



Bellflower Unified School District
District Technology Plan
July 1, 2013 – June 30, 2016

Created: May 22, 2013

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i. TECHNOLOGY VISION

Bellflower Unified School District is committed to actively seeking out educationally sound, cost effective applications and technology that provide for improved instruction in all curriculum areas toward meeting district goals.

The District will continue to open up the doors to education technology for its preschool through adult learners by allowing them access to the most up-to-date technology available. Adult community members have access to technology-based online courses through the District website and the Las Flores Educational Center. Technology curriculum integration will be focused so that each student will have the opportunity to learn a variety of academic and technology skills.

Toward the use of technology as an instructional tool in the classroom, Bellflower Unified School District will offer its staff and its community training in current technology through professional development, electronic and online resources, and community courses and training. The District will strive to provide training to support the use of technology resources and classroom connections to the Internet or other information highway protocols for its teachers, students, and staff members.

The District will attempt to prudently marshal its fiscal resources so that it will remain fiscally sound. It will continue to lay aside funding for technology as the opportunities become available. Partnerships will be sought with businesses and industry. The District will pursue grants as a source of additional income for technology. To reduce costs, the District will seek to collaborate with other school districts to make purchases of technological equipment.

Within the District, the motto “Standard of Excellence; Nothing Less” drives the teaching and educational knowledge for students. As part of its 2012-13 instructional strategy to provide a high quality, well-rounded educational experience to all students that is rigorous, culturally relevant, healthful, and engaging, the District will strive to improve the use of technology as follows:

- 100% of students and staff will have access to and utilize appropriate technology to improve student achievement.
- Pursue a Technology Replacement Plan for computer purchases and upgrades.
- Ensure implementation of the District Technology Plan in relation to student achievement, professional development, curriculum application, technology support, and monitoring/evaluation tools.
- Improve utilization of Data Director applications for instructional purposes.
- Seek and attain technology grants.

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ii. DISTRICT PROFILE

The Bellflower Unified School District serves 13,449 (February 2013) K-12 students in an eight square mile area in southeast Los Angeles County. It includes most of Bellflower, a large portion of Lakewood, and a small portion of Cerritos. The schools are surrounded by suburban neighborhoods in an area which is centrally located to universities and colleges. Cultural venues, recreational facilities and major attractions are nearby.

Bellflower Unified School District is just the right size to maintain local control. There are ten elementary schools, two comprehensive secondary schools (which include middle school and high school programs), one continuation high school, and an alternative education center. The Las Flores Educational Center houses the Home Education/Independent Study Academy and the Online Instruction Center. The District also maintains Child Development/Head Start programs.

Bellflower Unified School District offers programs and services in safe, clean facilities which support classroom learning. These include computer labs, libraries, guidance programs, career academies, vocational training, health offices, cafeterias serving hot meals, tutoring programs, GATE programs at elementary schools, and advanced placement courses at high schools. The Board of Education consistently enforces a zero tolerance policy for drugs and weapons. The clean and attractive appearance of our campuses and the safety of our students is a priority.

District Mission

The mission of the Bellflower Unified School District is to provide the pathway for all students to attain the expertise and develop skills of academic excellence that will empower them to:

- Become lifelong active learners.
- Perform successfully in their chosen field and in society.
- Model respect for themselves and others in a diverse and global society.
- Think and apply information in a critical manner.

The District is committed to providing students with a variety of options to meet their educational needs. Therefore, the following are offered:

- Healthy Start/Caring Connections: basic health care referrals for students of families in need.
- Special Education: services for students with learning, mental and physical disabilities.
- Job training and career technical education: ROP classes are provided for student and adult career preparation.
- BAE (Bellflower Alternative Education) Center: quality educational program for students who have been expelled from Bellflower Unified School District schools, those referred by the Probation Department, and students assigned by the School Attendance Review Board.
- English Language Development Programs: services at each school for students to achieve success as they learn the English language.

Demographics

The District's demographics represent the ethnic diversity of students (2012-13) and teachers (2011-12):

Population	Hispanic/Latino	American Indian	Asian	Pacific Islander	Filipino	African American	White	Two or more	Not Reported
Students	62.24%	0.33%	3.81%	1.12%	4.57%	13.70%	11.52%	2.70%	0.01%
Teachers	11.80%	0.70%	6.34%	0.53%	1.76%	2.82%	70.42%	2.64%	2.99%

- 21.24% English Learners (2011-12, 22.33% statewide)
- 10.77% Special Education (2011-12, 11.03% statewide)
- 68.6% Free and reduced price lunch (2011-12, 57.5% statewide)
- 16.87% From families below federal poverty line (2010 Census, 17.97% statewide)
- 26.5% Graduates eligible for UC/CSU admission (2011-12, 38.3% statewide)
- 82.9% Cohort graduation rate (2011-12, 76.3% statewide in 2010-11)
- 6.8% Cohort dropout rate (2011-12, 14.4% statewide in 2010-11)

In 2011-12, the 568 district teachers had served an average of 13.5 years in the District (15.2 years total in education); 11 were in their first year and 10 in their second year; 57% held a masters degree or higher.

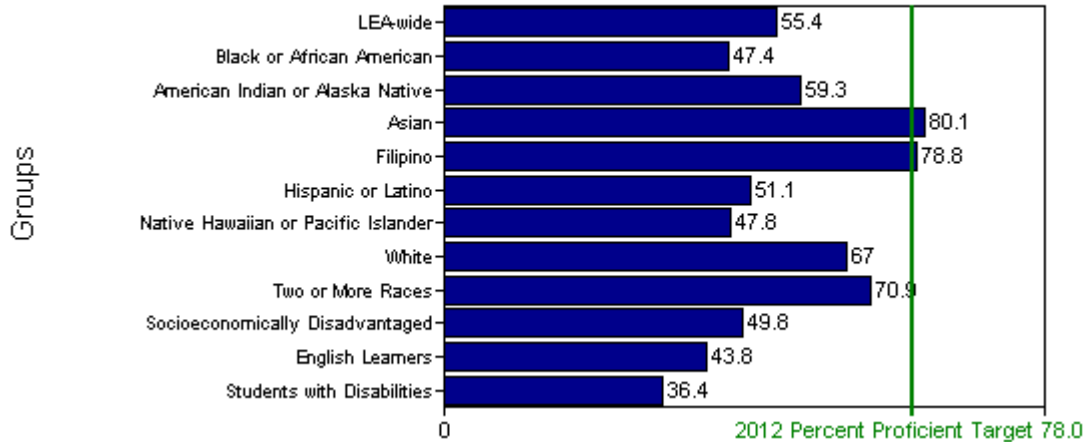
Student Academic Achievement

The standardized STAR test measures student achievement in the spring of each school year. The percentage of students scoring Proficient or Advanced on the 2012 STAR is listed below.

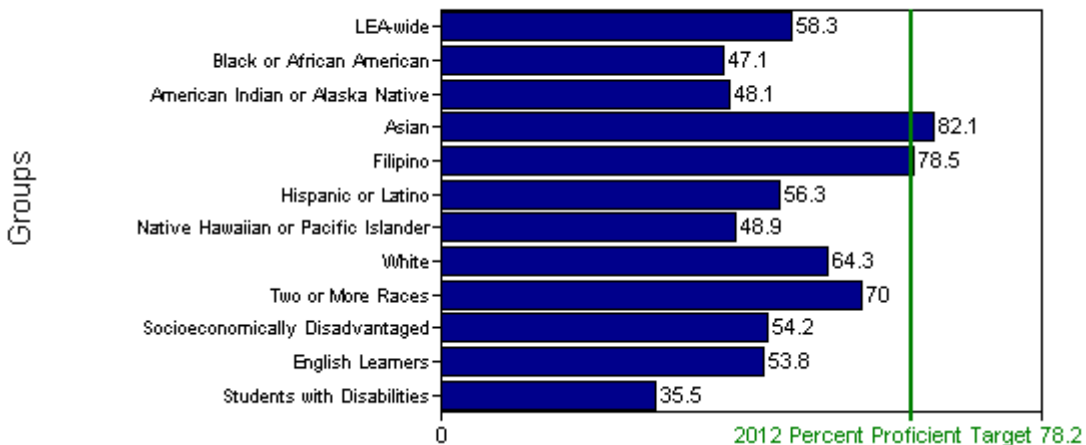
Bellflower USD - California Standards Tests 2012 Percent of Students Scoring at Proficient and Advanced				
Grade	English/Language Arts	Mathematics	Science	History/Social Science
2	54%	58%		
3	45%	70%		
4	67%	71%		
5	62%	65%	61%	
6	58%	48%		
7	56%	48%		
8	55%		78%	52%
9	56%			
10	49%		58%	48%
11	44%			46%
		Gen Math 31%	Earth 30%	
		Alg I 44%	Bio 68%	
		Geom 44%	Chem 56%	
		Alg II 42%	Phys 84%	
		Summ HS Math 63%		

The following two charts show the percentage of students in subgroups District-wide scoring at or above Proficient on the tests used to determine Annual Yearly Progress (AYP). Note that some subgroups are very small.

English-Language Arts - Percent At or Above Proficient



Mathematics - Percent At or Above Proficient



In 2011-12, Bellflower USD met 26 of 42 Annual Yearly Progress (AYP) Criteria.

	API						AYP					
	2011 Base	Growth	2012 Growth	Met Growth Target	Subgroups met Targets	School and Subgroups	Met All	ELA	Math	API	Grad Rate	PI Status
BUSD	780	9	789	NA	NA	NA	No	No	No	Yes	No	Year 2
Elementary Schools												
Baxter	856	12	868	Yes	Yes	Yes	Yes	Yes	Yes	Yes	NA	Not in PI
Foster	864	-8	856	Yes	Yes	Yes	No	No	No	Yes	NA	Not T 1
ILC	897	-11	886	Yes	Yes	Yes	No	No	No	Yes	NA	Not T 1
Jefferson	769	-19	750	No	No	No	No	No	No	Yes	NA	Year 3
Lindstrom	848	6	854	Yes	Yes	Yes	No	No	No	Yes	NA	Not T 1
Pyle	802	2	804	Yes	No	No	No	Yes	No	Yes	NA	Year 1
Ramona	745	10	755	Yes	No	No	No	No	No	Yes	NA	Year 3
Washington	788	-6	782	No	No	No	No	No	No	Yes	NA	Year 3
Williams	791	14	805	Yes	No	No	No	No	No	Yes	NA	Not in PI
Woodruff	748	25	773	Yes	Yes	Yes	No	No	Yes	Yes	NA	Year 2
Secondary Schools												
Bellflower	752	18	770	Yes	Yes	Yes	No	No	No	Yes	Yes	Not T 1

	API						AYP					
	2011 Base	Growth	2012 Growth	Met Growth Target	Subgroups met Targets	School and Subgroups	Met All	ELA	Math	API	Grad Rate	PI Status
Mayfair	776	12	788	Yes	No	No	No	No	No	Yes	Yes	Not T 1
Somerset	587	-42	545	No	Yes	No	No	Yes	No	No	No	Not T 1
BAE	*	*	*	*	*	*	No	Yes	No	NA	NA	Not T 1

According to DataQuest, in 2011-12, the California High School Exit Exam pass rate for Bellflower USD sophomores was 83% in English language arts and 84% in mathematics. The overall pass rate for all exams taken was 69.0% in English language arts and 68.7% in mathematics.

1. PLAN DURATION

This plan will guide Bellflower Unified School District's (BUSD) use of technology for the three-year period from July 1, 2013, through June 30, 2016. It serves as both the Enhancing Education Through Technology (EETT) education technology plan and the E-Rate plan for the District. The District Board of Education will approve the plan.

2. STAKEHOLDERS INVOLVEMENT

A BUSD Technology Team was formed in order to recommend specific actions that need to be taken to meet short and long-term goals. During the 2012-13 school year, the Team has met monthly and consulted a variety of people who will implement the plan. The Team consists of a variety of stakeholders who will implement the plan, including District curriculum and information technology staff. The following chart lists Team members' names, titles and affiliations:

Name	Title	Affiliation
Lisa Azevedo	Assistant Superintendent, Instructional Personnel and Programs	BUSD Department of Instructional Personnel and Programs
Colleen McKinley	Director, Curriculum and Instruction	BUSD Department of Instructional Personnel and Programs
Charlene Bowden	Director, Assessment and Instructional Support Services	BUSD Department of Instructional Personnel and Programs
Phil Eichar	Interim Director of Technology/ Network Administrator	BUSD Department of Information Technology and Networking
Brian Ahumada	ROP Teacher	Bellflower HS
Michelle Best	Sixth Grade Teacher	Albert Baxter Elementary School
Peter Cunanan	Second Grade Teacher	Intensive Learning Center
Nathan Drown	Career Technical Education Teacher	Mayfair Middle/High School
Joel Fisher	Math Teacher	Somerset Continuation High School
Kevin Gaffney	Fifth Grade Teacher	Ernie Pyle Elementary School
Julie Humble	First Grade Teacher	Craig Williams Elementary
Chris Keeler	Data Technician	BUSD Educational Technology
Jerrilee Klaiber	First Grade Teacher	Ramona Elementary School
Tammy McQuade	Second Grade Teacher	Esther Lindstrom Elementary School
Keri Menebroker	Teacher	F. E. Woodruff Elementary
Sean Monroe	Middle School Math Teacher	Bellflower Middle/High School
Kristin Parker	Kindergarten Teacher/SDC	Stephen Foster Elementary
Deana Sabala-Aborne	Kindergarten Teacher	Thomas Jefferson Elementary School
Amanda Waytas	Fifth Grade Teacher	Washington Elementary School

A District Technology Use and Needs Survey was administered to teachers during Winter 2012-13 and included 314 respondents or approximately 55% of the 568 teachers District-wide. In March 2013, principals were also asked to respond to a Survey of Teacher Technology and Integration Proficiencies based upon their knowledge of teachers and observations on their school site. Results of both surveys are reported in Sections 3 and 4 of this technology plan.

Additionally, input was solicited from a Citizens' Task Force meeting on March 6, 2013. The 25-member Task Force is composed of community and parent representatives from school sites, the BUSD Board of Education, the cities of Bellflower and Lakewood, the Bellflower Council PTA, and the Lions Club. The meeting focused on student technology use in BUSD; all school levels were represented. Of the attendees, 100% indicated that they had computers with Internet access within their homes for their children to use.

The following are parent and community responses to the question, "What is MOST important to you related to your student's use of technology at school?"

- Up-to-date technology
- Availability of technology
- Better integration of curriculum and standards with technology
- Students learning how to use technology effectively
- Internet safety
- Supervision/guidance while using technology
- Keyboarding vs. voice-activated technologies
- Build independence – how to find assistance on the Internet
- Bringing teachers and the institution up to date in the use of technology
- Teach students how to search and acquire data/research; how to use search engines

Responses to "What is your future vision?"

- Better integration of curriculum and standards with technology
- Cloud-based computing, the speed to connect to the cloud
- On-line textbooks and curriculum
- More technology in classrooms
- Get teachers to adapt to technology
- Paperless assignments and record-keeping
- Need to move ahead quickly with technology
- Keep the network updated and powerful
- Teach technology at a younger age
- Quality software
- Learning aids for secondary students

What are your major concerns and other comments?

- The ability of the District and staff to adapt to new technology

- The ability of the District to keep up with new technology, affordability, and funding
- The need for additional bandwidth
- Timeline for moving to eBooks
- The need to focus on 1:1 desktops as support for tablets/laptops is more difficult; they can walk away, are more easily damaged, and proprietary.
- Installing wireless in old buildings can create “Wi-Fi dead zones” due to older construction techniques.
- Systems are in the process of getting better; there will be rough spots along the way.

The following chart shows individuals and groups who provided direct support and were consulted during development of this Technology Plan:

Name	Title and Support	Affiliation
Dr. Brian Jacobs	Superintendent Direction and support	Bellflower USD
Marcy Delgado	Associate Superintendent, Business and Personnel Services Direction and support	Bellflower USD
Lisa Azevedo	Assistant Superintendent, Instructional Personnel and Programs Direction, input , and support	Bellflower USD
Charlene Bowden	Director, Assessment and Inst. Support Services District coordination and technology plan support	Bellflower USD
Phil Eichar	Interim Director of Technology/Network Admin. District coordination and technology plan support	Bellflower USD
Staff	District administration and support, principals, District Technology Team, classroom teachers, classified staff and librarians Input through meetings, email, and surveys	Bellflower USD District Offices and Schools
Parent and Community Members	Citizens’ Task Force Meeting Input	BUSD schools and other community organizations
Irene Cox	Education Technology Consultant	Tech Ed Services, Inc.
Catherine Steinhoff	Education Technology Consultant	Tech Ed Services, Inc.
Pat Sanford	President and CEO	Tech Ed Services, Inc.

3. CURRICULUM COMPONENT

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

Students and teachers have access to technology in their classrooms, labs, and library media centers both during the school day and outside of school hours. All have access to the Internet but no wireless access is currently available. Because of budget limitations and reduced funding, use of technology has been supported mostly through categorical funding as determined by site needs. Access, use, and age of technology vary widely within the District.

