.
- Year 2: By June 2012, 70% of CUESD students will receive instruction through an electronic resource including the Internet, to enhance grade-level-appropriate projects.
- Year 3: By June 2013, 75% of CUESD students will receive instruction through an electronic resource including the Internet, to enhance grade-level-appropriate projects.

**Implementation Plan**

Activity	Timeline	Person(s) Responsible	Monitoring & Evaluation	Evaluation Instrument
Teachers will include technology goals for curriculum delivery in annual Stull Bill objectives	Annual	Site Administrator and Teacher	Site administration and teacher	Ed-Tech Survey

**Goal 3d.2: Site administration to enhance understanding and utilization of interpreting student assessment data.**

Objective 3d.2.1: Increase site administration’s knowledge and awareness of student data through the use of Data Director, by providing 18 hours of training and instruction by the end of the 2013 school year in the construction and analysis of reports in the DataDirector system.

Benchmarks:

- Year 1: By the end of the 2010-11 school year, site administrator will participate in six hours of Data Director training on building reports and analyzing results.
- Year 2: By the end of the 2011-12 school year, site administrator will participate in six hours of Data Director training on building reports and analyzing results.

- Year 3: By the end of the 2012-13 school year, site administrator will participate in six hours of Data Director training on building reports and analyzing results.

**Implementation Plan**

<b>Activity</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>	<b>Evaluation Instrument</b>
Increasing use of Data Director by the site administration. By the end of each school year, site administrator will participate in six hours of Data Director training on building reports and analyzing results.	Annually through plan duration	Curriculum and Instruction Department	Curriculum and Instruction, Superintendent	Evidence of training held based upon administrative agendas and meetings.

**Goal 3d.3: Central Union Elementary School students will become proficient in Mathematics and English Language Arts in support of the District’s continuous plan of improvement (area 1).**

Objective 3d.3: Central Union Elementary School students will become 90% proficient in Mathematics and English Language Arts by June 2013 as measured by state and federally mandated assessments and locally created district checkpoints.

Benchmarks:

- Year 1: Central Union Elementary School students will become 70 % proficient in Mathematics and English Language Arts by June 2011 as measured by state and federally mandated assessments and locally created district benchmarks.
- Year 2: Central Union Elementary School students will become 80% proficient in Mathematics and English Language Arts Arts by June 2012 as measured by state and federally mandated assessments and locally created district benchmarks.
- Year 3: Central Union Elementary School students will become 90% proficient in Mathematics and English Language Arts Arts by June 2013 as measured by state and federally mandated assessments and locally created district benchmarks.

<b>Implementation Plan</b>				
<b>Activity</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>	<b>Evaluation Instrument</b>

Students will take state standardized assessments annually in the spring.	Students will take state standardized assessments annually in the spring.	Site administration and standardized testing coordinator	Results will be imported into Data Director and will be reviewed by district and site administration and Certificated staff	Data Director will be used to evaluate progress.
Students will take district created benchmarks three times a year	Students will take district created benchmarks three times a year	Certificated classroom teachers, site administrators.	Student benchmark assessments will be scanned Data Director and monitored by certificated teachers, district and site administration.	Data Director will be used to evaluate student progress.

- 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.
- 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
- 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)

Given the interconnectedness of Sections (3e), (3f), and (3g), the District has elected to combine these three areas into the central theme of a knowledgeable and effective digital learner. Information literacy is a crucial skill for all users of technology to understand and embrace. However, this literacy must be embedded within an understanding of how to navigate and utilize technological resources in a safe and secure arena. It is imperative that students are instructed in appropriate utilization of information and citizenship within the digital world, which can lead the student toward the path of responsibility and productivity in learning setting and within the community.

The Central Union Elementary School District Board of Education has a Board Policy and Administrative Regulation 6163.4 in place, which provides standards and definitions for student use throughout the District.

Each year, every student and parent within the Central Union Elementary School District signs the Student Technology Use Agreement. This agreement defines appropriate use, prohibited use, and security precautions.

Any user violating these provisions, applicable state and federal laws or classroom, school and District rules is subject to loss of privileges and disciplinary options, including criminal prosecution. In accordance with District guidelines, School and District administrators make the final determinations on any computer violations.

Central Union Elementary adheres to the Character Counts! philosophy, which espouses the six pillars of character: Respect, Citizenship, Fairness, Caring, Trust, Responsibility.

Rather than scripted lessons under the Character Counts! approach, staff look for teachable moments in which the ideals can be illustrated and discussed. By infusing the six pillars into the school through lesson plans, support materials, and curricular-integration models to help teach these universal values and ethical decision making principles, the students learn the specific traits which create a well rounded citizen.

The purpose for outlining the District’s character education program and philosophy is to highlight the desire to integrate digital citizenship into the components of character development. These are not separate and isolated skills for students to acquire, but rather are parts of a whole which an integrated approach deserves.

Beginning with the 2010-2011 school year, the District will pilot the use of CyberSmart, the Internet safety education provider, to educate our students, our staff, and our community about issues in Internet safety, as well as intellectual property rights. CyberSmart! Combines standards-based lessons which are aligned to national technology and information literacy standards. This curriculum prepares students to use the Internet for communication, creativity, collaboration, critical thinking, and problem solving, which are the new basic skills for 21st century learning.

Each focus area in the CyberSmart! Curriculum contains a Home Connection activity which can enable educators to inform parents/guardians and enlist their support by providing a framework for family dialogue for the given topic. These communication sheets can either be sent home or posted to the school Web site.

The CyberSmart! program provides resources for training teachers, students, and parents in appropriate utilization and interaction with the Internet.

Appropriate measures are taken to enhance the District’s spam filtering capabilities, and employees are notified of potential viruses. Privacy protection and “hacking” are monitored by software and reviewed daily by the CUESD Manager of Instructional Technology.

**Goal 1: Students will become knowledgeable about Cyber Citizenship, and will consider the power and responsibilities of citizenship in cyberspace, including adherence to CUESD's Acceptable Use Policy.**

<b>Implementation Plan</b>				
<b>Activity</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>	<b>Evaluation Instrument</b>
Post, enforce, and distribute the acceptable use of electronic communication system and network.	Ongoing	Assistant Superintendent, Manager of Instructional Technology, & Site Principals	Assistant Superintendent, Manager of Instructional Technology	Annual notice to Parents, Online posting
Teachers will deliver lessons in "Manners, Bullying, and Ethics" from the CyberSmart! Curriculum.	Annually	Classroom Teacher	Site Administrator	Lesson Plans

Integrate CyberSmart! curriculum with the District's Character Counts program. Review the pillars of character, and integrate the respective elements of Cybersmart! which are related. Develop a roadmap of lesson delivery, for teachers to follow.	August 2010	Manager of Instructional Technology, Safe School/Healthy Student Director, Curriculum	Assistant Superintendent, Director of Curriculum	Completion of curriculum guide
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**Goal 2: Students will learn about Internet safety. Teachers will incorporate these topics into their lessons at an age appropriate level. Utilization of CyberSmart! will be used for curriculum resources to assist teachers in educating students on internet safety. 80% of students will accurately describe these concepts.**

<b>Implementation Plan</b>				
<b>Activity</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>	<b>Evaluation Instrument</b>
Investigation and development of District assessment for digital citizenship understanding	2010-11 school year	Manager of Instructional Technology	Assistant Superintendent	Completion or adoption of assessment.
Delivery of Lessons on Digital Citizenship using the CyberSmart! Curriculum paired alongside the District's Character Counts! theme	Per guideline developed in Goal 1	Classroom Teacher	Site Administrator	District developed post test instrument

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

Central Union School District School Board has made a strong commitment to providing technology access to all student for over 15 years.

Every student has access to technology in every classroom. With over 800 student computers, Central Union School District currently has a 2.5:1 student to computer ratio. Every classroom has a minimum configuration of (2) student computer, (1) teacher

computer, internet access, a printer, a television and VCR or DVD player. 97% of the classrooms have an LCD projector.

Every student has access to on campus computer labs, which include internet access and printing capabilities. The computer labs are utilized by all classes during scheduled times. Each school has a variety of stationary and mobile labs including; (2) stationary labs (1) mobile lab at Akers Elementary, (2) stationary labs (1) mobile lab at Neutra Elementary, (1) stationary lab (1) mobile lab at Central Elementary and (1) stationary lab (3) mobile labs at Stratford Elementary.

Software selected by schools to assist all students including special education, ELLs, and GATE to acquire basic skills are chosen to fulfill the following teaching and learning cycle:

- The software needed to diagnose individual student needs.
- Prescribe the skills a child needs to learn
- Provide instruction and learning opportunities
- Assess how the child is performing
- Report out findings on performance
- Diagnose the performance findings and prescribe the next step for instruction and learning

Software adopted by schools throughout the district that fits this teaching and learning cycle is: Success Maker, Imagine Learning, and Accelerated Math.

Other programs being used to extend learning opportunities in project based learning for GATE students are as followed: iMovie, Garageband, and PowerPoint.

Access to these programs is integrated into daily instruction and after school literacy programs. Two of the greatest challenges to providing access are:

- scheduling all students for computer time to experience these programs
- providing the needed time for project based learning for GATE students during the regular school hours
- Addressing the technical support for each site

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.

GOAL: CUESD teachers and administrators will use District technology for instructional decision-making based on classroom assessment data (Superintendent's Continuous Improvement Plan).

Objective & Benchmark	2010-11	2011-12	2012-13
By June 2012, CUESD administrators and teachers will regularly access formative and summative assessment data, using Data Director online reports, to guide data- driven	4 <sup>th</sup> – 5 <sup>th</sup> grade	6 <sup>th</sup> – 8 <sup>th</sup> grade	1 <sup>st</sup> – 2 <sup>nd</sup> grade

decision-making for improving student achievement.