All high school and middle school teachers have assigned desktop or laptop computers for instructional use. At the elementary schools, many teachers have dedicated teacher computers; the others have access to laptop-sharing programs and share student computers located in their classrooms, labs, and library/media centers.

According to the District Technology Use and Needs Survey, teachers report that almost all elementary classrooms have at least one student computer. For the two comprehensive middle/high schools, approximately one third of classrooms have one or more student computers. The number of labs on each site varies (see the chart below and Section 5a/b for detail). Most elementary schools have at least two computer labs. The comprehensive high schools share some labs with the middle school programs on their campuses. Mayfair HS has six labs, Bellflower HS has ten, and Somerset has three. Labs are used for scheduled class work, for interventions, learning keyboarding, assessment, and specialized classes. At Bellflower Alternative Education Center, pods of 6-12 computers are located in each classroom. On the Survey, some teachers indicated that some of the labs are out of date and hardly working.

All schools except for the continuation high school and BAE have libraries on site. Library aides provide assistance on elementary sites with an average of three computers in each library. Certificated teacher librarians provide support at the comprehensive high schools, with the Bellflower library having 58 computers and the Mayfair library having 53.

The following chart shows an estimate of the total number of computers at each school and ratios of students to total computers and students to computers less than 60 months old. The chart is based on February 2013 enrollment figures and the number of computers detected by the network during several days in March 2013, adjusted up to account for those computers not turned on during these days.

School	Student Enrollment (2013)	Total computers	Student: computer ratio	Total comp < 60 mos	Student: Comp < 60 mos ratio	Number of labs	# of comp. in labs
Baxter Elementary	509	170	3.0 : 1	47	10.8 : 1	2	73
Foster Elementary	718	140	5.1 : 1	102	7.0 : 1	2	65
Intensive Lrn Center	556	140	4.0 : 1	90	6.2 : 1	1	40
Jefferson Elementary	669	148	4.5 : 1	80	8.3 : 1	2	60
Las Flores	36	32	1.1 : 1	26	1.4 : 1	1	21

School	Student Enrollment (2013)	Total computers	Student: computer ratio	Total comp < 60 mos	Student: Comp < 60 mos ratio	Number of labs	# of comp. in labs
Lindstrom	877	167	5.3 : 1	78	11.2 : 1	2	70
Pyle Elementary	555	163	3.4 : 1	113	4.9 : 1	2	78
Ramona Elementary	680	216	3.1 : 1	132	5.2 : 1	3	104
Washington	847	226	3.7 : 1	124	6.8 : 1	2	73
Williams Elementary	854	215	4.0 : 1	119	7.2 : 1	2	76
Woodruff	688	204	3.4 : 1	147	4.7 : 1	2	76
Elem. Total	6,989	1,822	3.8 : 1	1,057	6.6 : 1		
Bellflower HS	2,843	460	6.2 : 1	373	7.6 : 1	10	334
Mayfair HS	3,289	508	6.5 : 1	302	10.9 : 1	6	231
Somerset CHS	284	167	1.7 : 1	78	3.6 : 1	3	66
Alt. Ed. Center	24	27	0.9 : 1	27	0.9 : 1	0	0
HS / Alt Total	6,440	1,153	5.6 : 1	780	8.3 : 1		
District Total	13,429	2,975	4.5 : 1	1,838	7.3 : 1		

On the District Survey, 56% of the teacher respondents reported having LCD projectors in their classrooms; 47% reported having document cameras (refer to Section 5 a/b for details). Teachers who do not have LCD projectors in their classrooms have access to presentation equipment either through shared computer carts with LCD projectors or connections to installed CATV systems in classrooms. In addition, some teachers at several schools are piloting the use of SMARTBoards. All instructional areas have access to printers and peripherals as determined by site needs. Other equipment indicated by teachers on the District Survey includes Student Response Systems (clickers) and Lightspeed Audio Systems.

Student access to technology outside of school hours varies by school site. Most sites offer extended library/media center hours providing access to computers after school. Additionally, at most sites there are teachers who volunteer their time and their classrooms for students to use technology on an informal basis. Special programs offer additional access. Through enrichment programs, students are given after school access to computers and other technology equipment including digital cameras, scanners and video cameras. Many schools offer intervention programs where technology is used after school and through extended year programs. High school students can gain additional access through ROP classes offered before and after school. The afterschool Project Apple program serves almost 700 students daily on eight elementary sites. Technology is used for writing and Internet research.

Outside of school, students use computers at home and at community locations. Many Bellflower USD students use computers and access the Internet at public libraries. They also rely on cell phones, iPod Touches, and other personal devices to connect to the internet.

3b. District's current use of hardware and software to support teaching and learning.

Bellflower Unified School District (BUSD) schools identify the most common teacher uses of technology include word processing for materials development, content specific software or web-based resources for curriculum delivery, and online student assessment tools to guide instruction. To a lesser degree, technology is used to create reports or projects, research using the Internet, data analysis and problem solving, and presentation of material electronically.

The most common student uses of technology include reinforcement and practice, keyboarding, word processing, use of the Internet for research, and project and report creation. Sometimes technology is used for photo/video editing, career exploration, assessments, and creative design. To a lesser degree, technology is used to access demonstrations or simulations, to present material electronically, and to analyze data and solve problems.

The following chart shows the frequency of student classroom or lab computer use across the District, based on a winter 2012-13 teacher survey. Frequencies of use vary widely among teachers.

Student Use of Computers During Class Time		
Grade	Average Computer Use/Week	Median Computer Use/Week
K-1	100 minutes/week	120 minutes/week
2-3	110 minutes/week	100 minutes/week
4-6	2 hours/week	85 minutes/week
7-8	20 min/week <u>per class</u>	0 (70% of teachers indicated no classroom use)
9-12	30 min/week <u>per class</u>	0 (66% of teachers indicated no classroom use)
Alternative	Varies per student need	Varies
Continuation	160 min/week <u>per teacher</u>	150 min/week per teacher (5 teachers said 0-2 minutes)

As the District moves toward implementation of the adopted Common Core State Standards (CCSS), the use of technology in alignment with those standards to inform, deliver, and enhance instruction in the core areas of English Language Arts, Mathematics, Science, and History/Social Studies will be integral to curriculum and assessment. Currently, school sites select their own software based on local needs. Some examples of Electronic Learning Resources being used include:

Accelerated Math	GradPoint Online	Microsoft Office
Accelerated Reader	Imagine Learning	NetSmartz for Internet
Adobe Creative Suite	Inspiration	Safety
Career Cruising	Logged Pro	NovaNET
eInstruction Workspace	Math Facts	OdysseyWare
Encarta	Mavis Beacon Typing	Plato
ExamView Pro	McDougal Littell Test	READ 180
GED Interactive	Generator/Easy Planner	Read Naturally

Rosetta Stone
SAM Animation
Scholastic Reading

Scratch
STAR Math
STAR Reading

SuccessMaker
Typing Time
Waterford Early Literacy

Libraries currently use Follett Spectrum. In 2013-14, all will use Follett Destiny Textbook Manager and Destiny Library Manager.

Microsoft Office is the productivity software used for word processing, spreadsheets, and presentations; Internet Explorer is used for web browsing. Teachers and students use textbook electronic resources (CD and online) for social studies, mathematics, and language arts.

Somerset High School houses the District Independent Study Program for students in grades 7 to 12 and for adult re-entry of those over 18. Teacher and computer lab access are available daily. Pearson Learning's GradPoint online blended learning system provides course and supplemental options for core academic, elective, honors, and AP programs with 24/7 access to earn or recover credits.

Learning software used to increase student achievement and provide intervention support includes Accelerated Reader and Math, STAR Reading and Math, READ 180, Waterford Early Literacy, and SuccessMaker. Rosetta Stone and Imagine Learning are used for English learners.

Special needs students (i.e. ELL, RSP, SDC, and GATE) may have additional software, hardware, and other assistive technologies available for their use to address their individual needs. Types of assistive technologies used include keyboards, audio equipment, portable devices, and other special software for the visually and hearing impaired. The District continues to explore effective strategies and provide equal access for all students. Special Education teachers use Special Education Information System (SEIS) software for IEPs and case management.

All certificated and office staff have email accounts. The student information system used by the District is Aeries.net. Secondary school teachers use Aeries for attendance and grade reporting. An Aeries parent portal is available at the middle and high school levels. K-2 will be added for parent access in 2013-14, and the remaining grades in 2014-15. Data Director is the used by teachers and administrators to access assessment data and information; however, this will be replaced with a different system by 2014-15.

Webpages are provided on the District website for all schools including links to communicate with staff via email. Each webpage includes school maps, school calendar and highlights, bell schedule, and links to the School Accountability Report Card, STAR Results, and other information as determined by each school.

3c. District's curricular goals that are supported by this Technology Plan.

Technology integration will be aligned to District curricular goals and board policies toward implementation of the Common Core State Standards (CCSS) for student achievement; the National Educational Technology Standards for Students (NETS*S), Teachers and Administrators; and BUSD's Student Technology Learning Standards.

The BUSD Local Educational Agency (LEA) Plan describes the District's mission and its curricular goals. In a respectful, student-centered, safe, clean and orderly environment, all students are expected to make continuous and measurable progress toward mastery of the California Content Standards in core academics and in other content areas. Standards-based and technology-supported grade reporting is utilized in grades kindergarten through six, and all high school course outlines are standards based. Online access to standards is provided on the District website. The District is in the beginning stages of implementing the Common Core State Standards (CCSS).

The Plan's five performance goals are:

1. All students will reach high standards, at a minimum, attaining proficiency or better in reading and mathematics, by 2013-14. (Supported by Technology Plan Sections 3d, 3e, 3i, and 4b)
2. All limited English proficient students will become proficient in English and reach high academic standards, at a minimum attaining proficiency or better in reading/language arts and mathematics. (Supported by Technology Plan Sections 3d, 3e, 3i, and 4b)
3. All students will be taught by highly qualified teachers. (Supported by Technology Plan Section 3d, 3f, 3g, 3i, and 4b)
4. All students will be educated in learning environments that are safe, drug-free, and conducive to learning. (Supported by Technology Plan Sections 3d, 3e, 3f, 3g, 3i, 3j, and 4b)
5. All students will graduate from high school. (Supported by Technology Plan Sections 3d and 3i)

The LEA Plan currently addresses critical keys to improving student achievement: Alignment of instruction with content standards, use of standards-aligned instructional materials and strategies; extended learning time; increased access to technology; professional development and collaboration; involvement of staff, parents, and community; auxiliary services for students and parents; monitoring program effectiveness; targeting services and programs to lowest performing groups; and other services tied to academic needs.

In addition, each school site uses existing technology to disaggregate data to inform its Single Plan for Student Achievement. As a result of this activity, each school site plans systematic interventions to assist all students in meeting and exceeding standards and in passing the California High School Exit Examination (CAHSEE) before graduation. In each site's Single Plan specific curricular strategies are outlined and annual achievement targets are set for the school significant subgroups within the school. Frequent, varied assessments are employed to measure progress toward academic goals. At the high school level, the Western Association of Schools and Colleges Accreditation Report, along with its interim documentation, serves as a comprehensive guide to each school's effort to produce academically proficient, college and career capable, young citizens.

3d. Technology use to improve teaching and learning by supporting District curricular goals.

Bellflower Unified School District (BUSD) believes that instructional technology should be accessible to all students to support learning academic content standards, to address individual student needs, and to provide support for underachieving students.

In support of curriculum integration, elementary schools utilize teacher Technology Facilitators. Facilitators provide leadership and support for instructional technology use. The Facilitator works closely with the school principal and staff to meet school technology needs.

Professional Learning Communities collaborate to analyze student data, plan instruction, and share strategies.

With the implementation of Common Core, the District will transition from the use of benchmark blueprints serving as pacing guides for core content to use of the Synced Solution online program beginning in 2013-14 for Grades K-2 in English language arts and math. The following year, pacing guides for Grades 3-12 will be provided.

On the District Survey, teachers were asked “What technology equipment would you like added to your classroom ?” The following summarize the results of the 314 teacher respondents:

- SMARTBoard: 42%
- Student Response Systems (Clickers): 39%
- Document Camera/ELMO: 35% (51% of respondents report already having them)
- Computers (new or additional): 30%
- Scanner: 29%

Excluding results similar to the items already listed above, the following summarize key results from a free responses question asking “What technology is needed at your school site?”

- iPads/tablets: 15%
- Laptops (student or teacher): 24%
- Need new and/or functioning labs
- Need LCD projectors with some requests for those that are ceiling-mounted
- Headsets/headphones
- Printers

No wireless access is currently available. There is a need to implement wireless access to allow for expanded flexibility, use of handheld devices, and use of additional content area electronic resources. As the District moves to implementation of the Common Core Standards, all teachers will need a dedicated computer for teacher use, a LCD projector, a document camera, and a printer in the classroom. The District is exploring options to provide this expanded access.

BUSD will continue to research, investigate, pilot, and promote best practices in the use of educational technologies to improve teaching and learning. The District is considering the option of implementing 1:1 mobile device technologies for use by students. A robust infrastructure and wireless access will be needed. Implementation will be encouraged as funding and resources become available.

The section that follows describes what Bellflower Unified School District expects its students to achieve academically, and describes how, through meaningful integration of technology, student academic achievement can be improved.

GOAL 3d.1: Student learning and academic achievement will improve through teacher and student use of technology for instruction and learning in support of District curricular goals.

Curriculum Link: LEA Plan Goals 1, 2, and 5

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
3d.1.1	Students in grades 2-11, District-wide and all significant subgroups, will meet or exceed District LEA Plan Annual Measurable Objectives (AMOs) in English language arts. (Percentage of students scoring Proficient or better)	58%	61%	64%
3d.1.2	Students in grades 2-11, District-wide and all significant subgroups, will meet or exceed District LEA Plan Annual Measurable Objectives (AMOs) in mathematics. (Percentage of students scoring Proficient or better)	61%	64%	67%
3d.1.3	The percentage of students passing the CAHSEE in English language arts will increase annually by 5 Percentage points The 2012 overall pass rate was 69%.	74%	79%	84%
3d.1.4	The percentage of students passing the CAHSEE in mathematics will increase annually by 5 percentage points. The 2012 overall pass rate was 69%.	74%	79%	84%
3d.1.5	By June 2016, the District graduation rate will be 100%.	85%	90%	95%

GOAL 3d.2: Bellflower staff and students will increase their use of technology to improve teaching and learning.