<b>Implementation Plan</b>				
<b>Activity</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>	<b>Evaluation Instrument</b>
Provide professional development in creating and validating summative benchmark assessment. The item bank will be determined after Blueprints and Release questions are reviewed.	2010-11 school year	All teachers at each Grade Level	Curriculum Department,	Evaluation and revision of the assessment will occur on a yearly cycle aligned with LEA planning and CST data.
Professional development on DataDirector reports will be provided to teachers on district adjusted professional development days.	Grades 1-8 throughout the plan duration (2010-2013)	Curriculum Department & Technology	Curriculum Department	Completion of Activities, Schedules of 5 O'Clock Days
Hold bi-monthly training at district/site to review new techniques and reports available in Data Director and Power School.	Grades 1-8 throughout the plan duration (2010-2013)	Curriculum Department & Technology	Curriculum Department	Agenda's and sign-in sheets
Online web casts of "Professional Development Guides " on the CUSD website, as well as PD answer and questions session provided	Each trimester	Curriculum Department and Technology	Curriculum Department	Posting of webcast to website, tracking monitor on website 'visits'
CUESD	On a weekly	Teachers, Site	Site	Agendas of grade

administrators, and teachers, will individually and collaboratively review DataDirector online reports in order to identify learning gaps, plan instruction, and monitor progress.	basis, during collaborative grade level meetings	Administrators, District Administrators	Administrators	level collaborations, evaluation of grade level intervention programs utilizing datadirector information
Use School Online Assessment Resource (SOAR) to monitor reading progress for students in need of academic intervention as determined on DataDirector analysis.	Grades 4-8 throughout the plan duration (2010-2013)	4 <sup>th</sup> – 8 <sup>th</sup> grade teachers	Site Administrators, Curriculum Department	SOAR reports and usage statistics

Central Union School District (CUSD) utilizes and encourages the use of technology tools for the purpose of making student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs, including the record keeping and feedback features inherent in several of the instructional programs and online services currently in use throughout the District.

Among the systems utilized are: PowerSchool, DataDirector, Aventa-On Line History and Science Courses, and SOAR-Student Online Achievement Resource.

Since 2004, all of the District's four schools have completed site-wide migrations to a school-based record keeping and attendance system known as Power School. Power School is a student information system that consolidates a number of student demographic information and integrates all student information in a shared, centralized and secure Web-based system of student records for all schools and offices. All schools have implemented Power School including electronic attendance records, current student grade book, final grade reporting (grades 4-8), and historical grades.

In Spring 2006, CUSD implemented a data system, known as DataDirector. This data warehouse holds state content standards along with summative and formative.

Assessments are comprised of the following four core elements:

- Identifying the gap between a student's current learning and future learning

- Providing staff with timely feedback to modify the next steps in instruction
- Developing learning progressions during professional development meetings so teachers can collaboratively know how to use data to guide instruction.
- Involving students and parents in using results to set academic goals.

Benchmark Assessments are given three times a year in English/Language Arts and Mathematics (K-8<sup>th</sup> Grade), Science (6-8<sup>th</sup>, Earth Science, Life Science, Physical Science) and History/Social Science (6-8<sup>th</sup>, Ancient World History, Medieval World and Beyond, United States History Through Industrialism). Answer sheets are collected and processed centrally; student results are accessible online to teachers and administrators from any Internet-connected computer within 24-48 hours after answer sheets are picked up. Reports available include Item Response Report (used to determine areas of strength or need on specific standards); Student Level Report (formatted for individual parent or student conferences); Performance Band Report (reported by standard; by class, school, local district or District); Detailed Performance Report (aggregated achievement levels, for administrators); Assessment Comparison Report (compares student performance, by standards, on pairs of assessments); and the Aggregate Item Performance Report (shows aggregate student performance on individual items at the class, school, local district and District levels).

Central Union “Curricuology” (Curriculum and Technology) Department provide teachers and administrators with the professional development on viewing reports, creating custom Reports, and analyzing and interpreting data so that they use it to inform students and parents as well as guide instruction, provide intervention and monitor academic programs. In order to ensure that explicit time is scheduled for teachers to analyze data from DataDirector and track student progress each site provides an adjusted day each week for teachers (K-8) and administrators to collaborate by grade level teams.

Although Central Union School District is a K-8 district, eighth grade teachers collaborate with High School teachers three to four times a year to review data regarding student progress and curricular needs for incoming freshman. In addition, an Academic Counselor meets with every eighth grade student and parent. The purpose of this conference is to review attendance and academic data from Power School and DataDirector, as well as inform students and parents about the High School Exit Exam and High School graduation requirements.

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- 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.

For more than 15 years, the Central Union School District has been a strong user of technology to provide communication and parental notification between home and school.

The District has provided e-mail account to all staff since 1998. Teacher e-mail address have been made easily available to all parents through handouts, web pages and parent teacher conferences. All teachers are provided with a laptop to make e-mail

correspondence with parents as easy as possible. Student registration forms include a location for parent e-mail address, so that teachers can obtain parent e-mail address.

The District uses PowerSchool as our SIS program. This program allows parents and student to see up to the date grades on assignments in every class. Parents can also choose to have PowerSchool e-mail grade and attendance information automatically on a Daily, Weekly, or Monthly bases.

Every classroom has a VoIP phone so that teachers can call parents at anytime. Parents can also leave voice messages for teacher on the VoIP system at any time.

Central Union School District uses a mass phone calling system called Global Connect. This automated system can call every house hold within an hour in emergency situations. The mass calling system is also used to make class, school and district general announcements as needed.

Recently, the District has started to provide video streaming of events and productions. These streams provide access to family who may be unable to attend the events in person. Specifically, given the District's military connection, this is especially valuable for military members stationed overseas or who may be on cruise, so that activities such as graduation and seasonal performances may be enjoyed via the web-stream. The District will continue to expand this service, and look for additional ways in which to utilize technology to enhance the connectedness of the families which we serve.

**Goal 3j.1: Parents will demonstrate usage of district/school websites and resources to support District Performance Goals 1, 2, 4 and 5 as referenced in section 3c.**

Objective 3j.1.1: Central Union Elementary School parents will demonstrate 75% usage of the district/school websites and resources including online textbooks, SOAR, Renaissance Place and Powerschool Browser Interface by June 2013 as measured by web site counters, parent surveys, online assignment completion and teacher access logs.

**Benchmarks:**

- Year 1: Central Union Elementary School parents will demonstrate 60% usage of district/school websites and resources including online textbooks, SOAR, and Powerschool Browser Interface by June 2011 as measured by web site counters, parent surveys, online assignment completion and teacher access logs.
- Year 2: Central Union Elementary School parents will demonstrate 65% usage of district/school websites and resources including online textbooks, SOAR, and Powerschool Browser Interface by June 2012 as measured by web site counters, parent surveys, online assignment completion and teacher access logs.
- Year 3: Central Union Elementary School parents will demonstrate 75% usage of district/school websites and resources including including online textbooks, SOAR, and Powerschool Browser Interface by June 2013 as measured by web site counters, parent surveys, online assignment completion and teacher access logs.

Implementation Plan				
Activity	Timeline	Person(s) Responsible	Monitoring & Evaluation	Evaluation Instrument

Provide annual parent training at each school site on how to communicate with the school and teachers using PowerSchool, e-mail and phone communications	Start of every School Year. To be held during Back to School Night	Manager of Instructional Technology	Manager of Instructional Technology using Poweschool tools	PowerSchool Usage Report
Office staff will publish web site addresses and other online resources on the weekly bulletin that is distributed to students on paper and sent through parent email addresses.	Bulletin updates are published weekly	Office personnel	Office staff will field parent questions with regard to bulletin information	Office staff will receive fewer questions from parents as information is more widely available on school publications.
School sites and individual classes will offer parent education classes in the evening to review online resources.	Parent education nights will be offered at the beginning of the year to give parents information about online resource access.	Manager of Instructional Technology	Site administrations, office staff and teachers will periodically ask parents through calls and take home publications if they require additional information.	Question included on annual parent survey assessing parent use of online resources

<p>Online resources will be regularly updated on the school and district web sites. Weekly bulletins will be published on the district and school web sites. Parent education nights will be advertised on the district and school web sites. Resource information will be published each trimester in the district newsletter called the Pony Express, which will also be posted on the district web site</p>	<p>The website will be updated montly (at a minimum) and in some cases daily with up to date parent information on online resources</p>	<p>District web master, Manager of Instructional Technology, Office Personnel</p>	<p>Web Site counters will monitor access to the web site. Staff will access the web sites on a regular basis and report any discrepancies to the web master/manager of instructional technology</p>	<p>Staff will regularly review the web site content for accuracy.</p>
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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.

The present master agreement with the certificated bargaining unit, does not compel for an evaluation of a teacher based on his/her ability to implement technology in their curriculum. During the annual goal setting for teachers, the site administration encourages staff to incorporate goals, which encompass technology as part of the Stull Bill evaluation.

As the Technology Plan is a living document, all stakeholders will regularly monitor each component. Semi-annually, the District Technology Committee will reassess the effectiveness of the plan. At monthly school faculty meetings, staff will discuss the implementation and success of the technology plan. As needed, recommendations for revisions to the plan will be made to the District Technology Committee. These recommendations will be considered and addressed in the annual update to the technology plan.

The following strategies will be employed to monitor utilization and implementation of benchmarks and timelines. Each of these strategies will be evaluated by members of the District Technology Committee and school site personnel or specialized evaluation teams on schedules unique to the strategy.

- 1) Technology survey of school staffs, including teachers and site administrators, will occur in annually.
- 2) At a minimum, on site observation by the Manager of Instructional Technology will occur each trimester.