Curriculum Link: LEA Plan Goals 1, 2, 3, 4, and 5

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
3d.2.1	By June 2016, 100% of teachers will give their students classroom assignments requiring them to use computers/handheld devices and peripherals as reported on the District survey, at least as often as per the following frequency: <ul style="list-style-type: none"> • Grades K-1: 45 minutes per week • Grades 2-3: 1 hour per week • Grades 4-6: 1.5 hours per week • Grades 7-8: 3 hours per week 	50%	75%	100%

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
	<ul style="list-style-type: none"> Grades 9-12 and BAE: 4 hours per week, not including time spent in computer electives 			

	Action Plan	Timeline
a	Teachers and students engage in a coherent, systematic implementation of research-based, State Board of Education-approved core text programs that include technology components such as audio, tutorials, exam-builders, lesson planners, e-textbooks, and web resources. Use of electronic textbooks is being explored and will be implemented as feasible.	Aug – June, each year
b	Teachers will update and revise pacing guides and assessments to reflect implementation of the Common Core State Standards (CCSS).	ELA and Math, June 2014
c	Teachers and support staff will use supplemental instructional technology materials and resources developed, identified, and/or shared through the Statewide CDE Online Portal (Brokers of Expertise) for implementation of the CCSS.	Aug – June, each year
d	The District is partnering with School City and Action Learning Systems to use the Synced Solution, a web-based application that facilitates CCSS curriculum (English language arts and math) planning aligned with District-adopted curricular materials and provides assessment and instructional tools including professional development resources.	Grades K-2, 2013-14 Grades 3-12, 2014-15
e	Students and teachers use computers in classrooms, labs, and libraries to access the Internet for research and for a variety of online resources as available on each site as determined by student and program needs.	Increase annually as bandwidth is increased at each site (minimum 1 Gbps to the desktop at all sites by 2017); beginning 2013
f	Wireless access is not yet available but is expected to be implemented over the course of the plan at all sites. Students' use of mobile technology like laptops, netbooks, iPads and/or handheld devices via wireless networks will be piloted and expanded as the District implements instruction in the CCSS and prepares students to take the upcoming SBAC online assessments.	Wireless access at all sites by 2017; beginning 2013 Increase use of mobile technology as wireless networking is provided; each year
g	Students use Microsoft Office productivity software to complete assignments and projects, including Word for essays and reports, Excel for graphing and spreadsheets, and PowerPoint presentations. The use of free Google Apps is being explored for expanded use. Increasingly, students will be given technology-based assignments that promote critical college and career readiness, problem-solving, and higher order thinking skills.	Increase as additional, updated computing devices and presentation equipment are provided in classrooms and labs; each year

	Action Plan	Timeline
h	Students requiring intervention in Language Arts and Math use a variety of technology resources such as Accelerated Reader and Math, STAR Reading and Math, Waterford Early Literacy, SuccessMaker, and Imagine Learning to improve academic achievement. English learners use READ 180, Edge, High Point, Inside, NovaNET, and OdysseyWare.	Aug – June, each year
i	Independent study students use GradPoint for credit recovery, advanced placement classes, and other online courses. High schools are using SAT and AP software. NovaNET and OdysseyWare are used for online courses and credit recovery.	Aug – June, each year
j	Teachers will expand the use of projection equipment and document cameras for lesson delivery and increased visual input toward expanding implementation of standards-based instruction and assessment of learning. Piloting interactive whiteboards and student response systems; expansion will be site decisions	Aug – June, each year All instructional areas to have LCD projectors and document cameras by 2016
k	High school students will continue to participate in a wide variety of ROP career preparation classes including arts, media, and graphic design; auto specialization; business occupations and Microsoft Office skills; computer repair and networking; construction technology; criminal justice and law enforcement; engineering design; health occupations; retail and sports marketing; and robotics.	Aug – June, each year
l	The Las Flores Educational Center offers a wide range of over 200 academic and vocational online courses for adults toward personal enrichment, college readiness, preparation for industry certification, and professional development including courses for teachers and other professionals. Courses for ESL, GED preparation, personal and business technology use, parenting, and technology integration courses for teachers are offered. The Center partners with the Career Online High School to offer credit recovery courses in math, science, and language arts.	Ongoing, each year
m	Site Technology Facilitators at the elementary level provide support to teachers for training and classroom implementation.	Aug – June, each year
n	The Directors of Curriculum and Instruction and of Assessment and Instructional Support Services work together to ensure that teachers are using the appropriate electronic learning resources for the curriculum and implementation of the CCSS. Teachers using the Synced Solution will develop and maintain a collection of resources that includes web resources, approved software, and best practices.	Updated by Jan, each year
o	Teachers will receive training and design lessons that require student use of technology to enhance learning including use of productivity software, the Internet, site academic software, and other technologies toward increasing student achievement in academic core content areas.	Aug – June, each year

	Action Plan	Timeline
p	Students attend CAHSEE intervention classes that incorporate the use of technology before and after school, during the school day, and/or during the summer.	Aug – July, each year
q	The District will maintain adequate versions of productivity software on all computers, will purchase additional licenses of existing curriculum-oriented software as required, and will keep up maintenance and service agreements for student information and assessment data management systems, other databases, and online tools/programs.	Ongoing, each year
r	Instructional and technology leadership will work together to ensure that all ELRs purchased for instruction, diagnostic remediation, reinforcement and enrichment, and/or data management will work properly on the network and on District equipment.	Ongoing, each year
s	The Interim Technology Director will annually assess needs for the network infrastructure and wireless coverage and make recommendations to Associate Superintendent of Business and Personnel Services, for upgrades as needed in support of teacher and student use of technology.	Ongoing, each year
t	If funding becomes available, the District would like to explore videoconferencing capability to support distance learning (e.g. access for homebound students, virtual field trips, access to specialized classes and master teachers shared between schools and other districts) and virtual meetings.	As available, each year

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Students	<ul style="list-style-type: none"> • Take District assessments and state tests as required • Complete required technology-based assignments and projects
Teachers	<ul style="list-style-type: none"> • Evaluate student technology-based work processes and products; teach/re-teach as needed; modify lessons for next year (e.g., choose to use a different technology to address a certain standard) • Determine students needs for intervention • Assign and monitor use and results of technology-based programs • Monitor CAHSEE, state, and District test and assessment data to drive instruction • Annually in Fall complete the District Technology Use and Needs Survey
Site Administrators	<ul style="list-style-type: none"> • Coordinate efforts with District Office for Curriculum and Instruction and Assessment and Instructional Support Services for implementation of CCSS and online statewide assessments • Ensure that teachers have proper materials, technology tools, and support • Principals monitor classroom instruction via informal and formal observations

Person Responsible	Monitoring, Evaluation, and Program Modification Process
	<p>and lesson plan review</p> <ul style="list-style-type: none"> • Monitor use of libraries, computer labs/mobile carts, and handheld devices; will generate a report of assessed need and funding available • Monitor and evaluate the application of technology for all learners including English Learners and other significant subgroups • Monitor use of instructional technology, the WAN, and wireless access on their school campuses • Evaluate feasibility of keeping computer labs open after school and monitor after school lab use (ongoing) • Monitor developing needs for additional computer labs and equipment at all schools • Report any technology support needs to the Information Technology Department via an online ticketing system • Monitor teacher participation in annual District Technology Use and Needs Survey • Monitor student progress and annual grade-level and subgroup assessments for appropriate placement in intervention courses • Work with Information Technology Department to monitor and evaluate use of technology resources and submit purchase recommendations
<p>Site Technology Facilitators and District Information Technology Department</p>	<ul style="list-style-type: none"> • Research, investigate, and recommend new technology resources and tools
<p>Interim Technology Director</p>	<ul style="list-style-type: none"> • Administer annual District Technology Use and Needs Survey • Evaluate District Survey findings and inform site administrators of results and needs • Monitor needs and processes for network use and need for upgrades • Annually (Fall) monitor results of District Survey to recommend any Technology Plan changes • Gather data to monitor implementation of technology plan • Review and prioritize technology support and funding sources needed to effectively implement the technology plan in collaboration with the Curriculum and Instruction and Assessment and Instructional Support Services Departments • Research, investigate, and recommend new technology resources and tools • Participate in updating District Technology Plan annually (Fall) in response to

Person Responsible	Monitoring, Evaluation, and Program Modification Process
	<p>student achievement and District Survey results</p> <ul style="list-style-type: none"> • Work with principals to monitor and evaluate use of technology resources and make purchase recommendations • Oversee acquisition and implementation of hardware and peripherals • Assess bandwidth in regard to meeting instructional needs and make recommendations to Associate Superintendent for upgrades as needed in support of teacher and student use of technology • Evaluate student file storage options annually
Director, Curriculum and Instruction	<ul style="list-style-type: none"> • Coordinate efforts with principals for implementation of CCSS • Provide support and training to teachers for curriculum and technology integration • Ensure the appropriate instructional application of hardware and software • Assist in the planning and facilitation of professional development • Research, investigate, and recommend new technology resources and tools
Director, Assessment and Instructional Support Services	<ul style="list-style-type: none"> • Assist in gathering data to monitor implementation of technology plan • Participate in updating District Technology Plan annually (Fall) in response to student achievement and survey results • Coordinate efforts with principals for implementation of state tests and upcoming online statewide assessments • Monitor API Growth targets, CAHSEE, and state test results • Monitor implementation of online statewide assessments • Ensure that all students take state and district assessments annually • Monitor student assessments and analyze results • Monitor technology support for instructional and assessment programs • Provide data for site administrators to assess their programs • Help to revise annual action steps to ensure full implementation of technology plan
Associate Superintendent, Business and Personnel Services	<ul style="list-style-type: none"> • Authorize needed bandwidth, infrastructure, and network upgrades • Work with Technology Director and Principals to authorize purchases of technology resources as needed

3e. Students' acquisition of technology skills and information literacy skills needed to succeed in the classroom and the workplace.

In order to enable students to use technology as a tool to improve academic achievement, the District will ensure that students have the opportunity to learn computer knowledge and skills

including word processing, Internet search and retrieval, email skills, spreadsheets, electronic publishing, and courseware.

The District also places high priority on aligning the teaching of information literacy skills with technology use for locating, selecting, organizing, presenting, and assessing information in and through a variety of media technologies and contexts to meet diverse learning needs and purposes. The District has developed grade level Technology Learning Standards for Grades K-2, Grades 3-5, Grades 6-8, and Grades 9-12 in alignment with the National Educational Technology Standards for Students (NETS*S). Information literacy and cybersafety skills are embedded in the Technology Learning Standards.

Students at all grade levels learn technology and information literacy skills while completing class assignments and research throughout the curriculum. Library staff also assist students and teachers one on one with library/research/Internet skills when they come to the library.

Technology is used to reinforce academic skills and individualize instruction using technology that is tied to curriculum and appropriate to grade levels. At the middle school level students take technology-based elective courses and programs focused on basic computer skills. At the high school level, students participate in advanced career technical education elective courses and Regional Occupational career preparation classes including arts, media, and graphic design; auto specialization; business occupations and Microsoft Office skills; computer repair and networking; construction technology; criminal justice and law enforcement; engineering design; health occupations; retail and sports marketing; and robotics.

With the implementation of Common Core State Standards (CCSS) with its embedded focus on technology and media skills, curriculum pacing guides will need to be revised and updated and the District Technology Learning Standards will need to be more closely aligned. The Pacing Guides will focus on CCSS for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects and the National Educational Technology Standards for Students (NETS*S). There will be an emphasis on academic CCSS to address writing, research, problem solving, and media use. Internet safety will be embedded as the District revamps its Internet safety curriculum in its new adoption of the NetSmartz curriculum. Uniformity and common grade level (elementary, middle, and high school) expectations for students will insure consistency and development of skills students need to be successful in school and work.

Information literacy is defined as the ability to define, locate, select, organize, present, and assess information in and through a variety of media technologies and contexts to meet diverse learning needs and purposes. An information literate person knows and follows safety, ethical, and legal procedures in the use of technology. BUSD students are taught information literacy skills through adopted materials and classroom instruction aligned to CCSS. Examples of such standards taken from the English Language Arts CCSS follow:

- **W.4.6.** With some guidance and support from adults, use technology, including the use of Internet and keyboarding skills, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

- **RI.8.7.** Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
- **SL.11-12.2.** Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.
- **SL.11-12.5.** Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

GOAL 3e.1: Students will acquire technology and information literacy skills through lessons and activities embedded in the core curriculum.

Curriculum Link: LEA Plan Goals 1, 2, and 4

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
3e.1.1	By June 2016, and in all succeeding years, 75% of all elementary students will meet District Technology Standards as evidenced by their technology grade on their Standards-Based Report Card.	40%	55%	75%
3e.1.2	By June 2016, and in all succeeding years, 100% of all middle and high school students will meet District Technology Standards as evidenced by student portfolio work samples.	40%	60%	80%
3e.1.3	By June 2016, and in all succeeding years, 100% of all high school students will produce a multimedia project prior to graduation.	40%	60%	80%

	Action Plan	Timeline
a	Under the supervision of the Director of Curriculum and Instruction, Pacing Guides of grade-level appropriate technology and information literacy skills aligned to CCSS will be revised. They will also include suggested student work samples and projects, cybersafety, and digital literacy strategies.	Align Grades K-2, June 2014 Align Grades 3-12, June 2015 Review and update, each year
b	Distribute and promote revised curriculum Pacing Guides to teachers throughout the District.	Aug 2014 and Aug 2015
c	Teachers and administrators will receive training on CCSS and necessary technology and information literacy skills to achieve success with students with an emphasis on core subjects in all grade levels.	Summer/Fall, each year and as determined by need
d	As new textbook materials are adopted, technology-based resources that are appropriate to meeting the content standards in teaching areas and subject matter will be made available to teachers and supported by the Instructional Division.	As new materials are adopted

	Action Plan	Timeline
e	Students will be taught technology and information literacy skills by their classroom teachers during the course of academic instruction. The revised curriculum Pacing Guides aligned to CCSS and the District Technology Learning Standards will be implemented.	Aug – June, each year Scheduled as per new curriculum/standards
f	Students will use computers and/or handheld devices in classrooms, labs, and libraries to develop and practice technology skills as evidenced in elementary report cards and middle/high school student portfolios.	Aug – June, each year Increase use as updated computers and devices and wireless access are provided
g	High school students will be taught and will demonstrate technology and information literacy skills through chosen electives and through their English and other core classes (through collaboration between their teachers and the library staff). Seniors are required to complete a multimedia project prior to graduation.	Aug – June, each year
h	Students (K-12) will be taught basic computer knowledge and skills and application-specific procedures required to access and use each piece of required software. They will be taught how to use program feedback to track and improve their achievement.	Aug – June, each year
i	Students will be taught to use productivity software (such as Microsoft Office or Google Apps) to complete assignments, including word processors for essays, reports, and note-taking; spreadsheets for graphing and data analysis; presentation software for multimedia projects related to the curriculum; and specialized tools as available on each site.	Aug – June, each year
j	Students will be taught about and will have the opportunity to use peripherals needed for use with productivity software (as needed for assignments as grade-level appropriate), such as printers, projectors, and digital still/video cameras as available on each school site.)	Aug – June, each year
k	Pilots will be established in the use of handheld devices such as iPads/tablets and/or iPods to determine feasibility for expansion within the District.	Aug – June, each year
l	Students will be taught how to locate, access, and evaluate information and resources (including online reference databases) on the Internet. Search strategies will be taught as appropriate per grade level.	Aug – June, each year
m	Teachers and staff will receive appropriate training regarding the CCSS, revised curriculum Pacing Guides, productivity tools, Internet safety and digital/information literacy.	Aug – June, each year
n	District and site administrators will explore the feasibility for expanding elective courses and CTE/ROP offerings for students.	Aug – June, each year GO bond passed fall 2012, decisions on expenditures for CTE will be made over course of the Plan

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Students	<ul style="list-style-type: none"> • Elementary students will use technology to complete assignments • Middle and high school students will develop portfolios of technology-based work • High school students will complete a multimedia project prior to graduation
Teachers	<ul style="list-style-type: none"> • Make modifications in lesson delivery and assignments to incorporate technology and information literacy skills and to utilize technology tools more often in assignments • Assess student technology and information literacy skills per student-completed assignments/portfolios/projects aligned to standards • Assess student technology-based products per curricular goals and the revised curriculum Pacing Guides • Evaluate student technology-based work processes and products; teach/re-teach as needed; modify lessons for next year (e.g., choose to use a different technology to address a certain standard)
Library Staff	<ul style="list-style-type: none"> • Maintain schedules and records of library use by classes; evaluate library use and plan for improvements if needed • Provide assistance to classroom teachers as needed
Elementary Technology Facilitators	<ul style="list-style-type: none"> • Monitor teachers' use of textbook resources and other available electronic learning resources at school sites • Identify and make recommendations for specific skills training for teachers and site support teams • Provide assistance to teachers in the use of CCSS and technology support materials
Site Administrators	<ul style="list-style-type: none"> • Ensure that teachers have proper materials and technology tools • Monitor instruction in classrooms, libraries, and computer labs • Monitor teaching of digital/information literacy skills • Evaluate computer lab and library schedule/usage records • Monitor elementary student technology grades on their Standards-Based Report Card • Monitor middle and high school students portfolio work samples as evidence of meeting District Technology Learning Standards • Monitor high school student multimedia project completion as required prior to graduation
Director, Assessment and Instructional Support Services	<ul style="list-style-type: none"> • Oversee implementation of technology integration, Internet safety, and digital/information literacy • Monitor elementary student technology grades on their Standards-Based Report Card as well as middle and high school student portfolio and project completion.

Person Responsible	Monitoring, Evaluation, and Program Modification Process
and Director, Curriculum and Instruction	<ul style="list-style-type: none"> • Coordinate and monitor implementation of CCSS and the BUSD curriculum Pacing Guides and preparation for SBAC online assessments • Oversee provisions for ongoing professional development • Update District Technology Plan annually (Fall) in response to student achievement and District Survey results

3f. How the District will address the appropriate and ethical use of information technology in the classroom, including issues of copyright, fair use, downloading, file sharing, and plagiarism.

Bellflower Unified School District Board Policy states the governing body’s intent that “*all students use the internet in a safe, responsible, and proper manner in support of the District’s instructional program.*” District stakeholders regard instruction in the appropriate and ethical use of information technology as crucial to fulfilling the Board’s stated intent that students learn to use technology in a responsible and proper manner.

Board Policies are being reviewed and revised during Spring 2013 regarding student and staff use of technology to insure legal compliance and support for student acquisition of technology and digital literacy skills and Internet safety. These policies include the Internet Acceptable Use/Safety Policies for both staff and students. The District Network and Internet Acceptable Use Agreement and information are sent out annually in the back-to-school packet; they are to be returned and signed by both students and parents, before students are allowed to use online resources. As policies regarding student and staff use of technology are being revised, all staff will sign new Acceptable Use Agreements for the start of the school year in Fall 2013. Thereafter, all staff will sign upon being hired and then will reaccept annually. Additionally, the District’s mandatory annual Acceptable Use Agreement explicitly prohibits use of its network to transmit materials which violate intellectual property law; including the unauthorized sharing of music, video or any other material under copyright. Acceptable Use Agreements are strictly enforced as determined by site administration.

Site principals provide training and materials to staff regarding Internet safety and appropriate and ethical use of technology at the beginning-of- the-year staff meetings. Students receive materials and resources on these topics in their classes during the first three weeks of the school year using the NetSmartz curriculum.

GOAL 3f.1: All staff and students will be educated on the appropriate and ethical use of information technology in the classroom.

Curriculum Link: LEA Plan Goals 3 and 4

	Action Plan	Timeline
a	The Information Technology Department will review the District Internet and Technology Use agreements and acceptable use policies and procedures annually and suggest updates as needed.	Spring, each year Update as needed to comply with new legislation

	Action Plan	Timeline
b	Site principals and District administrators will ensure that all staff receives training and materials regarding the Acceptable Use and Safety policy and procedures, legal and ethical use of technology including copyright issues, and monitoring of student use of computers at the beginning of the year. New hires will receive training upon start of employment.	Fall staff meetings, each year
c	Assessment and Instructional Support Services will review and update the Internet Safety and information literacy curriculum including legal and ethical use of technology and Internet safety for students annually for use by teachers in class. The Director of Assessment and Instructional Support Services will provide training support as needed.	Review and update Spring, each year
d	Student users of District technology will receive classroom instruction including the use of the District-provided curriculum regarding the safe, ethical, legal, and responsible use of the Internet and of the District's Internet system including the rights and responsibilities under Board Policy.	Aug – June, each year
e	Technology course curricula embeds topics including, but not limited to, instruction regarding: copyright, fair use, appropriate and ethical use of information, Internet safety, avoiding plagiarism, lawful and unlawful online downloading.	Aug – June, each year
f	The BUSD Internet Acceptable Use Policy (AUP) will be included in every student's annual registration packet and every student that chooses to use the District network will have a signed (student and parent) AUP on file prior to being permitted to use the District network.	Fall, each year
g	Student use of the District Internet system will be supervised by staff in a manner that is appropriate to the age of students and circumstances of use.	At all times
h	The technology staff development program will include components on technology integration in the classroom, appropriate supervision, and ethical use of the Internet.	Aug – June, each year

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Teachers	<ul style="list-style-type: none"> • Monitor student use of District electronic information resources and the Internet to ensure appropriate use • Self-evaluate lessons related to instruction of copyright, fair use, appropriate and ethical use of information, and Internet safety • Use the CCSS, curriculum Pacing Guides, and Internet safety curriculum for instruction of copyrights, fair use, appropriate and ethical use of information, and Internet safety
Director, Assessment and Instructional Support Services	<ul style="list-style-type: none"> • Evaluate software resources for inclusion in District-approved software list • Annually evaluate Internet safety and information literacy curriculum to be used by teachers • Supervise and provide support for staff training regarding legal and ethical issues

Person Responsible	Monitoring, Evaluation, and Program Modification Process
and District Technology Team	of technology and Internet safety and related curriculum
Site Administrators	<ul style="list-style-type: none"> • Ensure that all students and teachers have signed the AUP which is filed appropriately • Ensure school compliance with District policies • Ensure staff has received training regarding legal and ethical compliance issues • Ensure that all students receive training regarding Internet safety, legal and ethical use, and digital/information literacy and that lessons are completed at each grade level • Conduct walkthroughs to evaluate and monitor appropriate technology use
Interim Director of Technology	<ul style="list-style-type: none"> • Review District policies annually for compliance with new legislation and make recommendations for revision • Annually evaluate effectiveness of monitoring/tracking procedures and make recommendations to site administrators • Monitor adequacy of Internet technology protection measures; recommend and implement upgrades as needed

3g. How the District will address Internet safety, including online privacy and avoidance of online predators.

As more home and personal technologies have connectivity to the Internet, Internet safety instruction is becoming more important. For the purpose of technology planning, the Citizens’ Task Force reinforced the importance of Internet safety as one of their top priorities. In support of this priority, the District’s Internet Safety Policy/Acceptable Use Policy (AUP) will be reviewed annually to ensure alignment with the Children’s Internet Protection Act (CIPA) and any future legislation and will be implemented with a monitoring process to ensure that 100% of students are protected.

Bellflower Unified School District Board Policy asserts the governing body’s intention to protect students from access to inappropriate matter on the internet. All district computers with internet access include technology protection measures that block, or filter access to, visual depictions that may be obscene, depict sexualized or pornographic situations, or may otherwise be construed as harmful to minors. The operation of these measures is continuously enforced, and District staff monitors all system activity.

In addition, the District’s board policies and mandatory annual Acceptable Use Agreement described in Section 3f above explicitly encourage students to guard their privacy against predators, instructing them against the dissemination of names, personal addresses, email contact information, or telephone numbers.

As of January 2013 and to ensure compliance with Protecting Children in the 21st Century Act “education of minors” requirements, the District has adopted the use of the NetSmartz Workshop curriculum. The BUSD curriculum Pacing Guides will also include issues specific to Internet safety, online privacy, and online predators.

At the elementary level, various programs provide education regarding bullying, such as Character Counts and Peace Builders. At the middle school level, site counseling staff members present anti-bullying material to students. Students discuss the various types and consequences of bullying, such as physical, verbal, social, emotional, or cyberbullying. High school classes focus much of their anti-bullying message on cyberbullying. Students also take and sign Cyber Pledges for Internet Safety as part of the NetSmartz Internet safety curriculum program.

Teachers, administrators, and/or library staff prescreen technological resources and online sites that will be used for instructional purposes to ensure that they are appropriate for the intended purpose and age of the students.

Filtering of the Internet to provide safe access to all students and employees for all District computers with Internet access has been via Lightspeed software, switching to iboss on July 1, 2013.

GOAL 3g.1: The District will promote a safe environment for online activities through appropriate policies and staff and student education.

Curriculum Link: LEA Plan Goal 4 and 5

	Action Plan	Timeline
a	The District’s Accessible Use Policy (AUP) will be reviewed to ensure alignment with the Children’s Internet Protection Act and will be implemented with a monitoring process to ensure that students and teachers are protected.	Spring, each year
b	Site principals and District administrators will ensure that all staff receives training and materials regarding the Acceptable Use and Safety policy; Internet safety, including online privacy and avoidance of online predators; and monitoring of student use of computers at the beginning of the year. New hires will receive training upon start of employment.	Fall staff meetings, each year
c	The District will continue to use content filtering and measures to protect against access to visual depiction that are obscene, child pornography, and materials that are harmful to minors, as defined by the Children’s Internet Protection Act.	Ongoing Moving to iboss filtering; July 1, 2013
d	Teachers will provide instruction to students on safe, ethical legal, and responsible use of the Internet and of the District’s Internet system; their rights and responsibilities under Board Policy; digital citizenship, maintaining a safe online profile, identity theft, online predators, harassment, humiliation, threatening, appropriate text messaging, and other aspects of cybersafety and cyberbullying with grade appropriate strategies and language using a District-provided curriculum.	Aug – June, each year
e	District and site administrators will address issues of legal and ethical use	Aug – June, each year

	Action Plan	Timeline
	of technology and Internet safety for all age groups using District-provided curriculum and/or district-selected online resources such as NetSmartz Workshop and BUSD curriculum Pacing Guides.	
f	Student use and activities will be structured in a manner that is appropriate to the age and skills of students, recognizing the importance of providing more secure environments for younger students and supporting safe, responsible, independent use by older students and monitored by teachers.	Aug – June, each year
g	Review the process for creating and maintaining an accurate list of non-signed AUPs and making the list available to teachers and counselors.	Annually
h	Ensure that AUP status is used by teachers and counselors so that no students are using computers without a signed AUP on file.	Annually
i	Technology course curriculum will be used, reviewed, and revised as needed to include, but not be limited to, instruction regarding: copyrights, fair use, appropriate and ethical use of information, Internet safety, online privacy, and avoidance of online predators.	Aug – June, each year
j	The technology staff development program will include components on technology integration in the classroom, appropriate supervision, and ethical and safe use of the internet.	Aug – June, each year

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Teachers	<ul style="list-style-type: none"> • Monitor student use of District electronic information resources • Monitor student use of technology for AUP violation
Site Administrators	<ul style="list-style-type: none"> • Ensure school compliance with District policies • Ensure that staff is provided training regarding Internet safety and legal and ethical compliance issues • Ensure that all students receive training regarding Internet safety, legal and ethical use, and online predators • Monitor communication of AUP process to teachers and counselors • Monitor individual student accounts for AUP compliance, oversee the removal of accounts for students in violation of AUP (or not signed) • Monitor completion of staff and student AUPs • Monitor student use of technology for AUP violations
Director, Assessment and Instructional Support Services	<ul style="list-style-type: none"> • Review and update Internet safety and information literacy curriculum annually • Coordinate and provide support for staff training regarding legal and ethical issues of technology and Internet safety
Interim Technology	<ul style="list-style-type: none"> • Review web filtering and Internet safety and monitoring software and analytical tools and address upgrades as needed

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Director	<ul style="list-style-type: none"> • Enforce filtering policies and spam/virus protection • Review District policies annually for compliance with new legislation • Annually evaluate effectiveness of monitoring/tracking procedures and make recommendations to site administrators • Evaluate the AUPs annually, modify as needed

3h. Policy or practices that ensure equitable technology access for all students.

The Bellflower Unified School District does not illegally discriminate on the basis of ethnic group identification, religion, age, actual or perceived sex, color, sexual orientation, gender, race, ancestry, national origin, mental or physical disability, or any other reason prohibited by State or Federal Discrimination Statutes in any program or activity conducted by the District. The District is ADA compliant and ensures equal and appropriate access to all students. If a student requires assistive technologies, they will be purchased to meet their needs, as outlined in their IEP.

The following chart outlines what is available to special populations at schools in the District:

Special Populations	Access
Advanced Placement	AP students are offered access to SAT and AP preparation software. Additionally, advanced students may enroll in online courses through higher education institutions and Nova Net, GradPoint, and OdysseyWare.
English Learners	English Learners are provided access through regular education classes. Electronic translators are available to sites through the Student Support Services office. Additional software such as Rosetta Stone, READ 180, Imagine Learning, Success Maker, Waterford, and Accelerated Reader are also used. When needed, instructional software is purchased in Spanish versions.
GATE	After school programs are available at the elementary schools providing additional technology access including computers, digital cameras, scanners, and video cameras.
Physical Disabilities	All students with physical disabilities are provided access through regular education classes. When needed, additional assistive technologies are purchased such as point sticks, track ball mice, large print readers, and voice recognition programs. The District ensures all facilities including computer labs have wheelchair accessibility.
Special Education	Special education students are provided access through their regular education classes. Additionally, specific diagnostic remedial/ reinforcement/ and enrichment software such as Accelerated Reader and READ 180. After school and extended year programs for special education students also utilize these technologies.
Title 1	All Title 1 students are provided access through regular education classes. After school and extended year programs utilize technology,

Special Populations	Access
	including, but not limited to, Accelerated Reader, Accelerated Math, Success Maker, Waterford, and READ 180.

The District will continue to examine existing funds and explore sources of funding for increasing the number of computers and/or handheld devices available for student use toward providing expanded access to students. The District will continue to provide leadership and training for site administrators and will seek grant/funding opportunities and community partnerships.

3i. Technology use for efficient student record keeping and assessment in support of teachers’ efforts to meet individual student academic needs.

Current administrative uses of technology include Aeries administrative software for student demographics, scheduling, standardized test scores, grades, transcript data, assessments, attendance data, discipline data, bilingual information, and medical and emergency data. Access is provided to all site principals, counselors, attendance clerks, secretaries, school health personnel, and District level personnel. At the middle and high schools, all teachers have access over the District intranet and the Internet cloud to the web-based Aeries-net for online attendance reporting, grade book, grade history, grade reporting, and web-based access to an important subset of student discipline records and student demographics. The Parent Portal is available for use at the secondary level. Elementary use of Aeries attendance, gradebook, and parent portal will expand.

Based on state requirements for interface with the California Longitudinal Pupil Assessment Data System (CALPADS) system, the District has also identified a need to continue to upgrade and modify the Aeries system to provide the California Department of Education (CDE) and the District’s Central Office with near real time access to a broad array of student and stakeholder data. The District has obtained the next generation Aeries.net platform and will train staff in its use, with full implementation in 2013-14.

Driven by the complex demands of the state’s assessment and accountability system, and a desire to make solid, standards-based assessments a feature of every classroom, the District utilizes the Data Director web-based assessment data warehouse as its solution of choice. Data Director utilizes regular uploads from the Aeries system, an on-demand item bank, an extensive database of California state standards, and scanned data input capability to provide all teachers and instructional staff with secure, any time, any where, access to students’ instructional histories and a comprehensive a set of state of the art collaboration tools. Data Director will be replaced with another assessment and data management system beginning in 2013-14.

Regarding BUSD’s assessments, a Writing Baseline for Grades K-6 is given in September with the Grade K-6 Writing Benchmark given in May. Elementary Benchmarks for Math, ELA, and Science are given three times a year. Secondary Benchmarks for ELA, Math, Science, and Social Science are given four times a year. Grade K-1 ELA Benchmarks are given twice a year. Data Director makes District-wide student level benchmark results available to teachers within one week after scanning and scoring. During the course of this plan the District will undertake to shorten this timeline. Because of Common Core implementation, benchmark assessments for

History-Social Science and Science will not continue beyond 2012-13. In the future, Synced Solution will provide common assessments at the end of each unit for ELA and math.

SEIS software is use for Special Education IEPs and case management. In the next 12 months the District will implement a centralized library/textbook system (purchasing Follett Destiny) for use at all schools.

GOAL 3i.1: Teachers and administrators will use technology for efficient student record-keeping and assessment data management.

Curriculum Link: LEA Plan Goals 1, 2, 4, and 5.

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
3i.1.1	By June 2016, 90% of teachers will use formative and summative assessments to monitor and modify instruction as determined by their site administrators.	70%	80%	90%

	Action Plan	Timeline
a	District will ensure that all teachers have an appropriate computer available in their classrooms for their use.	Aug – June, each year
b	The District is moving to the use of the GradeCam scoring system for multiple choice assessments (a free online service with scanning done using document cameras). The goal is for each classroom to have a document camera connected to a computer.	All classrooms to have document cameras by 2016
c	Student state and local assessment data will be accessible online to administrators and teachers through the Aeries student information system and Data Director or other assessment and data management system.	Aug – June, each year
d	Staff will continue to access the student information system, Aeries.net, for grade posting and secondary attendance. District will provide ongoing training on the use of Aeries.net. The use of Aeries for attendance, Gradebook, and parent portal will be expanded to elementary schools.	Aug – June, each year Grades K-2 use expanded, 2013-14 Grades 3-6 use expanded, 2014-15 Training; Fall, each year
e	As the CCSS are implemented, the Smarter Balanced Interim assessments or other similar assessment may be used to measure student progress over time.	Quarterly, each year
f	Data Director will be used through end of June 2014, after which it will be replaced by a new product. Options will be explored.	Evaluate options and acquire new system, running in parallel with Data Director, 2013-14

	Action Plan	Timeline
		New system only, beginning 2014-15
g	Teachers and support staff will continue to work in Professional Learning Communities to review and use data to inform instruction and develop common assessments toward increasing student achievement.	Monthly, each year
h	Students will continue to take state and District tests and participate in technology-related assessments.	Aug – June, each year
i	Teachers will utilize assessment and test data to analyze trends and drive instruction in their content courses.	Aug – June, each year
j	Install software and provide training for use of new library and textbook management system (Follet Destiny) for all schools.	Starting, Spring 2013

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Teachers	<ul style="list-style-type: none"> • Access student assessment data and reports • Evaluate student data within Professional Learning Communities in collaboration with site administrators to use data to drive instruction • Communicate information about grades and assessments to parents
Site Administrators	<ul style="list-style-type: none"> • Monitor professional development needs relating to use of assessment data • Ensure that SBAC Technology Readiness Tool Survey is filled out for/by each school annually each Spring • Schedule and attend staff collaboration meetings, review reports or notes of collaboration meetings, and review usage/access records of Data Director and new assessment/data management system
Director, Assessment and Instructional Support Services	<ul style="list-style-type: none"> • Oversee the process for use of the assessment/data management system, evaluate effectiveness, determine needs, and coordinate professional development; plan for future use or replacement • Oversee efforts to plan and prepare for CDE statewide online assessments • Conducts periodic site visits and participates in principal and monthly administrator meetings to communicate progress and updates • Access and distribute information regarding SBAC updates, will complete SBAC surveys as developed, will attend CDE trainings regarding Common Core assessments, and will coordinate district trainings and provide support for statewide online assessments within the District • Evaluate need for professional development relating to use of assessment data for teachers and site administrators • Ensure teachers receive professional development for grade programs, assessment tools, and preparation for upcoming CDE online student assessments • Work with principals to coordinate training, resource allocation, and implementation

Person Responsible	Monitoring, Evaluation, and Program Modification Process
	<ul style="list-style-type: none"> • Monitor implementation and report progress to stakeholders • Monitor elementary technology grades, CA High School Exit Exam results, API growth targets, and grade level standards for technology; oversee expansion of benchmark tests
Interim Technology Director	<ul style="list-style-type: none"> • Holds monitoring and evaluating responsibilities for use of Aeries • Work with district technology staff to provide related Aeries training

3j. Technology use to improve two-way communication between home and school.