3) Review of technology purchases by schools will be ongoing throughout the year by the Manager of Instructional Technology, the Assistant Superintendent for Business

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#### 4. Professional Development

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

According to the Central Union School District technology philosophy, technology is a tool integral to the curriculum. In order for this to occur, integrated technology and curriculum skills must be taught to staff members. Once this occurs, staff members will be able to educate the students and enable them to become lifelong learners. Reciprocal instruction between staff and students is developing and will be fostered and encouraged to produce a collaborative learning environment.

Central Union School District recognizes and adheres to the technology standards as recommended by the National Educational Technology Standards (NETS) for Teachers and administrators. As cited in the NETS for Teachers, Central Union will coordinate staff development activities centered on the standards as specified below:

##### 1. Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

##### 2. Design and Develop Digital-Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS•S

##### 3. Model Digital-Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.

##### 4. Promote and Model Digital Citizenship and Responsibility

Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices.

##### 5. Engage in Professional Growth and Leadership

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources.

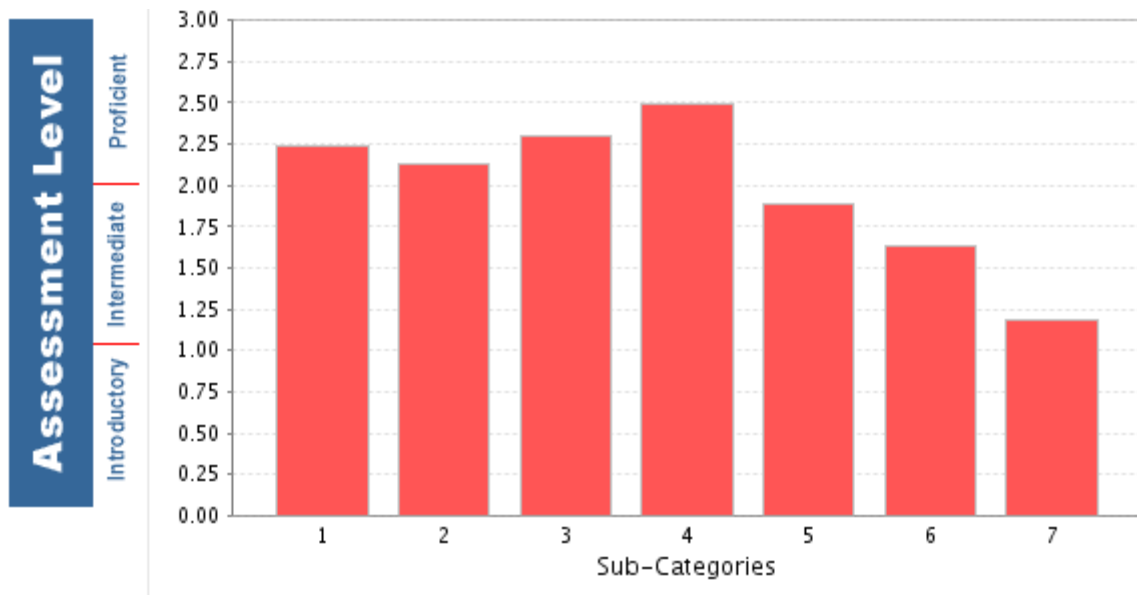
In order to achieve the district curriculum and technology goals, ongoing training will be offered to all staff members to facilitate the integration of technology into all aspects of the educational environment.

Since 1995, the District has provided access to technology to all staff. The District continues to encourage technological integration in all aspects of the work environment. Each year, the District has provided hands-on training to all staff members. Staff members utilize computers on a daily basis.

Each spring, the District surveys all staff members to evaluate what areas of technology training are needed in the future.

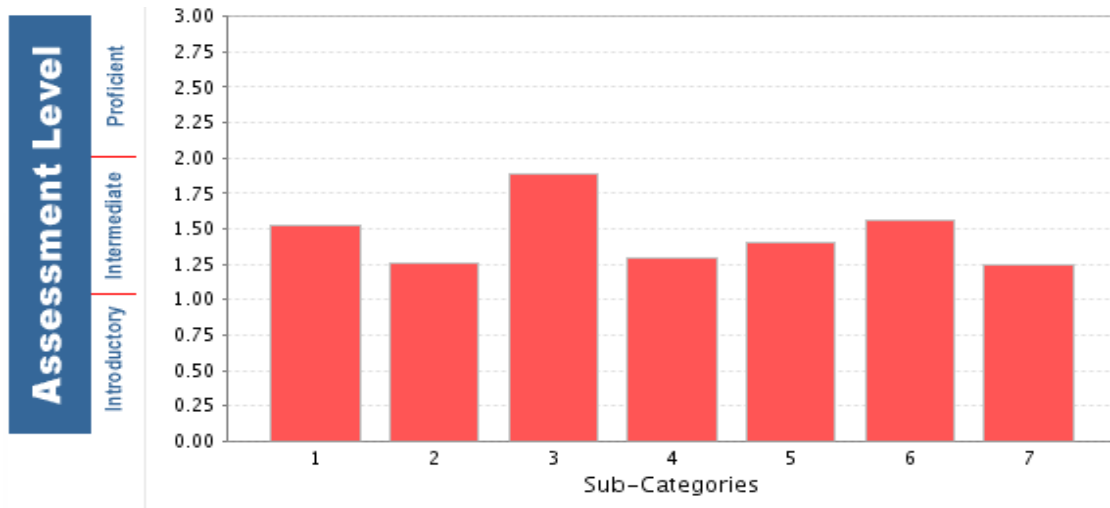
The District teachers participate in an annual technology assessment using the EdTech Profile. As of Fall 2009, 84% of the teachers have been profiled. Analysis of staff skills indicate levels of proficiency in the areas of General computer knowledge and skills, Internet skills, e-mail skills, Word processing skills, Presentation software skills, Spreadsheet software skills, and Database software skills. See overview of general self assessment skills per the EdTech Profile results. Subsequent tables following the general assessment detail, self assessment according to utilization of technology in the educational setting.

Catgory: Computer Knowledge and Skills



Question	Area of Self-Assessment
1	General computer knowledge and skills (Includes 77 in calculation)
2	Internet skills (Includes 77 in calculation)
3	Email skills (Includes 77 in calculation)
4	Word processing skills (Includes 77 in calculation)
5	Presentation software skills (Includes 77 in calculation)
6	Spreadsheet software skills (Includes 77 in calculation)
7	Database software skills (Includes 77 in calculation)

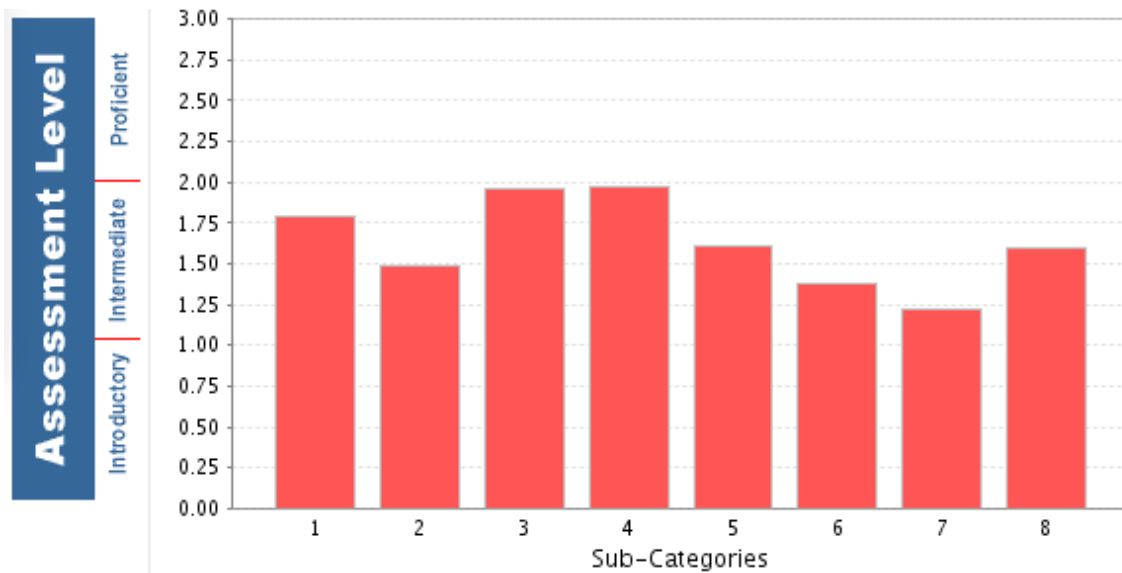
## Standard 9: Using Technology in the Classroom



Question Area of Self-Assessment

- 1 Each participating teacher communicates through a variety of electronic media.
- 2 Each participating teacher interacts and communicates with other professionals through a variety of methods, including the use of computer-based collaborative tools to support technology enhanced curriculum.
- 3 Each participating teacher uses technological resources available inside the classroom or in library media centers, computer labs, local and county facilities, and other locations to create technology enhanced lessons aligned with the adopted curriculum.
- 4 Each participating teacher designs, adapts, and uses lessons which address the students' needs to develop information literacy and problem solving skills as tools for lifelong learning.
- 5 Each participating teacher uses technology in lessons to increase students' ability to plan, locate, evaluate, select, and use information to solve problems and draw conclusions. He/she creates or makes use of learning environments that promote effective use of technology aligned with the curriculum inside the classroom, in library media centers or in computer labs.
- 6 Each participating teacher uses computer applications to manipulate and analyze data as a tool for assessing student learning and for providing feedback to students and their parents.
- 7 Each participating teacher demonstrates competence in evaluating the authenticity, reliability and bias of the data gathered, determines outcomes, and evaluates the success or effectiveness of the process used. He/she frequently monitors and reflects upon the results of using technology in instruction and adapts lessons accordingly.