Two-way communication between home and school happens in a variety of ways including face-to-face, phone, the Blackboard Connect auto-dialer, email, newsletters, notes and reports home, District website and school webpages. All high school teachers have access to telephones and voicemail in their classrooms. Elementary teachers have access to office phones and are notified of phone messages. A VoIP system has been acquired and implementation will be completed by 2014.

The District’s website (<http://www.busd.k12.ca.us>) contains district information, school accountability report cards, job openings, the District’s mission statement, calendars, school site and district contact information, high school newsletters, and information regarding Board members and district personnel. Links to individual school webpages with direct contact information for site principals and links to teacher emails are also found at the District website.

All district personnel have access to an active email account in the District’s domain. The District also supports access to private web mail for adult employees. Some teachers maintain individual teacher websites outside of the District domain.

Parent access to Aeries was enabled for the District’s secondary schools in late September 2009. The BUSD implementation of the parent web link to Aeries allows authorized parents secure, private, real time access to their student’s demographic data, transcript, class schedule, standardized test scores, contact information, graduation status and teacher’s grade book. Use by teachers varies.

In order to develop consistent practices in use of District/school websites, the District is engaged in long-term planning for expanding District/school web utilization by enhancing its ongoing use of Aeries and a telecommunications-based solution, Blackboard Connect. Additionally, the District encourages the posting of teacher developed and maintained websites inside the District domain.

Beyond use of technology for communication purposes, the Bellflower USD strongly values and strives to provide one-on-one parent/teacher interaction. Parents on the Citizens’ Task Force commented on technology-based communications as follows:

- Like the use of the Parent Portal as a connection between families and school as students can hide nothing. However; only available at the secondary level.
- They are concerned about teachers not updating information to the Parent Portal in a timely manner.
- Some expressed concern about unnecessary parent notifications.
- Have received Blackboard phone messages but don't know if sites are using the email and text capability at this time.
- Like access of email to and from teachers.
- Communication is better and getting better, continued improvement needed.

Members of the Citizens' Task Force have requested parent training including:

- Learning about search engines – how to explore, do things
- Helping parents learn how to research on the Internet so they can assist students at home
- Let parents know what technology classes are available locally and how they will be able to apply what they learned at the classes.
- Teach parents how to use productivity applications.

Some sites are using web-based software like Type to Learn 4 and SuccessMaker for Grades 3-6 for math and English language arts that can be accessed within school and at home by students.

Through the Las Flores Education Center, parents can take online classes in the use of technology applications, parenting strategies, and strategies to support their child's learning.

GOAL 3j.1: The District will use technology to enable and improve two-way communication between school and homes.

Curriculum Link: LEA Plan Goals 4

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
3j.1.1	By June 2016, the District will expand the use of the telecommunication-based parent information and notification systems through the use of Blackboard Connect for fines due, unexcused absences, and upcoming events.	Expand use	Monitor and refine	Monitor and refine
3j.1.2	By June 2016, all teachers will use the parent portal to communicate with parents to include elementary sites.	40%	50%	100%
3j.1.3	By June 2016, teacher websites within the District domain will be used for communications and teacher use will increase to 75%.	Pilot 10%	Expand 40%	Expand 75%
3j.1.4	BUSD will maintain high speed voice and data networks including phone systems at each site.	100% Install VoIP	100%	100%

	Action Plan	Timeline
a	All staff will have and use district email accounts. Some teachers and students are piloting the use of Gmail for students as the District moves to use of Google Drive and Apps.	Aug – June, each year
b	District and site administrators will encourage and promote staff use of electronic communications media (websites, email, and parent portal), in order to facilitate better home/school communication. Administrators will be trained to monitor websites.	Aug – June, each year
c	The District and schools will develop/maintain/keep up-to-date District and school websites, including information for parents. The District is exploring the use of a web-hosting service.	Aug – June, each year
d	All schools will have up-to-date phone systems. The District has centralized Cisco IP Telephony (Call Manager / Unity voice mail), which is two-thirds implemented as of February 2013. High schools have voicemail access for all sites and classrooms toward increasing communication with parents.	Ongoing, each year Full implementation, during 2014
e	Information Technology Department will promote and provide staff training in the use of Aeries.net and Blackboard Connect for parent communication. Principals will encourage teachers to post information to Parent Portal for access by parents. Parental portal access is now available at secondary level; this will be expanded to elementary grades.	Aug – June, each year Parent Portal for Grades K-2, 2013-14 Parent Portal for Grades 3-6, 2014-15
f	Principals and Site Technology Facilitators will coordinate site technology trainings for parents as needed. Main topics will include information on using the parental portal, District and school websites, Internet safety, and other relevant online resources. Language translation will be provided as needed.	Aug – June, each year
g	The Interim Technology Director will assess instructional needs regarding bandwidth and network upgrades and make recommendations to Associate Superintendent of Business and Personnel Services for future planning and implementation.	Spring, each year

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Teachers	<ul style="list-style-type: none"> • Use email, teacher portal, and webpages to communicate with parents
Site Administrators	<ul style="list-style-type: none"> • Ensure that all staff have email accounts and that the District email system is reliably available; they will ensure that checks are made • Monitor use and updates of site and teacher webpages and use of Parent Portal • Communicate needs and coordinate training for staff • Ascertain need for parent training; facilitate and evaluate training
Interim Technology Director	<ul style="list-style-type: none"> • Monitor parent access through Aeries Parent Portal; analyze problems, suggest or make changes to the processes and procedures • Ensure that all staff have email accounts and that the District email system is

Person Responsible	Monitoring, Evaluation, and Program Modification Process
	reliably available <ul style="list-style-type: none"> • Monitor need and processes for network use and need for upgrades • Continue to expand use of Aeries.net including the use by elementary schools • Annually monitor the adequacy of Internet access, the WAN, wireless network, and phone systems to determine upgrades needed and to be addressed
Assistant Superintendent, Instructional Personnel and Programs	<ul style="list-style-type: none"> • Monitor and evaluate needs for professional development to coordinate efforts with site principals • Monitor use and standardization of web site content

3k. Monitoring of Curriculum Component

Processes for monitoring, evaluation, and program modification are addressed for each goal within sections 3d-3j. Using the tools and processes described, the responsible person will collect data about each activity or benchmark. The Assistant Superintendent of Instructional Personnel and Programs, the Director of Assessment and Instructional Support Services, the Director of Curriculum and Instruction, and the Interim Technology Director have responsibility for oversight of the overall process for monitoring and evaluating all goals, objectives, and benchmarks related to the Technology Plan. The team meets with principals monthly for updates and information collection regarding Technology Plan implementation to monitor Plan progress and assess needs. They review relevant data and make recommendations for program modifications. These recommendations and modifications are shared with the BUSD Technology Team at monthly meeting. Updates to other stakeholders are provided through online postings, email, and regularly scheduled staff meetings.

4. PROFESSIONAL DEVELOPMENT COMPONENT

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

In December 2012 and January 2013, teachers were surveyed to determine their technology professional development needs. Over half the teachers in the District responded to the survey. Some responded that they needed new technology or currently had none. Their responses indicate the following training needs as being the most requested:

- Integrating technology into curriculum and instruction
- Utilizing technology (e.g. PowerPoint, document cameras, SMARTBoards, tablets)
- Selecting and implementing grade level and content appropriate software
- Exploring and expanding the use of Data Director

Additionally, all teachers in the District take an annual staff development survey in the spring, which includes a technology section that asks them to prioritize their technology professional development needs. Results on the Spring 2013 survey indicate the following needs as related to technology:

- Common Core State Standards
- Developing student literacy skills
- Document cameras
- Google Sites and Google Drive
- Interpreting benchmark results
- Standards-based grading
- Differentiating instruction based on data analysis

The following goal describes what is expected of administrators to manage and lead their school sites in using technology:

- School financial and personnel management
- Core academic content standards
- Curriculum Frameworks and instructional materials aligned to the CCSS
- The use of student assessment instruments and specific strategies to master the use of STAR and SBAC assessment data
- Instructional leadership and management strategies regarding the use of instructional technology to improve student performance

Some site administrators are proficient in using technology for communications, research, data access and review, and presentation. Administrators are provided ongoing trainings as needed. Needs indicated by administrators on a March 2013 survey indicate the following:

- How to evaluate and select appropriate technological and online resources to create technology enhanced lessons aligned with standards
- The effective use of technology in standards-based lessons
- The use of technology to enhance and improve effectiveness of instruction
- Technology in lessons and assignments to increase students' ability to plan, locate, evaluate, select, and use information to solve problems, draw conclusions, and develop higher-order thinking skills
- Data Director and the analysis of test scores
- Excel spreadsheets and how to use it in a strategic manner for daily tasks
- How to create reports from the programs we have – SuccessMaker and Waterford – to better assess student progress
- Best use of iPads and Mobis
- Google Docs and Apps and sharing, site resources, calendars, etc.

Principals were asked to complete a survey in March 2013 in order to determine the level of technology skills and technology integration proficiency of teachers throughout the District. Each principal indicated how many of the teachers at his or her school fell into each of three proficiency levels in key skills selected from CCTC Standards 9 and 16:

Level 1: Non-user (may not have the necessary hardware or software) or beginner or occasional user. Not very confident. Definitely needs professional development.

Level 2: Does regularly. Generally competent and confident. Could use professional development for growth in some areas of the skill.

Level 3: Highly competent and confident; innovative or eager to try new things. Could serve as a model for other teachers.

Many principals polled their teachers, asking them to rate themselves; others based their responses on their own knowledge and observation of teachers at their site. Results are shown in the chart below.

Technology Skills and Technology Integration Proficiencies	CCTC Standards	District Teachers at Level 1	District Teachers at Level 2	District Teachers at Level 3
Knows basic operating principles of computer hardware and software, including basic troubleshooting skills.	9c	11% (59)	63% (340)	26% (138)
Knows/uses presentation hardware <u>and</u> software in lessons (e.g. LCD projectors, document cameras, Mobis, interactive whiteboards, student response systems; presentation and/or lesson-design software)	9c, 16c	29% (154)	56% (299)	16% (84)
Knows and uses a productivity suite (e.g. Microsoft Word	9d	24%	52%	24%

Technology Skills and Technology Integration Proficiencies	CCTC Standards	District Teachers at Level 1	District Teachers at Level 2	District Teachers at Level 3
and Excel or similar online applications)		(121)	(264)	(122)
Demonstrates knowledge of and compliance with issues of Internet safety and ethical use (e.g. copyright, privacy, security, cyberbullying, and Acceptable Use Policies)	9i	14% (76)	63% (338)	23% (124)
Competent in the use of online research tools (searching, databases, teacher resource sites) and the ability to assess the authenticity, reliability, and bias of the information gathered.	9h	18% (96)	59% (318)	23% (122)
Evaluates and selects appropriate technological resources (devices, software, online resources) to create technology-enhanced lessons aligned with the adopted curriculum.	9a, 9f, 9g, 16c	33% (175)	53% (286)	14% (76)
Involves technology in lessons and assignments to increase students' ability to plan, locate, evaluate, select, and use information to solve problems, draw conclusions, and develop higher-order thinking skills.	16d, 16e	40% (204)	48% (242)	12% (58)
Interacts with other professionals using technology (e.g. email, Twitter, discussion boards, blogs, wikis, lesson sharing sites)	9e, 16a, 16b	29% (153)	54% (291)	17% (92)
Communicates with parents and students using technology (e.g. email, class webpages)	16a	19% (102)	62% (333)	18% (98)
Uses computer applications to access and analyze data as a tool for assessing student learning, providing feedback to students and parents, and planning instruction/ interventions.	16f, 16g	24% (127)	60% (319)	16% (85)

Relative strengths are shown in knowledge of basic operating principles of computer hardware and software (87% Level 2 or 3), Internet safety and ethical use (86%), use of online research tools and assessing information found (82%), and communicating with parents using technology (80%). Notable weaknesses are shown in involving technology in lessons and assignments to increase students' information skills and higher-order thinking (40% Level 1 with only 12% at Level 3) and evaluating and selecting appropriate technology resources to create technology-enhanced lessons aligned with the adopted curriculum (33% at Level 1; only 14% at Level 3).

On the same March 2013 survey, principals indicated the following as site needs for professional development:

- Technology-based lessons aligned with standards
- Need updated, newer computers in our labs and classrooms
- Training on Google Docs and Apps and sharing, Gmail, calendars, etc.

- Basic operation of programs such as Power Point, Word, and Internet navigation
- Interactive whiteboards and Mobis with CPS systems
- How to use Data Director effectively
- How to involve technology into lessons and assignments not solely as a presentation tool or as a piece of information or image providing content to students but to enhance lessons
- For Common Core, students will need to be able to access information on-line, organize the information, and use it to solve and analyze problems or text in writing
- The basic everyday needs in regards to technology that may be needed for appropriate school functions
- Make sure that all staff development is equally accessible to all teachers and done follow-up to the training and refreshers
- Integrating technology for Smarter Balanced testing
- Teachers should sign up for “in-house” courses they need and be able to show proficiency in those skills. Example:
 - Course 1, Basic Computer: Understanding the Windows hierarchy (Drive > Direct Folder > File), how to organize and save work, and email.
 - Course 2, Teacher Resources: Grading applications, Excel, PowerPoint, YouTube, and searching the Web for teacher resources
 - Course 3, Creating: Make a standard into a link that links to your lesson. Make a year-long plan that is organized on the computer and not in a file drawer.
- Knows and uses presentation hardware and software in lessons (e.g. LCD projectors, document cameras, Mobis, interactive whiteboards, student response systems; presentation and/or lesson design software)

4b. Plan for providing professional development opportunities based on the needs assessment and the Curriculum Component.

In order for students to master technology and be able to use it in alignment with curriculum goals, all teachers at the Bellflower Unified School District will need to be provided with the necessary training and support to learn and to utilize technology in the classroom. Thus, the District recognizes the need for providing ongoing, comprehensive professional development opportunities and support for teachers in using existing and new technologies and electronic resources as they are implemented. This is especially important as the BUSD curriculum Pacing Guides are revised including a focus on student technology and digital literacy skills. The curriculum Pacing Guides will concentrate on technology and information literacy skills as related to the newly adopted CCSS for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects and the National Educational Technology Standards for Students (NETS*S).

Professional development opportunities will be offered to administrators, teachers, and support staff based on the needs assessment (4a) and the Curriculum Component goals, objectives, and

action plan. Training will focus on providing teachers with the level of technology proficiency necessary to teach their students technology and information literacy skills, to access and use assessment data to improve instruction, and to use technology more frequently in student assignments.

Past professional development training for BUSD staff has included:

- Content standards
- Direct Interactive Instruction
- Nancy Fetzer Writing Techniques and Strategies
- Aeries Users' Conferences
- Computer Using Educators Conference
- ISTE Conference
- Aeries ABI
- Data Director
- Assessment Team trainings
- SBAC trial and online pilot tests and STAR try-out tests

In order to successfully implement this plan to meet the professional development goals of its staff, the District will need to:

- Develop training opportunities to support the implementation of technology including training specific to new or added features of District adopted software including Aeries.net and data management systems.
- Offer compensation for trainers and trainees.
- Offer equipment, software, or other incentives, when available.
- Allow time for curriculum development through professional learning communities and other professional development opportunities.
- Incorporate components of technology training into other staff development activities

Because the needs within the District are so diverse and varied especially because of the implementation of Common Core State Standards and the preparation for SBAC Online Assessments, the District will need to provide a wide range of options, flexibility, and resources for professional development District-wide and on school sites. As such, promotion of those options and opportunities will be critical.

Professional Learning Communities (PLCs) will continue focus on use of data to drive instruction and share instructional strategies. At the end of each Benchmark assessment (at the trimester in elementary and quarterly in secondary), PLCs will analyze Benchmark results data and determine Response to Intervention measures to assist students who performed at Basic or Below Basic Proficiency. Appropriate instructional strategies for English learners in ELA and mathematics will be discussed for follow-up implementation in classrooms.

Additionally, the District will provide a District professional development conference each August for teachers, offering sessions targeted to teacher needs as assessed through the annual

technology and staff development surveys. The sessions will be led by district experts and/or professional presenters, as appropriate.

GOAL 4b.1: The District will provide high-quality, comprehensive, ongoing, sustained professional development for teachers, administrators, and classified staff.

Curriculum Link: LEA Plan Goals 1, 2, 3, and 4

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
4b.1.1	During the plan period, 100% of teachers will receive training to design and implement lessons aligned to the Common Core State Standards, to use technology in the classroom to personalize instruction, and/or to use effective instructional strategies using technology.	50% trained	75% trained	100% trained
4b.1.2	By June 2016, 85% of teachers will be rated as Level 2 proficient or above as determined by a Site Proficiency Survey on technology skills and technology integration as an average overall across all categories.	80%	83%	85%

	Action Plan	Timeline
a	Under the supervision of Director of Curriculum and Instruction, teachers will be trained on the use of the revised BUSD curriculum Pacing Guides aligned to CCSS.	Beginning Aug, 2014 Fall, each year thereafter
b	Teachers will also be trained in the use of The Synced Solution for CCSS implementation and assessment.	Grades K-2, 2013-14 Grades 3-12, 2014-15
c	Instructional staff training will focus on implementation of the CCSS including technology integration, information literacy instruction, and Internet safety.	July – June, each year
d	Staff will be provided trainings in hardware and peripheral use, productivity applications, content and online resources, and use of the Aeries.net portal and Blackboard Connect to communicate with parents.	July – June, each year As schools acquire new presentation equipment.
e	Librarians will receive training on the use of Follett Destiny for implementation during 2013-14.	Fall, 2013
f	Technical staff attends Aeries training annually and outside trainings through conferences and workshops from outside vendors as needed and approved. Training is provided as needed as new equipment or applications are acquired to implement use of technology District-wide and at school sites. Informal training between technical staff occurs on an ongoing basis.	July – June, each year
g	The District will provide flexible training options, such as before/after school, Saturdays, summer academies, off-track, in-class modeling, small group, one-on-one, online, and sub release. Some training will be required and some will be optional to support those who wish to improve their skills.	July – June, each year

	Action Plan	Timeline
h	Training will be provided by the most appropriate of the following: district and site administrators/staff, textbook publishers, Los Angeles County Office of Education, local community college and university partners, CTAP, CDE, data analysis services, and other outside consultants. Workshops, conferences, online and distance learning resources, and other professional development opportunities will also be promoted to staff as available and approved.	July – June, each year
i	On-site assistance and support, including follow-up to more formal training, may be provided by site Technology Facilitators.	Aug – June, each year
j	The Instructional Services Team coordinates and develops the Professional Development Plan including technology training.	Spring, each year Update Jan, each year
k	Under the supervision of the Director of Assessment and Instructional Support Services, preparation and training for the new statewide accountability online assessments (Common Core State Standards) will be coordinated and provided as information becomes available.	Each semester, each year
l	Teachers and support staff will be trained to use the Statewide CDE Online Portal (Brokers of Expertise) for implementation of the CCSS to access supplemental instructional materials and resources.	Fall, each year
m	Under the supervision of Director of Assessment and Instructional Support Services, District/site administrators and teachers will be trained regarding the Internet safety policy and Acceptable Use Agreement and related responsible-use issues. Teachers will be trained to provide direct instruction to students on Internet safety including issues of cyberbullying and respect for the intellectual property of others using District-provided materials.	Fall orientations, each year
n	Teachers and administrators will be trained on technology components of SBE-approved adopted core, supplemental and intervention materials, (including software and resources for English Learners) by vendors, teacher leaders, or county consultants.	Aug – June, each year
o	Teachers and administrators will be trained by consultants and/or Instructional Support Services personnel to access and analyze assessment reports through Data Director or other software to drive instruction, and in constructing, administering and analyzing standards-aligned assessments.	Aug – June, each year New data assessment/ management system, 2013-14 and 2014-15
p	Teachers and administrators will be trained by the Information Technology Department, vendors, and other designated staff on Aeries.net for online grades, attendance, and use of the gradebook.	Aug – June, each year
q	Site and District administrators will continue to provide opportunities for teachers through Professional Learning Communities and other District/staff meetings to plan and share trends, ideas, student projects and products, best practices, and lessons that integrate technology. Other options for sharing successes including use of websites, newsletters, and email will be explored and implemented as feasible.	Monthly at PLC and/or staff meetings, each year

	Action Plan	Timeline
r	The Instructional Services Team will inform staff about training opportunities via a District professional development calendar, fliers, email, and notices to site administrators for dissemination to staff	Aug – June, each year
s	Opportunities for fee-based online training through the Las Flores Educational Center will be promoted and encouraged.	July – June, each year
t	Special Education teachers will receive training on the use of SEIS.	Annually, each year
u	Classified staff needs will be assessed annually and training provided as needed by District staff.	Aug – June, each year

4c. Monitoring Process for Professional Development Component

Professional Development will be adjusted as needed to meet academic needs and fulfill the requirements of this Technology Plan.

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Teachers	<ul style="list-style-type: none"> • Redesign lessons and assignments to incorporate CCSS and BUSD Technology Learning Standards • Complete evaluations from formal district and site trainings • Complete the District Technology Use and Needs Survey annually each Fall and District Professional Development Survey each Spring
Site Administrators	<ul style="list-style-type: none"> • Analyze results of the District Technology Use and Needs Survey; determine need for and schedule site-based technology trainings • Complete Site Technology Proficiency Survey each Spring based upon teacher observation • Assess, communicate, and arrange for classified staff needs for training • Informally observe/look for specific uses of technology after teachers have taken part in training • Conduct weekly classroom walkthroughs to observe teacher instructional methods and use of technology • Data from classroom walkthroughs aggregated regularly • Ensure teachers take the District Technology Use and Needs Survey in the Fall and the BUSD Professional Development Survey in the Spring • Facilitate implementation of revised BUSD curriculum Pacing Guides • Ensure training of staff on AUPs, Internet safety, and legal/ethical use of technology • At end of year, analyze success/appropriateness of trainings offered and consider improvements for the following year

Person Responsible	Monitoring, Evaluation, and Program Modification Process
Instructional Services Staff	<ul style="list-style-type: none"> • Maintain records of work with teachers (individuals and groups) • Develop/collect/maintain agendas, sign-ins, and participant evaluations after training sessions • Analyze evaluations; decide on training modifications as needed • Collect anecdotal evidence of teacher use of technology; observe classrooms and share information with site and District administration
Interim Technology Director	<ul style="list-style-type: none"> • Administer District Technology Use and Needs Survey to teachers in the Fall • Supervise the technical support needed to implement trainings • Maintain and upgrade technology infrastructure and systems to support instructional programs • Ensure that hardware and software remains up to date and is well maintained for ease of use in the classroom and readiness for implementation of new applications • Oversee training in regard to Aeries, email, voicemail, and other technology-related systems • Consult with Instructional Services Team to establish priorities in regards to hardware, software, and service needed to effectively implement the technology plan • Supervise completion of District and site SBAC Surveys
Director, Curriculum and Instruction and Director, Assessment and Instructional Support Services	<ul style="list-style-type: none"> • Administer BUSD Professional Development Survey each Spring • Works with Assistant Superintendent of Instructional Personnel and Programs to coordinate and monitor District-wide professional development opportunities • Coordinate district-wide technology trainings and support to school sites • Analyze results of District Technology Use and Needs Survey and Professional Development Survey to determine needs for training • Coordinate the annual development of the District professional development calendar. Agendas, sign-in sheets, and evaluations forms will be kept after formal training sessions • Oversee the Professional Development Plan, technology needs determined by examining District Surveys, and monitoring of Curriculum Component of the Technology Plan • Oversee planning, implementation, and training regarding CCSS, revised BUSD curriculum Pacing Guides, and new statewide online assessments. • Work with Principals to establish priorities for and monitor district-wide professional development • Supervise, coordinate, and communicate professional development calendar and training opportunities • Supervise training of new teachers

Person Responsible	Monitoring, Evaluation, and Program Modification Process
	<ul style="list-style-type: none">• Collect and analyze results from formal district and site trainings. Determine the need for further professional development

5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT

Bellflower USD recognizes that educational technology in the District needs to be updated and considerably upgraded in order to support teaching and learning of the Common Core State Standards and 21st Century skills, prepare students for college and career, and support new online state assessments. This section of the Technology Plan presents a vision and roadmap for District and school site stakeholders to guide decision-making in allocation of funding – what needs to be acquired, for which sites, and approximately what it would cost to make the vision a reality.

5a. Existing hardware, Internet access, electronic learning resources, and technical support that will be used to support the Curriculum and Professional Development Components.

AND

5b. Hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed to support the Curriculum and Professional Development Components.

Hardware:

Computers:

Existing: The District is dual platform utilizing Windows-based systems and some Apple Macintosh computers, as per site decision. The following chart shows an estimate of the total number of computers at each school and ratios of students to total computers and students to computers less than 60 months old. The chart is based on February 2013 enrollment figures and the number of computers detected by the network during several days in March 2013, adjusted up to account for those computers not turned on during these days.

School	Student Enrollment (2013)	Total computers	Student: computer ratio	Total comp < 60 mos	Student: Comp < 60mos ratio
Baxter Elementary	509	170	3.0 : 1	47	10.8 : 1
Foster Elementary	718	140	5.1 : 1	102	7.0 : 1
Intensive Lrn Center	556	140	4.0 : 1	90	6.2 : 1
Jefferson Elementary	669	148	4.5 : 1	80	8.3 : 1
Las Flores	36	32	1.1 : 1	26	1.4 : 1
Lindstrom Elementary	877	167	5.3 : 1	78	11.2 : 1
Pyle Elementary	555	163	3.4 : 1	113	4.9 : 1
Ramona Elementary	680	216	3.1 : 1	132	5.2 : 1
Washington Elementary	847	226	3.7 : 1	124	6.8 : 1
Williams Elementary	854	215	4.0 : 1	119	7.2 : 1
Woodruff Elementary	688	204	3.4 : 1	147	4.7 : 1

School	Student Enrollment (2013)	Total computers	Student: computer ratio	Total comp < 60 mos	Student: Comp < 60mos ratio
Elem. Total	6,989	1,822	3.8 : 1	1,057	6.6 : 1
Bellflower HS	2,843	460	6.2 : 1	373	7.6 : 1
Mayfair HS	3,289	508	6.5 : 1	302	10.9 : 1
Somerset CHS	284	167	1.7 : 1	78	3.6 : 1
Alt. Ed. Center	24	27	0.9 : 1	27	0.9 : 1
HS / Alt Total	6,440	1,153	5.6 : 1	780	8.3 : 1
District Total	13,429	2,975	4.5 : 1	1,838	7.3 : 1

The following chart shows the age of computers at each school as shown in the March 2013 network sweep (only computers turned on during the sweep).

School	<1 yr old	>1 and <2	>2 and <3	>3 and <4	>4 and <5	>5 years
Baxter	0	0	0	0	39	98
Foster	1	4	2	0	88	18
Intensive Lrn	2	0	0	15	66	30
Jefferson	42	0	0	0	31	46
Las Flores	19	0	2	0	5	3
Lindstrom	29	0	0	0	41	64
Pyle	41	0	0	15	49	26
Ramona	36	0	1	0	84	53
Washington	39	0	31	0	43	69
Williams	69	4	1	5	29	65
Woodruff	78	0	1	20	38	27
Elem. Totals	356	8	38	55	513	499
Bellflower HS	105	24	37	2	183	19
Mayfair HS	32	0	3	41	201	132
Somerset CHS	4	6	1	5	54	64
Alt. Ed. Center	0	0	1	26	0	0
HS/Alt Totals	141	30	42	74	438	215
District Totals	497	38	80	129	951	714

Almost all elementary school classrooms have at least one student computer; however, many of these are 5 years old or more. At the comprehensive middle/high schools, about one third of classrooms have at least one student computer.

Need: Ratios of students to computers less than 60 months (5 years) old, as follows: 5:1 at each elementary school; 4.75:1 at each comprehensive high school; 2:1 at Somerset Continuation High School; 1:1 at Bellflower Alternative Education Center. Options for “computers” include

desktops, laptops, netbooks, tablets, and thin client devices.

At least two student computers less than 60 months old in each elementary classroom; at least one student computer less than 60 months old in each secondary classroom (with classroom pods of 6-12 computers less than 60 months old at BAE). In addition, some older computers becoming available when labs are refreshed may be able to be repurposed to less demanding uses in classrooms, including use as thin client devices. (Placement of student computers may depend on installation of wireless networking.)

To be Acquired: The following chart shows the minimum number of computers (or other computing devices) that would need to be purchased in the period March 2013 – June 2016 in order to meet and maintain the desired objectives, assuming that enrollment remains steady. Includes computers for staff and for students in classrooms, labs, and libraries.

School	Enrollment (2013)	# of computers <60 mos (estimate, adjusted from network sweep)	# of new computers needed to meet desired ratio and maintain it				Approx. addtl student classroom comp. needed	Total needed 3/2013 – 6/2016
			To meet ratio	2013-14 replacements	2014-15 replacements	2015-16 replacements		
Baxter Elementary	509	47	55	39	0	0	33	127
Foster Elementary	718	102	42	88	0	2	14	146
Intensive Learning Center	556	90	21	66	15	0	36	138
Jefferson Elementary	669	80	54	31	0	0	0	85
Las Flores	36	26	0	5	0	2	0	7
Lindstrom Elementary	877	78	97	41	0	0	4	142
Pyle Elementary	555	113	0	49	15	0	40	104
Ramona Elementary	680	132	4	84	0	1	51	140
Washington Elementary	847	124	45	43	0	31	0	119
Williams Elementary	854	119	52	29	5	1	3	90
Woodruff Elementary	688	147	0	38	20	1	19	78
Bellflower High	2,843	373	226	183	2	37	0	448
Mayfair High	3,289	302	390	201	41	3	0	635
Somerset Continuation High	284	78	64	54	5	1	0	124
Alternative Education Ctr.	24	27	0	0	26	1	0	27
Totals	13,429	1,838	1,050	953	103	89	200	2,410

At the time of writing this technology plan, ordering for 2012-2013 was not yet complete. At least 197 additional computers (187 desktops and 10 laptops) will be delivered by June 30, 2013,

reducing the number that need to be purchased over the period of the technology plan from 2,410 to **2,213**.

Teacher Computers:

Existing: All high school and middle school teachers have assigned computers for instructional use. At the elementary schools, many teachers have computers for their own use, but most are more than five years old; other teachers have access to laptop-sharing programs and share student computers located in their classrooms, labs, and library/media centers.

Need: As expectations for technology use in the classroom grow (including instructional use, online attendance, grading, and home/school communication), and as teachers become more advanced in their technology skills, all teachers will need to have access to computers dedicated to their use (by June 2015). On the online survey, many teachers requested laptop computers, particularly to facilitate use with presentation equipment.

To be acquired: Replace existing staff computers as needed; provide a dedicated, up-to-date computer to teachers in elementary schools—estimated as 435 for replacements of existing computers (as they become more than 60 months old) and 25 for new computers for elementary teachers who do not currently have their own computers. Estimate purchases at 1/3 of the total (460) each year.

Computer Labs:

Existing:

School	# of class-size labs	# of computers & operating systems	# of computers to acquire to meet needs (3/13 – 6/16)
Baxter Elementary	2	33 (Win XP); 40 (Win XP)	73
Foster Elementary	2	40 (Win XP); 25 (Win XP)	65
Intensive Lrn Center	1	40 (Win XP)	78
Jefferson Elementary	2	35 (Win 7); 25 (Win 7)	0
Las Flores Ed Center	1	21 (Win 7)	0
Lindstrom Elementary	2	40 (Win XP); 30 (Win 7)	40
Pyle Elementary	2	40 (Win 7); 38 (Win XP)	38
Ramona Elementary	3	36 (Win 7); 33 (Win XP); 35 (Win XP)	68
Washington Elementary	2	33 (Win XP); 40 (Win 7)	33
Williams Elementary	2	42 (Win 7); 34 (Win 7)	0
Woodruff Elementary	2	38 (Win 7); 38 (Win 7)	0
Bellflower HS (7 & 8)	6 shared with 9-12	See 9-12 entry	
Mayfair HS (7 & 8)	1 + 3 shared with 9-12	See 9-12 entry	
Bellflower HS (9-12)	2 + 6 shared with 7-8 4 labs available for sign-up/testing An additional Mac lab is being developed (April 2013)	40 (Win XP); 37 (Win 7); 36 (Win 7); 38 (Win XP); 25 (Win XP); 58 (Win XP); 32 (Win XP); 40 (OS 10.6)	233

School	# of class-size labs	# of computers & operating systems	# of computers to acquire to meet needs (3/13 – 6/16)
Mayfair HS (9-12)	2 + 3 shared with 7-8 2 labs available for sign-up/testing	39 (Win XP); 46 (Win XP); 37 (Win XP); 37 (Win XP); 37 (Win XP); 35 (OS 10.6)	268
Somerset CHS	3	25 (Win XP); 16 (Win XP); 25 (Win XP)	66
Alt. Ed. Center	0 (pods in each room)	----	0
			962

Bellflower Alternative Education Center, which has smaller classes, has pods of 6-12 computers in each of its three classrooms, rather than a separate lab.

Microsoft will cease security update support of Windows XP as of April 2014. Smarter Balanced online assessments will only be supported for XP through the first year of implementation (2014-2015).

Need: Class-size computer labs at each school, with possibilities including mobile wireless labs and portable computing devices, as follows: at least 2 per elementary school, 2 for use of grades 7-8 at high schools, 4 for use of grades 9-12 at high schools, and 2 at Somerset High School. At each comprehensive high school, at least 3 labs that are available for sign-up and online assessments.

Seven District schools are taking part in Smarter Balanced online assessment piloting in spring 2013; this will help the District to determine what it needs to acquire in order to support online testing.