## Standard 16: Using Technology to Support Student Learning



<u>Question</u>	<u>Area of Self-Assessment</u>
1	Each candidate considers the content to be taught and selects appropriate technological resources to support, manage, and enhance student learning in relation to prior experiences and level of academic accomplishment.
2	Each candidate analyzes best practices and research findings on the use of technology and designs lessons accordingly.
3	Each candidate uses computer applications to manage records and to communicate through printed media.
4	Each candidate interacts with others using e-mail and is familiar with a variety of computer-based collaborative.
5	Each candidate examines a variety of current educational technologies and uses established selection criteria to evaluate materials, for example, multimedia, Internet resources, telecommunications, computer-assisted instruction, and productivity and presentation tools. (See California State guidelines and evaluations.)
6	Each candidate chooses software for its relevance, effectiveness, alignment with content standards, and value added to student learning.
7	Each candidate demonstrates competence in the use of electronic research tools and the ability to assess the authenticity, reliability, and bias of the data gathered.
8	Each candidate demonstrates knowledge of copyright issues and of privacy, security, safety issues and Acceptable Use Policies.

Technology Professional Development is provided on a daily basis in a variety of ways. The Manager of Instructional Technology and computer technicians provide one-on-one instruction or small group instruction especially when new hardware or applications are purchased for teacher, student, and community use. Specific technology trainings are scheduled during District professional development sessions.

Weekly training is available to all staff using internal video conferencing software in iChat. Staff can bring ANY technology question to the training for support. iChat is used so that staff can have two-way video conference training with the Manager of Instructional Technology and Media Services and computer technicians. The use of iChat eliminates the need for travel of staff. iChat allows for video, audio and screen sharing.

Teachers apply and are accepted for special technology training programs like the Google Teacher Academy; then shares with peers at staff meetings, collaboration times, and other scheduled training sessions.

The District supports teachers visiting schools that are using technology in innovative ways and supporting 21st Century learning. Funding is provided for teachers and staff to participate in regional, state, and national technology conferences. Teachers in the district also present at these same conferences and invite visitors to the school sites.

Annually the District Technology and Curriculum Departments will meet to review the staff development training needed to continue the implementation of the technology plan. The technology professional development plans will be presented to the District Curriculum Council and Technology Committee for final approval. Ongoing evaluation and development of the technology training needs will occur throughout the year. Continued training of new technologies and software will occur on an as needed basis.

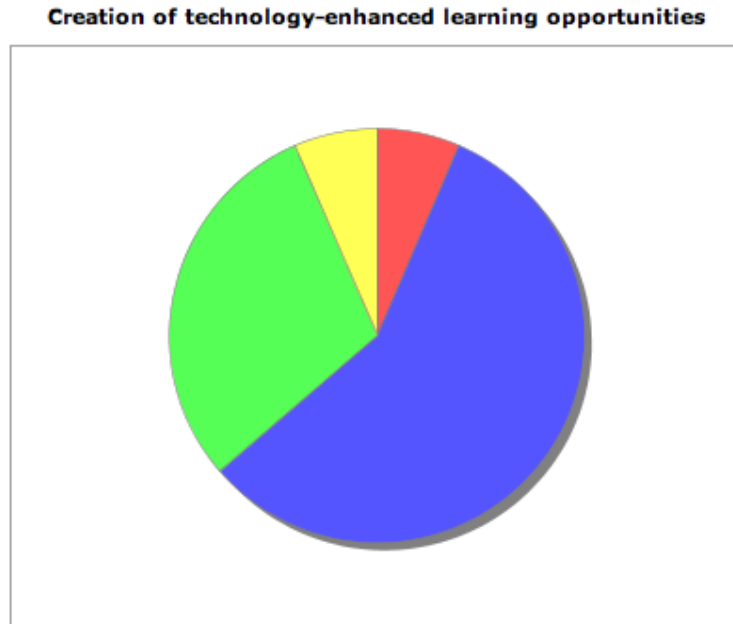
As a result of staff training, student use of technology will increase as demonstrated through student publications and multimedia presentations. Additionally, the annual Technology Assessment Profile will demonstrate increased proficiency on teacher self-evaluation. The District will maintain attendance sheets for all District sponsored technology training.

Each grade level has benchmarks, which provide the ability to monitor student progress in the district technology Scope and Sequence. Teachers, district administrative personnel, and the District Technology Committee will evaluate student progress toward the benchmarks. The benchmark projects will be presented at grade level meetings, technology exhibitions, collaboration meetings, District wide professional development, and the monthly District Curriculum and Technology Committee meetings.

Specific trainings will match the NETS (National Education Technology Standards) for teachers and students.

Specific areas in the Ed-Tech profile, for specific staff skills based upon self assessment, are reflected in the following two areas.

Creation of Technology-enhanced learning opportunities



**Summary**

- Red I do not currently redesign my lessons to include technological resources (6%)
- Blue I know where to find examples of technology-enhanced lessons that align to our curriculum content standards and occasionally use them with my students (57%)
- Green My lessons incorporate the use of technology tools and resources to cover content required by our curriculum in order to provide students with opportunities to locate, evaluate, select and use information to solve problems and draw conclusions (30%)
- Yellow I design my lessons to provide diverse learning opportunities for my students that engage them in planning strategies, locating, evaluating, selecting and using information to solve problems and draw conclusions. Students select and use a variety of technology tools and resources to complete their learning objectives (6%)

Question 23 Personal use of technology to deliver classroom instruction

	Number of Respondents	%age
Daily	20	26
2-4 Days a week	25	33
Between once a week and monthly	22	29
Less than monthly	8	11
Never	1	1

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: Increase Staff computer skill knowledge with presentation software.**

Objective 4b.1.1: By June 2013, 75% of CUESD teachers will be able to provide instruction through electronic resources (including the Internet) to enhance grade level appropriate projects. Teachers will use a technology tool of choice (projector, laptop presentation, iPod, tech tool of choice: projectors, tablets, interactive whiteboards) at a minimum of 2 to 4 times a week to instruct on core subject areas, as measured by the EdTech Profile, Technology Assessment Profile, Personal Use Section ('Deliver Classroom Instruction'), Question 23.

Benchmarks:

- Year 1: By June 2011, 65% of CUESD teachers will be able to deliver instruction using electronic resources including the Internet, to enhance grade level appropriate projects.
- Year 2: By June 2012, 70% of CUESD teachers will be able to deliver instruction using electronic resources including the Internet, to enhance grade level appropriate projects.
- Year 3: By June 2013, 75% of CUESD teachers will be able to deliver instruction using electronic resources including the Internet, to enhance grade level appropriate projects.

<b>Implementation Plan</b>				
<b>Activity</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>	<b>Evaluation Instrument</b>
Hands-on training in the use of laptop presentation including the following software, PowerPoint, iPhoto, and Internet content.	Annual	Manager of Instructional Technology	Curriculum and Instruction, Superintendent	EdTech Profile
Hands-on training in the use of iPods, tablets, responders and interactive whiteboards.	Annual	Manager of Instructional Technology	Curriculum and Instruction, Superintendent	EdTech Profile
Provided hands-on Pod Casting training to staff members.	Annual	Manager of Instructional Technology	Curriculum and Instruction, Superintendent	EdTech Profile

**Goal 4b.2: Site administration to enhance understanding and utilization of interpreting student assessment data.**

Objective 4b.2.1: Increase site administration’s knowledge and awareness of student data through the use of Data Director, by providing 18 hours of training and instruction by the end of the 2010 school year in the construction and analysis of reports in the DataDirector system.

Benchmarks:

- Year 1: By the end of the 2010-11 school year, site administrator will participate in six hours of Data Director training on building reports and analyzing results.
- Year 2: By the end of the 2011-12 school year, site administrator will participate in six hours of Data Director training on building reports and analyzing results.
- Year 3: By the end of the 2012-13 school year, site administrator will participate in six hours of Data Director training on building reports and analyzing results.

<b>Implementation Plan</b>				
<b>Activity</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>	<b>Evaluation Instrument</b>
Provide six hours of DataDirector training on building reports and analyzing results.	Annually through plan duration	Curriculum and Instruction Department	Curriculum and Instruction, Superintendent	Evidence of training held based upon administrative agendas and meetings.

**Goal 4b.3: Integration of StudyWiz as the primary tool for Student to edit, access and store digital information**

Objective 4b.3.1: By June 2013 all students 4th thru 8th grade will use StudyWiz as the primary tool for student to create, edit, access and store digital information.

Benchmarks:

- Year 1: By the end of the 2010-11 school year, 6th thru 8th grade students at Akers will use StudyWiz as their primary tool for student to create, edit, access and store digital information.
- Year 2: By the end of the 2011-12 school year, 6th thru 8th grade students at all schools will use StudyWiz as their primary tool for student to create, edit, access and store digital information.
- Year 3: By the end of the 2012-13 school year, 4th thru 8th grade students at all schools will use StudyWiz as their primary tool for student to create, edit, access and store digital information.

<b>Implementation Plan</b>				
<b>Activity</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>	<b>Evaluation Instrument</b>
Provide hands on	Annually	Manager of	Manager of	StudyWiz Usage

teacher training in the use of StudyWiz		Instructional Technology	Instructional Technology using StudyWiz Reports	Reports
StudyWiz online collaboration. Using video conferencing provide meeting time for teachers to collaborate on the implementation of StudyWiz	Weekly	Manager of Instructional Technology	Teacher responses placed in StudyWiz Teacher Group Blog	Logs of Weekly collaboration participants
Creation of Staff and Student Accounts in StudyWiz	Annually	Manager of Instructional Technology	Manager of Instructional Technology using StudyWiz Reports	StudyWiz Usage Reports

The District has provided access to technology to all staff. The District continues to encourage technological integration in all aspects of the work environment. Each year, the District has provided hands-on training to all staff members. Staff members utilize computers on a daily basis.

Each spring, using the EdTech Profile the District surveys all staff members to evaluate what areas of technology training are needed in the future.