To be acquired: Acquire an additional lab for Mayfair HS by June 2014; as there is no free classroom space, looking at mobile carts (iPads with keyboards, Chromebooks, etc.) with wireless access points.

Acquire an additional lab for Intensive Learning Center, by June 2015.

Refresh (replace all computers in) all XP labs, as many of these computers are already over 60 months old. Use of older computers as thin client devices may extend useful life of the machines by 2 or 3 years, while newer devices are being purchased. Replace all computers in OS 10.6 labs as they become outdated for their instructional purpose (by June 2016).

Total computers (including netbooks and tablets) to be acquired for labs, March 2013 – June 2016: 962.

iPads/Tablets/Other handheld devices:

Existing: 35 iPads used for administration and student usage development purposes. Currently, students are not allowed to use their own devices at school.

Need: The District's long term goal is for each student to have immediate access to a computing device for educational purposes. In order to make this possible, robust wireless access will be required at all sites.

To be acquired: The District is considering the use of tablets or laptops for student use—for checkout, on carts, or a 1:1 program (including a possible Bring Your Own Device program). Pilots are being considered for the 2013-14 school year. Acquisition and rollout timing will be linked to rollout of wireless networking at each site.

Thin client technologies: The District is investigating the use of thin client technologies as a computing alternative, conducting a small trial at the District Office in spring 2013. It is anticipated that thin client technology will increasingly be used for instructional purposes, especially in computer labs. Conversion of older computers in labs to use as thin client devices would allow revitalizing the labs for two or three years, until the computers can be replaced with inexpensive thin client nodes. A prerequisite to extensive use of thin client technology is an infrastructure upgrade to the District Data Center at the Alondra Annex, including additional space, cooling/air conditioning, and power.

Presentation Technology (LCD projectors, document cameras):

Existing: The following chart shows presentation technology currently available in classrooms at each school site as of a winter 2012-13 online teacher survey. Xs indicate schools where most (but often not all) teachers and classrooms have the indicated equipment. On the online teacher survey, 56% of respondents reported having LCD projectors in their rooms; 47% reported having document cameras. Teachers who do not have LCD projectors in their classrooms have access to presentation equipment either through shared computer carts with LCD projectors or connections to installed CATV systems in classrooms.

School	# of instruct. areas (2012 CBEDS)	LCD Projector	Add. LCD needed to make 1:1 (estimate)	Docu-ment Camera	Add. Doc Cameras needed to make 1:1 (estimate)	Light-speed audio system
Baxter Elem	20	X	0	X	5	X
Foster Elem	30	--	30	--	30	--
Intensive Lrn Cntr	25	X (many)	5	some	10	--
Jefferson Elem	28	--	28	--	28	--
Las Flores Ed Center	2	X	0	X	0	--
Lindstrom Elem	33	--	33	--	33	--
Pyle Elem	24	X	10	X	3	X
Ramona Elem	27	--	27	--	27	X
Washington Elem	36	X	10	X	10	X
Williams Elem	33	some	20	some	20	X (many)
Woodruff Elem	30	X	2	X	2	X
Bellflower HS	130	X	15	X	30	--
Mayfair HS	135	X (half)	65	some	100	--
Somerset Cont HS	19	X (half)	10	some	12	--
Bellflower Alt. Ed.	3	X	0	X (most)	1	--
Totals	575		255		311	

Need: In order for teachers and students to access learning resources, including digital resources that are part of the latest textbook adoptions and CCCS supplemental materials, and to make

digital presentations, each classroom, lab, and library needs to have a projection system, including a projector and input devices such as document cameras and Mobis. Document cameras are also needed for scanning multiple choice answer sheets using GradeCam online. By June 2016, each instructional area will have an LCD projector and a document camera.

To be acquired: By June 2016, purchase an additional 255 LCD projectors and 311 document cameras (estimates) so that all classrooms have presentation equipment (purchase 1/3 of total each year). In addition, purchase 65 LCD projectors and 50 document cameras each year as replacements. Of these acquisitions, 42 LCD projectors and 17 document cameras are being provided through late 2012-13 orders, to be delivered by June 30, 2013.

Printers:

Existing: The District highly recommends the use of laser printers over ink jet printers to minimize the long-term cost of ink replacement and maintenance. All instructional areas have access to printing.

Need: One “lower-end” laser printer per classroom; one “high-end” laser printer per lab. (A high-end printer is comparable to a Hewlett Packard 4000 series printer. A lower-end printer is comparable to a Hewlett Packard 2000 series printer.)

To be acquired: Replace approximately 6 high-end printers and 90 classroom printers each year.

Videoconferencing/Video Streaming:

Existing: none

Need: If funding becomes available, the District would like to explore videoconferencing capability to support distance learning (e.g. access for homebound students, virtual field trips, access to specialized classes and master teachers shared between schools and other districts) and virtual meetings.

To be acquired: End user equipment (e.g. microphones, cameras, speakers, large flatscreen or video projector for group use); network appliances (centralized at Alondra Annex with controllers at each site) for selected sites if funding becomes available (awaiting E-Rate support FY 2012 and 2013 plus acquisition of additional funding).

Assistive technology hardware will be acquired (through purchase or loan) as required.

Other peripherals: Sites will acquire other peripherals as determined by site needs, such as digital video cameras, digital microscopes, probes, CTE equipment, and/or the following:

Lightspeed Audio Systems: Includes a wireless microphone teachers wear around their necks and speakers around the room to provide sound amplification. Most classrooms at six elementary schools have Lightspeed systems.

Whiteboard Technology: Pilots are under way in several settings. Woodruff is considering purchasing MimioTeach/wireless pen tablet systems that turn ordinary whiteboards into interactive whiteboards.

Student classroom response systems: Several teachers have piloted these, and two schools are purchasing sets in spring 2013.

Policies:

The Bellflower Unified School District has set purchasing standards for computers, printers and networking equipment. Standards are also being recommended for projectors and other peripherals. Teachers and stakeholders have also expressed a desire for the District to adopt purchasing standards for interactive whiteboards and electronic student response systems. The purchasing standards and recommendations are updated periodically to align with emerging and changing technologies. The Information Technology (IT) Department acts as a resource for purchasing advice for all school sites.

The District will establish formal guidelines for the acquisition of technology and replacements for existing aging equipment, including a five-year refresh/replacement cycle for computers. Beginning with the 2013-14 school year, the IT Department will be responsible for maintaining minimum core computer needs at all sites (e.g. core labs for testing, appropriate student: computer ratios aiming at 1:1), rather than relying on sites to make all funding decisions.

The District will also develop a more accurate inventory system for computers and other equipment, with annual checks.

It is District policy that the IT Department evaluates all proposed computer donations in order to determine that units are useful and cost effective. Any school site or department receiving donated equipment must purchase the appropriate software licenses. Any existing software must be removed and only District owned software will be installed.

Electronic Learning Resources/Administrative Software:

Existing: The District currently has software purchasing standards for desktop operating systems, productivity suite, email, anti-virus protection, and library systems. These standards are updated periodically to keep pace with emerging technologies. Currently, there are no required District standards for instructional software programs, however the Information Technology Department and the District Technology Team act as resources to all schools for information on the quality and alignment of software to standards. In order to research and select appropriate learning tools, the District uses the California Learning Resource Network (CLRN) and the California Technology Assistance Program (CTAP). The District also finds teacher review of different software programs to be essential to determining recommendations for other teachers and schools within the District.

The District already owns or uses most of the resources needed to support the activities of the Curriculum and Professional Development Components. A wide variety of electronic resources are available on each site as determined by student needs. However, use of those resources differs from site to site and is left to the autonomy of the school sites primarily because responsibility for purchasing has shifted to the school sites as a result of budget limitations. These resources are shown in regular typeface in the list, below. See Section 3b for additional detail.

Need: The activities of the Curriculum and Professional Development Components of this Technology Plan require the following electronic learning resources and administrative software if they are to be completely implemented.

- Operating systems: Windows 7 or MAC OS 10.x are purchasing standards (February 2013)

- Productivity software: Microsoft Office 2010 (standard 2013)
- Email: Google Apps (standard 2013)
- Technology resources accompanying adopted text series (such as e-textbooks, audio, tutorials, exam-builders, lesson planners and web resources); **new adoptions and/or supplemental materials to address new Common Core State Standards**
- Software for diagnosis, assessment, individualized instruction, differentiation, reinforcement and/or intervention in English language arts and mathematics (such as Accelerated Reader, STAR Reading, READ 180, Waterford, Read Naturally, Starfall, SuccessMaker, Accelerated Math, STAR Math, Math Facts, Rosetta Stone, ExamView Pro); **other programs to be identified during Plan implementation**
- NetSmartz Workshop online resources (as basis of District’s curriculum for instruction in the safe use of technology)
- Programs for credit recovery, adult re-entry (toward high school graduation), college preparation, and accelerated/advanced education such as SAT and Advanced Placement prep software and distance learning: **videostreaming/videoconferencing (under consideration)**, online courses from institutions of higher education, and courseware (e.g. GradPoint, NovaNET, OdysseyWare); **Career Cruising; other resources to be identified during Plan implementation.**
- Subject-specific software and online resources (such as Type to Learn, Photoshop, Adobe Creative Suite, GarageBand, Accounting software; **handheld device applications to be identified during Plan implementation**)]
- Special software as needed by IEP students
- Administrative software: Aeries/Aeries.net (including gradebook and parent portal), Data Director, the Synced Solution for CCSS instructional planning and assessment, GradeCam, Follett Spectrum library automation, SEIS for IEP preparation and tracking, Internet content filtering (Lightspeed, **switching to iboss**), anti-virus (Sophos); **new data management system (STARS); centralized District-wide library/textbook automation system (Follett Destiny); linked District/offsite databases via SIF (Schools Interoperability Framework) or other method; SchoolDude work order system**
- District website, teacher webpages in District domain, parent portal access to Aeries Browser Interface/Aeries.net (high schools), web email portal for communication with teachers; **expansion of parent portal access to elementary; increased school- and/or teacher-developed webpages; enhanced District website; investigate use of external web-hosting service to ease website development and maintenance**
- Blackboard Connect for home-school communication

To be Acquired: The items in **boldface** above (not yet owned or used by the District) will be piloted and/or acquired during the course of this Plan. The District will maintain adequate versions of productivity software on all computers, will purchase additional licenses of existing curriculum-oriented software as required (e.g. SuccessMaker), and will keep up maintenance and service agreements for student information and assessment data management systems.

The District is aiming to make records/data management more efficient through encouraging keeping information up-to-date and data “clean” and through linking various District and off-site databases and systems. As of February 2013, Aeries and Active Directory are linked for unified data entry and searching using a SIF/Zone Integration Server setup; however, results have not been completely satisfactory, and the District is considering switching to a different linking system. Additional data system links such as to CALPADS will be added as needed. Acquiring and using a District-wide library and textbook automation system will also further the goal of making records management more efficient.

Policies:

Without hindering the autonomy of schools to select software programs to meet their needs, the District needs to monitor software purchasing to ensure that programs are safe for the network, aligned to standards, and licensed properly. The Interim Director of Technology, the District Technology Team, and other technology and instructional staff will make software recommendations, to be available over the District intranet. The Director of Curriculum and Instruction will also make recommendations for standardized software. The current Microsoft license prohibits the loading of software to a unit from unauthorized users. Currently, in order to install a program, a District technician must perform the process. The District needs to develop long-term procedures to manage new software installations that are efficient for schools while maintaining proper network safety, standards alignment, and licensing.

Internet Access / Telecommunications and Networking Infrastructure:

The District will maintain an up-to-date telecommunications and data network to support increased student academic achievement, data-driven decision-making, and home/school communication. All classrooms are connected to the District network. All sites have up-to-date phone systems. The Interim Director of Technology will conduct regular/annual assessments of the District’s network and infrastructure to determine optimization and potential needs for upgrades and repairs.

Data Network:

Existing: All district sites are connected via a leased fiber optic wide area network to the Alondra Annex (Data Center). All classrooms are connected to the Internet. Additional details are provided in the chart titled Description of Data Network, under To Do/To Be Acquired, below.

Locations on the District Network	
Baxter Elementary	Williams Elementary
Foster Elementary	Woodruff Elementary
Intensive Learning Center	Bellflower High School
Jefferson Elementary	Mayfair High School
Las Flores Educational Center	Somerset Continuation High School
Lindstrom Elementary	Bellflower Alternative Education Center
Pyle Elementary	BUSD Administration Offices
Ramona Elementary	Technology Center/Alondra Annex
Washington Elementary	Maintenance and Operations

Need: Maintenance of reliable, fast wide area and local area networks for data and voice communication, with safe Internet service and sufficient servers (for network management, file storage, and applications).

To Do/To Be Acquired:

Description of Data Network		
	Existing (February 2013)	To Be Acquired: (Upgrades Planned)
Type and speed of connection of district hub to Internet provider	100 Mbps Ethernet	Upgrade to 1Gbps to support growing use of cloud applications and media-rich Internet content and services (2013-14).
Internet Service Providers	Los Angeles County Office of Education	
Firewall	Cisco ASA 5520	Replace with Cisco 5580-20 or equivalent (2013) to handle planned increased bandwidth (1 Gbps) of the Internet connection.
Network Hub	Alondra Annex / Technology Center	
Type and speed of connection(s) of schools to network hub	1 Gbps fiber optics	Upgrade to 10 Gbps connecting all district sites, starting in 2013 with estimated completion date of 2017. Adequacy of speed of network will be assessed and upgraded as necessary.
Type and speed of backbone within sites; description of LAN; speed of connection at the desktop	Site MDFs in physically safe environment: rack mounted Cisco switches, UPS, patch panels for copper and fiber; typical IDF is similar. LAN backbone bandwidth is 1 1Gbps with a mixture of 100 Mbps to 1 Gbps to the desktop.	Assess network hardware (switches, routers, UPS, cabinets, etc.) and wiring/cabling annually & make purchases as necessary. All hard-wired LANs to be minimum 1 Gbps Ethernet to the desktop with CAT 6 horizontal wiring and fiber backbones using 10 Gbps or better switching by the year 2017; to include VLAN technologies and Power over Ethernet (PoE) in support of IP telephony to be completed in the year 2014. To support 10 Gbps, obtain upgraded MDF and IDF PoE switches for schools and hub, upgraded UPS for schools and hub to handle the increasing PoE loads from phones and wireless access points and to counteract the natural attrition of electronic equipment, cabinets and cabling for selected sites as needed.

Description of Data Network		
	Existing (February 2013)	To Be Acquired: (Upgrades Planned)
Number of network drops per room and Internet connection	All classrooms, libraries, and labs are connected to the Internet. Classrooms have 2-5 network drops; since 2005 all classrooms have 5 drops installed at construction. Computer labs have one drop per workstation and printer. New libraries are designed for network access at a variety of centers and workstations.	As needed, including as a result of modernization or construction, additions or upgrades such as data drops, fiber optic connections to MDF rooms, etc.
Description of wireless equipment, access, coverage	None	Acquire and install industry standard managed wireless networking at all sites. Starting in the year 2013, through 2017.
Audio/visual distribution and video conferencing network equipment	-----	Acquire appliance-based distance learning/videoconferencing system at all sites. Leased SIP trunking to Alondra Annex. As funding becomes available (pending E-Rate support).
Servers (both central and at sites) & services they perform, both eligible for E-Rate and not eligible	Network operating systems currently include Mac OSX, LINUX, and MS 2008, with MS 2008 becoming standard. Active Directory. Existing servers reside at all sites and are used for DNS, DHCP, print services, web hosting, application hosting, VMWare, and document storage.	District plans to centralize all servers by the year 2015 by acquiring a Storage Area Network with enough physical hosts and storage to virtualize all servers and provide enough storage for future video storage, all student and staff documents, and future thin client technologies.

Phone Systems:

Existing: The District has centralized Cisco IP Telephony (Call Manager/Unity voice mail), which is two-thirds implemented as of February 2013. All sites currently have some POTS lines (i.e. for fire and security alarms, 911, or fax), but the District is striving to eliminate the need for POTS lines. Voicemail is available to teachers at the high schools. Selected staff use District cellular phone services (with restricted calling access to maintain oversight and control of usage).

Need: Centralized, District-wide VoIP telephone system.

To be acquired: The District will complete full implementation of IP telephony by 2014. Newer switch gear and VoIP handsets are needed at sites not yet converted to the new Cisco Call Manager. Handsets will be purchased; the switch gear is expected to come from displaced equipment from sites getting upgrades.

Adequacy, efficiency, and cost-effectiveness of the phone systems will be assessed annually and hardware and software updates obtained as needed. Adequate trunking will be maintained.

Other Internet Access:

The District utilizes 3G and 4G data plans for the existing 35 iPads, which are used for administration and student usage development purposes.

Physical Plant:

All schools have sufficient power for their current use. However, as additional systems are installed, electrical capacity could become a problem. Additionally, there are several classrooms with limited electrical outlets, causing limitations on the physical placement of computers within these classrooms. Upgrades are a part of school modernization plans.