The District realizes the importance of data driven decision making with respect to curriculum and student achievement. The introduction of Data Director has assisted with the District's consolidation of student data, which in turn, has offered the opportunity to further refine the District's curricular scope and sequence. The District will provide professional development to enhance the understanding and utilization of interpreting student assessment data using DataDirector.

StudyWiz allows teachers and students to make the shift to online learning in elementary and junior high schools, which is intuitive and practical and also which helps teachers engage students through the incorporation of dynamic multi-media into lessons, including video, digital photos and sound files. In the 2009-2010 school year the District is piloting StudyWiz. This plan outlines the implementation of StudyWiz as the primary tool for student to create, edit, access and store digital information.

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.

As the Technology Plan is a living document, all stakeholders will regularly monitor each component. Semi-annually, the District Technology Committee will reassess the

effectiveness of the plan. At monthly school faculty meetings, staff will discuss the implementation and success of the technology plan. As needed, recommendations for revisions to the plan will be made to the District Technology Committee. These recommendations will be considered and addressed in the annual update to the technology plan.

The following strategies will be employed to monitor utilization and implementation of benchmarks and timelines. Each of these strategies will be evaluated by members of the District Technology Committee and school site personnel or specialized evaluation teams on schedules unique to the strategy.

- 1) Technology survey of school staffs, including teachers and site administrators, will occur annually.
- 2) At a minimum, on site observation by the Manager of Instructional Technology will occur each trimester.
- 3) StudyWiz has Usage Reports which will be run monthly by the Manager of Instructional Technology.

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## 5. Infrastructure, Hardware, Technical Support, and Software

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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:**

With over 800 student computers, Central Union School District currently has a 2.5:1 student to computer ratio. Every classroom has a minimum configuration of (2) student computer, (1) teacher computer, internet access, a printer, a television and VCR or DVD player. 97% of the classrooms have an LCD projector.

Every student has access to on campus computer labs, which include internet access and printing capabilities. The computer labs are utilized by all classes during scheduled times. Each school has a variety of stationary and mobile labs including; (2) stationary labs (1) mobile lab at Akers Elementary, (2) stationary labs (1) mobile lab at Neutra Elementary, (1) stationary lab (1) mobile lab at Central Elementary and (1) stationary lab (3) mobile labs at Stratford Elementary.

The computer labs are utilized by all classes during scheduled times. Current software is available for all grade levels to enhance classroom curriculum, as well as exposing the lower grades to computers. Site licensed CD's are stored on local servers for easy access by all students.

Central Union Elementary School District currently has thirteen (13) Macintosh OS X Servers. These servers provide student and administration access to data on the network, as well as providing access to the Internet via the Wireless WAN connection. Three of these servers also maintain the e-mail system and Web/Streaming Video server. In addition, the District has a LightSpeed Filter to monitor and filter all content being sent and received by student.

Every classroom in the District is equipped with a telephone and voice mail through our VoIP system. Telephones allow users to make and receive outside calls.

As technology is quickly improved, the District upgrades the technology about every 5-6 years, replacing approximately 20 % of the hardware each year. Currently there are about 800 computers in the hands of students and teachers. Each year the District purchases over 150 new computers and removes approximately 120-150 each year as surplus. By refreshing one fifth of the technology each year, the District strives to ensure that students are using current technology on a regular basis.

**Existing Internet Access:** Central Union Elementary School District has entered into a contractual arrangement with Kings County Office of Education to provide access to the Internet. This connection is through a high-speed wireless signal providing 100mb connection providing adequate speed for the population of staff and students at Central Union Elementary School District. KCOE also provides a high-speed wireless signal providing 100mb connection from Central Union Elementary School District and Central Elementary to the other (3) schools in the District (Akers Elementary, Neutra Elementary and Stratford Elementary).

In order to provide the quality and quantity of service to students listed in the Curriculum Components of this Technology Plan the services provide by the Kings County Office of Education through E-Rate funding is critical. Without the ongoing services provided by the Kings County Office of Education Internet access to all classrooms, computers, students and teachers would some become unmanageable and unusable.

As students and teachers expand their technology skills and usage, it will become increasingly important to be sure that the Internet bandwidth continues to grow with their curricular needs. With over 800 computers accessing the network at 100 Mbs connecting to the network and greater Internet for data, audio and video files, the students and teachers place high demands on Internet access.

Currently with the use of (4) school wide LANs and a District wide WAN, all classrooms and school offices are connected and have access to the Internet and student/teacher servers, including; (2) stationary labs (1) mobile lab at Akers Elementary, (2) stationary labs (1) mobile lab at Neutra Elementary, (1) stationary lab (1) mobile lab at Central Elementary and (1) stationary lab (3) mobile labs at Stratford Elementary.

There are approximately 800 total computers actively connected throughout the District. Each LAN is made up of a fiber-optic backbone connecting to core switches, which then terminate in smaller unmanaged switches at the classroom level. All computers are connected with Cat-5 cable to the LAN utilizing 10/100base-T architecture and speed (Stratford Elementary has all computers connected via Cat-6 cable to the LAN utilizing 10/100/1000base-T architecture.)

Each of the (4) schools has wireless access in every classroom. Wireless access points are spread throughout the schools providing coverage. As Central Union School District continues to add more laptops and wireless devices into the classroom, it will become necessary to increase wireless coverage and bandwidth.

Since 1998 Central Union School District has used district funds combined with E-rate funding to continue the growth and performance of the LAN by providing switches, wireless access points and wiring for classroom access to the Internet. As additional computers and faster computers are added to the network it will be necessary to continue the growth and development of the network infrastructure (wiring, switches and routers). This can only take place with the continued support from funding such as E-rate.

School site wiring and switches at Central, Akers and Neutra will need to be replaced in the next 1-3 years. Using E-Rate funding, Stratford network wiring and switches were replaced in the summer of 2006. Maintenance of servers, switches and network wiring is an ongoing expense.

Most of the surplus technology is still in good working order. Rather than disposing of the surplus equipment Central Union strives to locate homes for the technology within the local community. Often, these computers are given to students as incentives for good work and behavior.

Technology support for the District includes two (2) Technology Support Specialist to support all school sites, one (1) Computer Repair Technician to provide repair and perform warranty work, one (1) Data Specialist Technician to maintain student records and testing results, one (1) Network Technician to maintain the LAN's and WAN, one (1) Server Administrator, one (1) Manager of Instructional Technology and Media Services, and one (1) Assistant Superintendent of Human Resources, Special Education, &

Technology to oversee the implementation of technology District wide. This support staff is cross-trained to handle the hardware and software problems that occur.

This support staff is able to provide software repair within a day and hardware repair within 2-5 days. Repair needs are logged into a tracking system and technicians respond as needed. District technicians are trained and authorized to do all warranty work on the computer equipment. This dramatically reduces the amount of down time for students and teachers.

**Existing Electronic Learning Resources:** All students and staff have access to network resources and programs for educational projects. Development of computer skills through the use of word processors, spreadsheets, publishing software, Internet and multimedia applications is currently available. Currently available software includes: MS Office Suite, KidPix, Kidspiration, Inspiration, Accelerated Reader, STAR Math, Reading and Early Literacy, iLife Suite (iPhoto, iMovie, iDVD, iWeb, iChat, iCal, iTunes, GarageBand), Type to Learn 3, Photoshop Elements 3 and Macromedia Studio (Dreamweaver, Flash, Freehand and Fireworks). Web subscriptions include: StudyWiz, Google, Atomic Learning, Unitedstreaming, Quia, and other Web 2.0 Tools.

PowerSchool/PowerTeacher: During the 1999 school year, the District adopted PowerSchool to serve as the student attendance and accounting system. PowerSchool/PowerTeacher is a web-based, cross-platform application. PowerSchool provides easy-to-use communication tools, which allow access of student records and student progress to a variety of stakeholders (students, parents, teachers, and administrators). PowerTeacher is the integrated gradebook, which provides teachers an electronic recording system to aid teacher workflow. Parents have the ability to access their child's present status for grades and class work via the web interface. PowerTeacher gives a vehicle to provide timely and relevant information to assist with student achievement and success.

Standardized Testing and Reporting (STAR): The District uses technology in several ways to prepare for and analyze student achievement data. Prior to the testing window, student data is exported from the student accounting package, properly formatted and then forwarded electronically to have the student demographic data accurately recorded for the purposes of Pre-Identification (Pre-ID) for STAR participation.

DataDirector: During the 2006 school year, Central Union partnered with Achieve! Data Solutions, LLC, to purchase DataDirector This program is a customizable web-based data warehouse and assessment management systems an educational company dedicated to building technical tools that really work for educators. Within the DataDirector solution, staff will have access to a variety of student modules, including, student assessment, student demographic assessment profiles, exam features, and state standards reporting. The integration of this solution, along with other data and assessment tools, will allow staff to quickly view, aggregate, disaggregate and report on student academic performance across a number of variables. As the District continues to integrate the elements of DataDirector the expectation will continue to allow the ability of staff to create assessments, which are linked to state standards and will provide item analysis for the purposes of data-based instructional and curricular decisions.

Renaissance Learning: Each of the school sites within the Central Union School District has access to a reading program for the purposes of assessing student reading level, monitoring reading comprehension, and motivating student reading skills. With this

reading program, staff has access to reliable, and objective information regarding each child's literacy skills. Through continual use of this program, students are guided through reading progress and growth, by ensuring that the material selected for the students to read is within the range appropriate for their skill, which in turn, allows each student to be challenged appropriately without creating frustration in the task. The ease of access to the computers stationed throughout the campus (in the classroom, library, or lab) affords each child the opportunity to respond to the literature and gives the teacher immediate feedback on student performance. In the Renaissance Learning Suite, the **Accelerated Reader (AR)** shell is the most utilized product. AR's advanced technology helps students and staff:

- Makes essential reading practice more effective
- Personalizes reading practice to each student's current level
- Assesses students' reading with four types of quizzes: Reading Practice , Vocabulary Practice , Literacy Skills , and Textbook Quizzes.
- Builds a lifelong love of reading and learning.

Alexandria: Alexandria is a web based library automation software solution used by each of the libraries in the Central Union School District. This application provides an easy to use web interface, which gives students and staff real time access to titles contained within the school libraries. Searching may be done based upon keyword or sound-alike words, and the program provides easy access to titles for the student reading program Accelerated Reader. The tools of Alexandria offer each library clerk the ability to completely manage a fully integrated library program. Reports on student usage and patterns may be quickly generated by the library clerk for distribution to staff and administration.

E-mail Access: E-mail is a very powerful way for administrators, teachers and parents to communicate. Every administrator and teacher has a computer at his or her desk that is connected to the network and to e-mail. Staff through out the district, check their e-mail accounts two to three times per day. All teacher and administrator e-mail accounts are listed on the District and School Site web pages.

QUIA: *Quia* is an educational website which provides the educational technology giving teaching staff the ability to create customized educational software online. *Quia* delivers the ability for staff to create assessments, which also allow for individual student records and analysis for the performance of these online assessments. Further, *Quia* serves as a website host for staff to place information regarding assignments and upcoming events providing an additional electronic communication tool to keep parents and students informed about school assignments and tasks through the calendar feature of this software.

Atomic Learning: At the close of the 2006 school year, a subscription was purchased for an online training tool known as Atomic Learning. Atomic Learning provides web-based software training and curriculum resources for more than 100 applications students and educators use every day. This web-based solution focuses on answering the common questions of users have when learning popular software packages. Within the Atomic Learning arena, the developer provides thousands of short, easy-to-understand tutorial movies and a library of curriculum resources that can be used as an integral part of a

professional development program, a valuable curriculum supplement, and an anytime/anywhere software training resource.

Student Electronic Portfolio: All student work is saved to a centralized school server. When a student sits down at any of the 3-6 computers in the classroom or in the computer lab and they log into their account on the server. When they complete work it is saved into their folder on the server. From any computer in the school the teacher can log into the server and access the work the student has created. Teachers check the student work on a quarterly basis. At the end of each school year, all student work is archived so that the server can be cleaned. Teachers have access to archived data from previous years.

Discovery Education UnitedStreaming: Discovery Education provides *UnitedStreaming* as a digital video-based learning resource for each of the school sites within the Central Union School District. With Discovery Education *UnitedStreaming*, staff has the ability to acquire on-demand access to 50,000 content-specific segments from 5,000 full-length educational videos. Streaming video may be searched by keyword, subject, grade or curriculum standards and provide content in the curricular areas of Secondary Math skills, Science, and Language Arts, and Current events videos.

SOAR (Student Online Achievement Resources): SOAR is an innovative program available for students in 3rd - 8th Grade that makes it easy for parents to play an active role in their children's education. SOAR is designed for military families, and is easily accessible worldwide. Students take an assessment aligned to state standards, and SOAR directs them to individualized tutorials to improve skills where needed. Parents can monitor their children's progress from anywhere, and are provided with resource materials. SOAR Home is an internet-based application, which is easily accessible worldwide.

Parent components include:

- o Easy access to their children's accounts
- o Links to military installations, transition resources and school websites.
- o Resources for at-home learning activities
- o Message board
- o State-specific resources, such as state learning standards
- o Links to Department of Education and other educational resources websites

Student components include:

- o Assessments aligned with state standards to identify their strengths and weaknesses in reading and mathematics
- o Tutorial lessons to reinforce and review skills not mastered

Web 2.0 Tools: Weblogs, Wikis, Podcasts: Web 2.0 tools are web publishing and information gathering tools. These tools provide continuous learning. The Central Union School District uses the Web 2.0 tools to engage/motivate students in their learning, to focus the instruction on the California standards and to assess student acquisition and

knowledge. These tools teach and emphasize critical reading and writing skills. Because students need to use a variety of technological resources to gather and synthesize information and to create and communicate knowledge, it is vital that students acquire the skills necessary for life long learning. Wikis are a collaborative web space where anyone can add and edit content that has already been published. Weblogs (Blog) are websites that allow an author to publish instantly to the Internet from any Internet connection. This is a special type of web page that can be created and easily updated using a web browser. Each new entry has a date and a comment section where visitors can leave comments to the author of the blog. Podcasts provide the ability to create and distribute broadcasts containing spoken or visual information. Web 2.0 Tools are currently being used in a variety of content areas in the Central Union School District. Dialogue and professional discussion are presently occurring with staff through this medium. Teachers are using these tools to differentiate lessons. Students respond in small groups to literature they are reading. Students are creating podcasts on science topics and sharing with peers. Homework assignments are handed in through a weblog or wiki. Students on independent study are able to get class information from a blog/wiki/podcast then submit work. Students are posting his/her work on a blog/wiki/podcast and the teacher grades online.

**Existing Technical Support:** Technology support for the District includes two (2) Technology Support Specialist to support all school sites, one (1) Computer Repair Technician to provide repair and perform warranty work, one (1) Data Specialist Technician to maintain student records and testing results, one (1) Network Technician to maintain the LAN's and WAN, one (1) Server Administrator, one (1) Manager of Instructional Technology and Media Services, and one (1) Assistant Superintendent of Human Resources, Special Education, & Technology to oversee the implementation of technology District wide. This support staff is cross-trained to handle the hardware and software problems that occur.

This support staff is able to provide software repair within a day and hardware repair within 2-5 days. Repair needs are logged into a tracking system and technicians respond as needed. District technicians are trained and authorized to do all warranty work on the computer equipment. This dramatically reduces the amount of down time for students and teachers.

In order to provide students with the tools to achieve the curricular components set forth in this document and future technology needs, adequate hardware and software must be readily available. Qualified training and technical support must also be readily available for students and staff.

5b. 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.

**Hardware Needed:**

For continued implementation of the District's goals and integrated plans of technology and curriculum, it will be necessary to continue with up-to-date student and staff

computers. As outlined in the benchmarks and timelines below, the District has a prospective plan for replacement of dated technological equipment with more current items in order to meet the District need.

Central Union Elementary School District currently has thirteen (13) Macintosh OS X Servers. 80% of the file servers in the District are over 4 years old and will need to be replaced in the next 1-3 years. When the servers are replaced drive space and function will have to be evaluated and planned to carry the server 3-5 years.

As technology is quickly improved, the District upgrades the technology about every 5-6 years, replacing approximately 20 % of the hardware each year. Currently there are about 800 computers in the hands of students and teachers. Each year the District purchases over 150 new computers and removes approximately 120-150 each year as surplus. By refreshing one fifth of the technology each year, the District strives to ensure that students are using current technology on a regular basis.

#### **Electronic Learning Resources Needed:**

As the District moves forward with the evaluation of the 21st century learner and the needs for the classroom teacher, it will be necessary to investigate, pilot, and add additional electronic resources in the classroom in order to meet the education needs of the students as outlined in this plan. It will be necessary to explore the purchase of the iPod Touch device to provide equitable access to technology and determine the most effective curricular use of this item for various student populations. The District will look into various products and companies for the 'Digital Classroom' (i.e., student responders, whiteboards, document cameras, and tablets). Consideration for item purchase will be given to elements of product support and professional development which are included from the vendor for classroom implementation.

#### **Networking and Telecommunications Infrastructure Needed:**

Maintenance of servers, switches and network wiring is an ongoing expense. School site wiring and switches at Central, Akers and Neutra will need to be replaced in the next 1-3 years. Most network switches through out the district are rapidly approaching their EOL (End of Life). 70% of the core switches at Akers, Central and Neutra are over 9 years old. School Site wiring at Akers, Central and Neutra is over 12 years old. Using E-Rate funding, Stratford network wiring was replaced in the summer of 2006. Stratford switches will need to be replaced in the next 1-3 years.

#### **Physical Plant Modifications Needed:**

The current physical plants of Akers, Central, Neutra and Stratford schools meet the Districts needs for electricity, conduit pathways and desktop space. The District has maintained about 800 computers for almost 10 years. We have good track record of being able to physically support our computers.

If new buildings are added, additional power and conduit pathways will need to be provided.

#### **Technical Support Needed:**

Central Union School District retains technicians that are trained and certified to maintain and perform warranty work on the District computers. The District will also maintain contracts with outside companies to provide maintenance and support for the following items:

- Servers (including e-Mail, Web, Data, VoIP and Internet Filter)
- Core Switches
- Software Support (PowerSchool, DataDirector, Renaissance Learning, Alexandria, etc.)

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.

**Year 1 Benchmark:** Apply for E-Rate funds for Internet Access at all school sites. Apply for E-Rate funds to replace all switches and wireless access at Stratford School. Replace all K-3 grade teacher laptop as per the District 4 year rotation cycle. Replace 12.5% of the student computers each year. Provide on site technical support for hardware and software issues. Provide maintenance and support of all servers. Pilot Digital Classroom and iPod Touch labs.

Recommended Actions/Activities	Timeline	Person(s) Responsible
Apply for E-Rate funds for Internet Access at all school sites.	December	Manager of Instructional Technology
Apply for E-Rate funds to replace all switches and wireless access at Stratford School.	December	Manager of Instructional Technology
Purchase, configure, and deploy new laptops for all K-3 grade teachers	Summer 2010	Technology Department
Purchase, configure, and deploy 100 new student computers	Summer 2010	Technology Department
Purchase Pilot Program of four (4) Digital Classrooms (student responders, document camera, digital white board)	Summer 2010	Curriculum and Technology Department, School Sites
Purchase three (3) scanners for utilization with DataDirector and theme test scanning	Summer 2010	Curriculum and Technology Department
Purchase two (2) iPod Touch labs (of 40 iPod touch devices and two laptops) for utilization with special education Students	Summer 2010	Curriculum and Technology Department

**Year 2 Benchmark:** Apply for E-Rate funds for Internet Access at all school sites. Replace 25% of the student computers each year. Provide on site technical support for hardware and software issues.

<b>Recommended Actions/Activities</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>
Apply for E-Rate funds for Internet Access at all school sites.	December	Manager of Instructional Technology
Purchase, configure, and deploy 200 new student computers	Summer 2011	Technology Department

**Year 3 Benchmark:** Apply for E-Rate funds for Internet Access at all school sites. Replace all 4-8 grade teacher laptop as per the District 4 year rotation cycle. Replace 12.5 % of the student computers each year. Provide on site technical support for hardware and software issues. Provide maintenance and support of all servers.

<b>Recommended Actions/Activities</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>
Apply for E-Rate funds for Internet Access at all school sites.	December	Manager of Instructional Technology
Purchase, configure, and deploy new laptops for all 4-8 grade teachers	Summer 2012	Technology Department
Purchase, configure, and deploy 100 new student computers	Summer 2012	Technology Department

5d. Describe the process that will be used to monitor Section 5b and the annual benchmarks and timeline of activities including roles and responsibilities. Monitoring the progress of infrastructure, hardware, software and technical support will be an ongoing process for the Assistant Superintendent, Manager of Instructional Technology and Media Services, and the Technology Committee. Monitoring the integration of curriculum and technology will be an ongoing process.

The Technology Committee meets once a month and will review the current progress and problems encountered in the District wide implementation of technology. This committee will review current and planned Infrastructure, Hardware, Software and Technical Support activities to see that they meet the goals set forth in this document. There is cross over between the Technology Committee and Curriculum Council. For educational technology integration, a member from the Curriculum Council participates as a member on the Technology Committee. Likewise a teacher from technology sits on the Curriculum Council. Site and District administrators participate in both of these guiding committees. Additionally, any site purchases of technology (either hardware or software) will be reviewed by the administrative group (District Level administrators and site level administrators) to ensure adherence with the plan and goals as stated herein.

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## 6. Funding and Budget

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### 6a. List of established and potential funding sources.

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**Established Funding Sources:** For the past twelve years, the Central Union School Board has been extremely supportive in providing technological tools for the classroom. The District has and maintains a 3:1 student to computer ratio. Each year the District budget has provided funding for approximately 120-150 new computers, expanding network development, ongoing staff development, and software upgrades. As fiscal restraints are imposed based upon current economic situation, the District and sites will examine all expenditures from available District and Site resources in order to leverage available funds to continue maintenance of exiting technology status and to further pilot expansion of promising technology implementation.

The District budget provides for technical support at the school sites and on a District level. On a District level, it has provided for network wiring, hardware repair, server maintenance, and software support. Each school site is afforded a trained technology support specialist. The District constantly evaluates the personnel assigned to the technology support areas so that adequate service is provided to maintain the capacity to use technology in an instructional setting.

The District aggressively seeks and applies for State and Federal funding in the areas of hardware, software and training. Having two schools on a military installation, the District applies for and receives Department of Defense Impact Aid funding which is used to support the technology program. Since its inception, the District has participated in the E-rate program to continue the infrastructure development.

As technology is continually evolving, the District has and will continue to upgrade all of the technology every 5-6 years. Each year approximately 20% of the hardware is replaced. When new technology is purchased, funds are set aside for software, repairs and maintenance. Much of the technology that goes into surplus status is still in good working order. Rather than disposing of the surplus equipment, at that time, the District continues to keep equipment capable of meeting the learning and educational goals of the District in use, until a time in which the technology is no longer able to meet the demands of either software or application functionality.

Monitoring the progress of Funding and Budgets will be an ongoing process for the Technology Committee, Manager of Instructional Technology and Media Services, and Assistant Superintendents.

The Technology Committee meets once a month to review the current progress and problems encountered in the District-wide implementation of technology. The committee reviews current plans for purchase and surplus of hardware and software to ensure that the goals set forth in this document are met.

The Manager of Instructional Technology and Media Services, Assistant Superintendent &ndash; Human Resources, Special Education, & Technology and the Assistant Superintendent of Business will be responsible for the planning and execution of the Funding and Budgets activities.

**Potential Funding Sources:**

Since its inception, the District has participated in the E-rate program to continue the infrastructure development. With an average E-Rate discount of 73%, the District normally receives about \$125,000 in discounted services thru the E-Rate program.

The District is always seeking and applying for local, state or federal grants that may be able to aid the students of Central Union School District.

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

Item Description	Year 1	Year 2	Year 3	Funding Source Including ERate
<b>2000-2999 Classified Salaries</b>				
Technology Support Staff	\$300,000	\$300,000	\$300,000	District
<b>4000-4999 Materials and Supplies</b>				
Software	\$90,000	\$90,000	\$90,000	Grants and District
<b>5000-5999 Other Services and Operating Expenses</b>				
Internet Access	\$80,000	\$80,000	\$80,000	ERate / District
Phone Service (VoIP, Cell, Wireless)	\$35,000	\$35,000	\$35,000	ERate / District
Server and Switch Maintenance	\$6,000	\$6,000	\$6,000	ERate / District
Staff Development	\$40,000	\$40,000	\$40,000	EETT / District
<b>6000-6999 Equipment</b>				
Computer Hardware Replacement	\$150,000	\$150,000	\$150,000	District
Server	\$20,000	\$20,000	\$20,000	District

Replacement				
Switch Replacement (Akers, Central, Neutra)	\$30,000	\$30,000	\$30,000	District
Switch Replacement (Stratford)	\$100,000	\$0	\$0	ERate
Totals:	\$851,000	\$751,000	\$751,000	

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

As technology is continually evolving, the District has and will continue to upgrade all of the technology every 5-6 years. Each year approximately 20% of the hardware is replaced. When new technology is purchased, funds are set aside for software, repairs and maintenance. Much of the technology that goes into surplus status is still in good working order.

Rather than disposing of the surplus equipment, the District strives to find homes for the technology within the community. Many surplus computer are awarded to students thru incentive programs.

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.

Monitoring the progress of Funding and Budgets will be an ongoing process for the Technology Committee, Manager of Instructional Technology and Media Services, and Assistant Superintendents.

Central Union School District only qualifies for EETT Formula moneys. This money is spent for Technology Staff Development and is monitored and reported to the State of California by the Assistant Superintendents of Business Services.

Because the Technology Plan is a living document, all stakeholders will regularly monitor each component. The Technology Department will meet monthly to plan, review, and monitor the progress to the department and the Technology Plan.

Semi-annually, the District Technology Committee will reassess the effectiveness of the plan. At monthly school faculty meetings, staff will discuss the implementation and success of the technology plan. As needed, recommendations for revisions to the plan will be made to the District Technology Committee. These recommendations will be considered and addressed in the annual update to the technology plan.

The Assistant Superintendent – Human Resources, Special Education, & Technology will provide monthly reports to the School Board and the Superintendent.

## **7. Monitoring and Evaluation**

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

As the technology plan is an integrated document involving several departments, the responsibility for monitoring and plan adherence rests with several individuals.

## **8<sup>TH</sup> GRADE EVALUATION**

Eighth grade students who successfully complete the District technology curriculum are given a comprehensive technology test. If passed the student can take an advanced technology class at Lemoore High School.

## **STUDENT EXHIBITION**

Throughout the school year student technology work is showcased. Students' work is presented at the following events: School Board Meetings, Technology Committee Meetings, School Site Councils, Technology Fairs and more. Student work is also posted for the world to see on the school site web pages. This is critically important for the student body, as many of the parents in the school district are in the Armed Forces, and the web posting allows parent to remain connected with their children while they are serving overseas.

## **TEACHER EVALUATION**

The present master agreement with the certificated bargaining unit, does not allow for an evaluation of a teacher based on his/her ability to implement technology in their curriculum. During the annual goal setting for teachers, the site administration encourages staff to incorporate goals, which encompass technology as part of the Stull Bill evaluation. Annually the district will review the data from EdTech Profile to monitor progress in meeting staff development goals per the data from staff assessment.

Teachers who are actively using technology with their classroom are rewarded with additional hardware and conference opportunities.

## **TECHNOLOGY PLAN IMPLEMENTATION**

Because the Technology Plan is a living document, all stakeholders will regularly monitor each component. Semi-annually, the District Technology Committee will reassess the effectiveness of the plan. At monthly school faculty meetings, staff will discuss the implementation and success of the technology plan. As needed, recommendations for revisions to the plan will be made to the District Technology Committee. These recommendations will be considered and addressed in the annual update to the technology plan.

The Assistant Superintendent – Human Resources, Special Education, & Technology will provide monthly reports to the School Board and the Superintendent.

7b. Schedule for evaluating the effect of plan implementation.

Monitor/Eval	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Technology Department Review	X	X	X	X	X	X	X	X	X	X	X	X
Assistant Superintendent Report		X	X	X	X	X		X	X	X	X	X
School Board Report		X	X	X	X	X		X	X	X	X	X
Technology Committee Review		X				X				X		

Because the Technology Plan is a living document, all stakeholders will regularly monitor each component. The Technology Department will meet monthly to plan, review, and monitor the progress to the department and the Technology Plan.

Semi-annually, the District Technology Committee will reassess the effectiveness of the plan. At monthly school faculty meetings, staff will discuss the implementation and success of the technology plan. As needed, recommendations for revisions to the plan will be made to the District Technology Committee. These recommendations will be considered and addressed in the annual update to the technology plan.

The Assistant Superintendent – Human Resources, Special Education, & Technology will provide regular reports to the School Board and the Superintendent.

7c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.

Monitoring and Evaluation of the progress of infrastructure, hardware, software and technical support will be an ongoing process for the Assistant Superintendent, Manager of Instructional Technology and Media Services, and Technology Committee. Monitoring the integration of curriculum and technology will be an ongoing process with both the Technology and Curriculum Departments overseeing implementation of the plan.

The Technology Committee will meet once a month reviewing the current progress and problems encountered in the District wide implementation of technology. They will review current and planned Infrastructure, Hardware, Software and Technical Support activities to see that they meet the goals set forth in this document. There is cross over between the Technology Committee and Curriculum Council. For educational technology integration, a member from the Curriculum Council participates as a member on the Technology Committee. Likewise a teacher from technology sits on the Curriculum Council. Site and District administrators participate in both of these guiding committees.

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## 8. Collaborative Strategies with Adult Literacy Providers

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### **Adult Literacy and Community Outreach**

Adult Literacy programs are primarily provided through the affiliation with the Lemoore Joint Union High School District, which is the school where promoted students from the district attend high school. Central Union coordinates a Community Based English Tutoring (CBET) grant in joint collaboration with Lemoore High School. The purpose of the Community-Based English Tutoring (CBET) Program is to provide programs for adult English language instruction to parents or other members of the community.

Most of the surplus technology continues to be in good operational order. Rather than disposing of the surplus equipment Central Union School District strives to find homes for the equipment within the community. Often these computers are given to students as incentives for good work and behavior.

Central Union maintains a comprehensive website, which serves as a hub for information about the District. Central Union Elementary School District's website hosts a homepage for each school and provides a variety of resources and information for parents, staff, students, and community members.

Central Union School District will continue to collaborate with and solicit input from the various adult literacy providers in the community, including representatives of Lemoore Joint Union High School District, West Hills College, and the College of the Sequoias. With the cooperation of the adult literacy providers that serve the local community, Central Union will provide links on the district website to adult literacy resources within the community.

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

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

Students of today are vastly different from children of yesterday, and thus, while educators cannot ignore the basic skills in developing each child's potential, this must be done within the context of the digital age of the world in which the children of today reside. Reading, writing, and math are still the fundamental building blocks for each child's success, however, research shows that children gain these skills faster and better when using a technology-based curriculum. Whether students are just entering the world of reading and math or preparing for college entrance, technology can better prepare them for success.

*CEO Forum (2001). The CEO Forum School Technology and Readiness Report: Key Building Blocks for Student Achievement in the 21st Century.*  
<http://www.ceoforum.org/downloads/report4.pdf>.

This report concludes that effective uses of technology to enhance student achievement are based on four elements: alignment to curricular standards and objectives, assessment that accurately and completely reflects the full range of academic and performance skills, holding schools and districts accountable for continuous evaluation and improvement strategies, and an equity of access across geographic, cultural, and socio-economic boundaries. State, district, and site policies, programs, and resources must be consistently aligned to meet educational objectives. Technology transforms the learning environment so that it is student-centered, problem and project centered, collaborative, communicative, customized, and productive. Students must acquire 21st century skills in order to thrive in the new knowledge-based economy, including technological and information literacy, inventive thinking, effective communication and high productivity skills.

The Central Union School District maintains strict alignment of instruction with state content standards. The Technology Plan bases all instruction on state content standards. Software is chosen to align with state standards. Student achievement is monitored through trimester benchmark tests. Through ongoing data collection and analysis, the District will continuously monitor its attainment of the goals and objectives of the Technology Plan, and will report results annually to the superintendent, the Board of Education, and the public. Throughout the Plan, attention is paid to providing equitable access to all students in the community, including students in special populations. The District will implement a plan for staff training and instruction of students in information literacy.

With the curricular focus of Central Union School District targeting differentiated instruction, the integration of computer-assisted-software programs will allow for the adaptation of instruction to the individual level of student competency. By producing more engagement and differentiation with technology, students in turn will spend more time on activities that are at the appropriate instructional level which in turn leads to a stronger and more efficient mastery of basic skills.

Browsers, of course, bring a world of information to students. Search engines help students locate information efficiently; and spreadsheets, databases, and concept maps help them learn to organize, interpret and use information in new ways. Multimedia tools help students express their ideas creatively and engage them beyond traditional means. This integrated approach to student produced learning is not a frill but rather is a powerful tool to allow students to express and process complex ideas more clearly and intuitively than they could with text.

*Williams, T., Kirst, M., Haertel, E., et. al. (2005). Similar Students, Different Results: Why Do Some Schools Do Better? A large-scale survey of California elementary schools serving low-income students. Mountain View, CA:  
EdSource: [http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/1b/d3/8c/pdf](http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/d3/8c/pdf)*

This study examined 257 California elementary schools with similar student populations (high percentages of low income students and English Learners) to determine which educational practices are most strongly associated with higher levels of student achievement (using 2005 API results). The four practices most highly correlated with higher API scores were implementing a coherent, standards-based instructional program; ensuring availability of instructional resources (up-to-date materials and supplementary instruction for struggling students); using assessment data to improve student achievement and instruction; and prioritizing student achievement.

Central Union School District will integrate technology use with all four of the highest ranked practices, including use of state-approved/adopted software and correlating software and technology/information literacy skills; increasing student access to technology, including web-based curriculum programs and online learning systems, streaming media, videoconferencing, and instructional programs for struggling students; emphasizing the automation of student assessment and data reporting and analysis; and evaluating the entire technology program based on student achievement.

The skills that people need to master for life are changing. Students need to learn to read critically and to speak and write persuasively. With curricular technology integration, students are able to apply mathematical and scientific principles to solve real-world problems. Students are also provided the opportunity to mine the World Wide Web effectively and efficiently and to understand the meaning embedded in charts, graphs, audio, video, and animation.

These approaches to learning are highly beneficial. From the disciplines of cognitive science and brain-based medical research, come important understandings about the minds of novices (learners) and experts (life-long learners). Experts build "mental models" or categories and interrelationships, that are then used to organize the information. They constantly challenge the accuracy and robustness of their models and adapt them when necessary to accommodate new data. Novice learners often focus on strict memory recall attempting to retain information in the form of facts or lists. Memorization tends to produce only short-term learning. The integration of technology allows students to create and organize information in mental schema, which results in the ability to access that information in later years for unique problem-solving situations.

With well-constructed web-based and inquiry-based projects the children will practice these important skills and will become learners for life. Technology coupled with inquiry-based and collaborative learning helps more children be successful. The students then

find more opportunities to discover what they enjoy and where they excel, it allows an exploration of options, setting the foundation for entry into higher education and competitive employment. This instructional approach aids children in reaching beyond their potential, or the limits set for them by "experts."

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.

*Rice, Kerry Lynn (2006). "A Comprehensive Look at Distance Education in the K-12 Context."*

*Journal of Research on Technology in Education, 38 (4), 425-448.*

[http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/2b/5e/9c.pdf](http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/2b/5e/9c.pdf)

This review provides a comprehensive examination of the literature surrounding the current state of K-12 distance education. The National Education Technology Plan proposes support for e-learning and virtual schools as a way to assist schools in implementing systematic change. Research has shown that learning in a well-designed distance education environment is equivalent to learning in a well-designed classroom. Distance education programs can serve entire populations of students that traditional classrooms do not, including students who need flexible schedules or who wish to move at their own pace, enrich their education, or use their individual learning styles. Researchers report that students appreciate the feeling of empowerment and freedom in the direction of their learning provided in distance-learning situations. In addition, distance learning tends to provide increased access to highly qualified teachers and more individual support for students from their teachers. The characteristics identified as successful with at-risk students include an instructional environment that is self-paced, personalized, utilize diverse instructional methods, and are facilitated by competent, caring adults.

A major focus of this Technology Plan will be increased access to, and use of, both formally and less-formally structured means of distance learning. Technologies such as streaming media, videoconferencing, and podcasts will bring remote resources into instructional classrooms.

Integrating Technology into the Classroom using Instructional Strategies based on the research from: **Classroom Instruction that Works** by Robert J. Marzano, Debra J. Pickering, Jane E. Pollock, Alexandria, VA: ASCD, 2001

Marzano, Pickering and Pollock examined decades of research to find the teaching strategies that have the most impact on student learning. They identified nine strategies that have the "highest probability of enhancing student achievement for all students in all subjects at all grade levels". These nine areas are:

- identifying similarities and differences
- summarizing and note-taking
- reinforcing effort and providing recognition
- increasing value in homework and practice
- using non-linguistic representations
- incorporating cooperative learning effectively

- setting objectives and providing feedback
- generating and testing hypothesis
- questions, cues, and advance organizers

Marzano feels that graphic organizers are the "most common way to help students generate nonlinguistic representation" (Marzano 75). Marzano also cites *Educational Technology Research and Development* by Gerlic & Jausovec (1999), where the authors write that "engaging students in the creation of nonlinguistic representations stimulates and increases activity in the brain" (73). ""

The CUSD Technology Plan incorporates the above strategies through technology using the following: PowerPoint, Smartboards, Kidspiration, Microsoft Word, websites which include teacher web pages

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

Education Technology Plan Review System (ETPRS)  
Contact Information

County & District Code: 16 - 63883  
School Code (Direct-funded charters only): \_\_\_\_\_  
LEA Name: Central Union Elementary  
\*Salutation: Mr.  
\*First Name: Thomas  
\*Last Name: Addington  
\*Job Title: Assistant Superintendent  
\*Address: 15783 18th Ave.  
\*City: Lemoore  
\*Zip Code: 93245-9742  
\*Telephone: 559-924-3405  
Fax: \_\_\_\_\_  
\*E-mail: darthhr@me.com  
Please provide backup contact information.  
1st Backup Name: Mark Tompkins  
E-mail: tompkins@central.k12.ca.us

\* Required information in the ETPRS

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**Appendix C.**

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