As of July 1, 2013, the Bellflower Alternative Education Center, previously located in the District Office complex, will occupy the District's former Cosmetology school site, next to Williams Elementary School.

In order to support added use of the network and thin client technologies, the District Data Center needs to be upgraded with additional space, cooling/air conditioning, and power. Plans are under way, with much of the work expected to be completed by June 2014.

As a result of Measure BB, a new \$79 million general obligation bond issue approved by District voters in November 2012, infrastructure improvements will occur throughout the district, potentially including technology upgrades and expansion of Career Technical Education programs.

Physical space for new technology placements within classrooms and computer labs will become a challenge as the computer inventory of the District grows. The District recommends that schools utilize space-saving furniture, computer carts, and wireless technology to conserve space.

Technical Support:

Existing: Technical support at Bellflower Unified School District comes from multiple sources including manufacturer warranties, contracted maintenance (including E-Rate eligible Basic Maintenance—maintenance, troubleshooting, and repair—of network equipment), district technicians, and site level technicians.

Technical support at the District level is performed by staff in the Information Technology Department. The Interim Director of Technology manages technology support staff; uses technical expertise to assist staff and administration in developing solutions to hardware, software, network, and user-related problems; monitors CIPA compliance, the District's Acceptable Use Policy, information security and various grant requirements; and makes recommendations concerning the development, acquisition, and utilization of software, hardware, networks and emerging technologies.

Three full-time Computer Repair Technicians perform the majority of classroom desktop support including: assisting students and staff in the use of instructional technology, troubleshooting problems, repairing hardware, software and network components, installing and configuring desktop and networking equipment, communicating with vendors to research pricing,

maintaining records and produces reports relating to work orders and repair, and tracking, inspecting and initiating warranty repairs. The majority (70%) of the Technicians' time is spent supporting classroom desktops. Their remaining time is split among administrative desktop support (15%), network support (10%), and record keeping (5%).

Additional support from the District level includes an Educational Technology Data Technician who manages the student information and data management systems.

School sites also employ staff to manage technical support at the site level. Six schools have full-time or part-time classified Site Technology Technicians who assist students and staff on the use of technology, support lab use, perform basic troubleshooting on computer hardware and software, initiate work orders, perform general repairs and maintenance on computers and video equipment, and coordinate inventory records. These technicians spend 60% of their time performing hands-on assistance in the use and teaching of technology, 25% on desktop support, 10% on administrative desktop support, and 5% on record keeping.

All elementary schools utilize Technology Facilitators, teachers who receive stipends to provide 2.5 hours per week of non-instructional time for the support of technology. Facilitators provide leadership and support for instructional technology use and lead staff development for the effective use of software. Activities include planning, coordination, evaluation, basic troubleshooting, and assistance with prioritization of repair. The Facilitator works closely with the school principal and staff to meet school technology needs. Because of the very local nature of the needs that these individuals are required to meet, it is difficult to generalize about their activities on an hourly basis. However, one Technology Facilitator at a school that also employs a Site Technology Technician spends 20% of the 2.5 hours per week performing classroom desktop support. Technology Facilitators at schools without a Site Technology Technician typically spend 40% of their 2.5 hours per week performing classroom desktop support.

Computer-to-Technical Support Staff Person Ratio: The following chart identifies what percentage of time each technical support person is spending performing support for staff and student computers. Several staff members perform multiple functions, hence a percentage of their time was used to calculate the ratio in full-time equivalent (FTE) personnel units.

Position	% of time used for computer support	FTE units in staff and student computer support
Interim Director of Technology	10%	.100 FTE
Computer Repair Technicians	85% (3 full-time)	2.550 FTE
Site Technology Technicians	35% (4 full-time, 2 part-time)	1.575 FTE
Site Technology Facilitators	7 at 40% of 2.5 hours; 4 at 20% of 2.5 hours)	.230 FTE
TOTAL		4.455 FTE

Based on this 4.455 FTE for staff and student computer support and a count of 3,221 District computers (Active Directory records, three months ending mid-March 2013), the computer-to-technical support staff person ratio is 723:1.

Response Time: The District currently schedules Computer Repair Technicians to visit school sites 3.5 days per month, which is approximately one full day per week. Typically, teachers will have computers in their classrooms repaired on the scheduled day that the Technician is on their school site. Emergency technical problems are handled on a case-by-case basis where response

time can be immediate if necessary. Typically, the response time is directly related to the prioritization of the technical problem.

Need: Based on the curriculum and professional development components of this plan, the District expects teachers to use technology for professional productivity and classroom instruction; administrators to use technology for school management, research and analysis; and students to use technology for communication, research and personal productivity. In order to manage these expectations, the technology that exists must be reliable. Without timely technical support, teachers, administrators and students will be hesitant to depend on technology and costly investments in computers and infrastructure will be underutilized. The ratio of technical staff to computers should be approximately 535:1.

To do: The current technical support resources in the District are not adequate to meet the needs of teachers, administrators and students. This is due to the growing number of computers to service and an increase in use by students and teachers, as well as greater complexity in the management of classroom desktops due to licensing limitations.

The District would like to increase high level Computer Repair Technician support to two (2) full days per week/per school in order to meet the growing demand for timely support. An additional equivalent of three (3) Computer Repair Technicians will be needed to meet this objective. With this recommendation, inclusive of the recommended computers addressed in the hardware section above, the ratio goal would be 535:1. If the budget allows, the District expects to add two FTE Computer Repair Technicians by summer 2013.

The escalation process for technical emergencies – technical problems that cannot be scheduled weekly – needs to be streamlined. The District will develop a process that quickly identifies and prioritizes technical problems to facilitate a swift response (from end user to principal to IT Department staff cell phone).

Additionally, the District will improve the current tracking system for technical problems in order to better monitor troubleshooting activities by acquiring the SchoolDude ticketing system.

5c. Benchmarks and timeline for obtaining the needed resources.

Hardware:

The following equipment-purchase objectives or recommendations are dependent on the acquisition of additional funding, including grants and state one-time moneys.

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
5.1	By June 2016, the ratio of students to computers less than 60 months old at each school will be 5:1 elementary, 4.75:1 at BHS and MHS, 2:1 at Somerset, 1:1 at BAE. There will be at least 2 computers less than 60 months old in each elementary classroom, 1 in each secondary classroom (with pods of 6-12 at BAE).	buy 738 computers or other computing devices (netbooks, tablets, thin client)	buy 738 computers or other computing devices (netbooks, tablets, thin client)	buy 737 computers or other computing devices (netbooks, tablets, thin client)
5.2	By June 2015, all teachers will have a computer dedicated to their use.	K-2, 7-12 Buy 154	K-12 Buy 153	K-12 Buy 153

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
		computers (inc. in 5.1 totals)	computers (inc. in 5.1 totals)	computers (inc. in 5.1 totals)
5.3	By June 2016, there will be up-to-date class-size computer labs (including mobile labs, mobile devices) at schools: at least 2 per elementary, 2 for use of grades 7 & 8 at high schools, 4 for use of grades 9 & 12 at high schools, and 2 at Somerset. At least 3 of the labs will available for sign-up and assessments at each comprehensive high school.	Add a lab at Mayfair HS Refresh older labs Purchases included in 5.1 total	Add a lab at Intensive Learning Center Refresh older labs Purchases included in 5.1 total	Refresh older labs Purchases included in 5.1 total
5.4	By June 2016, each instructional area will have an LCD projector.	Buy 136 LCD projectors	Buy 136 LCD projectors	Buy 136 LCD projectors
5.5	By June 2016, each instructional area will have a document camera.	Buy 148 document cameras	Buy 148 document cameras	Buy 148 document cameras
5.6	In each year, all classrooms and labs will have access to printers.	Buy 6 high end and 90 classroom laser printers, as replacements	Buy 6 high end and 90 classroom laser printers, as replacements	Buy 6 high end and 90 classroom laser printers, as replacements
5.7	Schools will purchase other innovative hardware/peripherals (interactive whiteboard systems, Mobis, student response systems, audio systems, video conferencing equipment, digital microscopes, probes, etc.) for expanded use to enhance lesson delivery in the classroom and student technology use in assignments.	Purchases TBD	Purchases TBD	Purchases TBD
5.8	All students will have access to assistive devices as per their IEPs or 504 Plans.	100%	100%	100%

Action Plan:

	Implementation Plan, Data to be Collected, and/or Evaluation Instruments	Timeline or Schedule for Evaluation	Program Monitoring, Evaluation, and Modification Process
a	The District will develop and adopt formal guidelines for the purchase of technology, including replacement of aging equipment. IT Department will be responsible for centralized purchasing to meet core computer needs for all	Begin 2013-14 school year	With approval of Superintendent, IT Department will oversee.

Implementation Plan, Data to be Collected, and/or Evaluation Instruments		Timeline or Schedule for Evaluation	Program Monitoring, Evaluation, and Modification Process
	sites.		
b	District Office and schools will work with the IT and Instructional Personnel and Programs Departments to ensure that all technology purchases align with the District Technology Plan goals and benchmarks.	July – June, each year	Process overseen by the IT and Instructional Personnel and Programs Departments
c	District and sites will determine priorities for deployment of new computers and other equipment.	Oct – Dec, each year	Teacher and department requests submitted to site/department administrators for approval and submission to IT Department.
d	Purchased computers and other equipment will be deployed.	Jan – June, each year	Site Administrators establish plan with site staff
e	A physical inventory survey will be filled out for/by each school accurately reflecting the number, age, and locations of computers and other major technology items.	Summer 2013, IT Dept will make a list of all computers w/ model numbers, by room; annual inventory updates thereafter	IT Department staff and designated Site Staff will monitor at school sites.
f	The SBAC Technology Readiness Survey will be filled out for/by each school to determine site needs.	Spring, each year	IT Department oversees process and collection of data.

Electronic Learning Resources/Administrative Software:

Please note that the following software/service purchase objectives or recommendations may be dependent on the acquisition of additional funding, including grants and state one-time moneys.

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
5.9	By June of each year, District/sites will purchase upgrades, subscriptions, and additional licenses for existing software and services as needed.	100%	100%	100%
5.10	Teachers and students will have access to and use technology resources accompanying adopted text series and/or supplemental materials as Common Core State Standards are implemented.	As adopted	As adopted	As adopted

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
5.11	District and sites will investigate, pilot, and purchase (or use free of charge) other programs and resources to improve student achievement and productivity; these will align with the District Technology Plan.	Purchases TBD	Purchases TBD	Purchases TBD
5.12	The District will obtain new online program Career Cruising.	Purchase/ license and implement	Continue implementation	Continue implementation
5.13	The District will acquire a new data management system (STARS).	Acquire, run in parallel with Data Director	Use new system	Use new system
5.14	The District will acquire and implement at all sites Follett Destiny Library Manager and Textbook Manager.	Acquire by 7/1/13; ramp up implementation through the year	Full implementation	Full implementation
5.15	The District will investigate the use of an external web-hosting service.	Investigate, implement if desired	Implement if desired	Implement if desired
5.16	By July 2016, District will install and operate sufficient Schools Interoperability Framework (SIF) or similar systems to link all operational databases utilizing Structured Query Language (SQL) for complete single entry/searching interoperability.	Provide all enrolled student users, including new and mid-year enrollees, with individual network log-ins through Microsoft Active Directory	Use SIF or other method to provide update automation between Aeries and CALPADS	Use utilize SIF or other method to link all operational databases

Action Plan:

	Implementation Plan, Data to be Collected, and/or Evaluation Instruments	Timeline or Schedule for Evaluation	Program Monitoring, Evaluation, and Modification Process
a	At the end of each school year, examine current software and online services for needed upgrades or additional licenses. Make purchases as needed.	May – June, each year	Continuous evaluation process monitored by Instructional Personnel and Programs Dept.; Interim Director of Technology supervises licensing.
b	The Interim Director of Technology, Technology staff, the District Technology Team, and the Director of Curriculum and Instruction will provide District software recommendations through the District	Ongoing	Continuous evaluation process monitored by Interim Director of Technology.

Implementation Plan, Data to be Collected, and/or Evaluation Instruments		Timeline or Schedule for Evaluation	Program Monitoring, Evaluation, and Modification Process
	intranet.		
c	IT Department with Technology staff will develop standard procedures for installation of new software programs.	2013-2014	Curricular software needs conveyed to IT Department for compatibility with existing infrastructure.
d	Provide support for SIF for Aeries and Active Directory; consider alternate method for linking.	2013-2014	Interim Director of Technology will implement server and software, support its use, and evaluate system performance.
e	Install, implement, and support SIF or similar for Aeries and CALPADS.	By September 2015	Interim Director of Technology will install and implement server and software and support its use.
f	Acquire and/or develop SIF/similar for Aeries and additional local or remote operational databases utilizing using SQL.	By January 2016	Interim Director of Technology will oversee cost analysis and feasibility study for expanded SIF – ZIS or other linking system utilization and issue final specifications for server and software acquisition.
g	Install, implement, and support SIF/similar for Aeries and additional local or remote operational databases utilizing SQL.	By July 2016	Interim Director of Technology will install and implement server and software and support its use.

Telecommunications and Networking Infrastructure:

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
5.17	The District will upgrade to 1 Gbps Internet Access (from Service Provider).	Upgrade	Complete	Complete
5.18	The District will implement and support leased network of 10 gigabit fiber-optic circuits for intra-District data and voice communications.	Begin at selected sites	Add sites	Add sites (complete by 2017)
5.19	The District will annually assess network hardware (switches, routers, UPS, firewall, etc.) and cabling/wiring and make purchases for upgrades and additions as needed. Replace networking equipment as necessary to provide Power over Ethernet, VLAN technologies, 10Gbps WAN, and 1 Gbps speeds to the desktop. Acquire for any new construction.	Begin at selected sites	Add sites. Complete PoE switch/ VLAN technologies	Add sites (complete by 2017)
5.20	The District will install industry standard wireless networking at all sites.	Begin at selected sites	Add sites	Add sites (complete by 2017)
5.21	The District will centralize all server functions by acquiring a Storage Area Network.	Install and Migrate	Migrate	Migrate

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
5.22	The District will acquire interoperability/SIF server/hardware/software as needed.	In place	Maintain and Upgrade	Maintain and Upgrade
5.23	The District will explore acquisition of an appliance-based distance learning/ videoconferencing system at all sites.	Explore and Evaluate	Explore and Evaluate	Explore and Evaluate
5.24	District will annually assess the need to upgrade the existing phone system and acquire additional equipment for any new construction.	Complete implementation of IP telephony	Assess annually	Assess annually

Physical Plant:

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
5.25	The District will upgrade physical and electrical infrastructure as necessary to accommodate technology growth according to school modernization plans and plans for development/expansion of educational programs (e.g. CTE programs).	Ongoing E-Rate wiring upgrades and expansions	Ongoing E-Rate wiring upgrades and expansions	Ongoing E-Rate wiring upgrades and expansions
5.26	The District will upgrade the District Data Center, including power and cooling.	Complete major upgrades	Ongoing E-Rate hardware upgrades	Ongoing E-Rate hardware upgrades

Technical Support:

Please note that the following technical support objectives or recommendation may be dependent on the acquisition of additional funding.

	OBJECTIVES & BENCHMARKS:	2014	2015	2016
5.27	The District will decrease the ratio of computers to technical support staff to 535:1 by June 2016.	Hire 2 FTE Computer Repair Technicians	Maintain 2 or hire 1 additional	535:1 Maintain 3 or hire 1 additional
5.28	The District will implement an escalation process for emergency technical problems.	Implement	Continue	Continue
5.29	The District will identify and implement an improved tracking system for technical support calls to monitor troubleshooting activity (SchoolDude).	Complete implementation of ticketing system	Continue use	Continue use

5d. Monitoring Process

Monitoring the continuous improvement of the District's data infrastructure is the primary job responsibility of the Interim Director of Technology. It is the Interim Director of Technology's

role to oversee the administrative and budgetary details of all of the District’s technology development efforts. In this capacity he collaborates with his staff, the principals, Technology Facilitators, teachers and staff at each site, and, on personnel and planning matters, with the Associate Superintendent, his direct supervisor.

Site principals have responsibility for monitoring and assessing the technology needs of the classrooms at their sites and for working with teachers, other stakeholders, and the Information Technology Department to manage the fulfillment of those needs. All sites organize Technology Committees composed of teachers, parents and students to assist the principal in these efforts.

The Interim Director of Technology has responsibility for the design and installation of network and infrastructure improvements. He collaborates with the Director of Maintenance and Operations to set hardware and peripherals standards and monitor the District’s hardware replacement program.

The Interim Director of Technology meets monthly with the Superintendent and the District’s Administrative Management Team to report on progress on the District’s technology plans and priorities. Progress is also reviewed annually by the Associate Superintendent in connection with the Interim Director of Technology’s annual employment evaluation.

Monitoring Activity	Person Responsible	Schedule
Purchase of classroom, lab, and library equipment carried out; inventory kept up to date; equipment maintained.	Site Administrators Site Technology Committees Interim Director of Technology Technology staff	Purchase, inventory, and maintain throughout the year
Software/online services investigated, piloted, decided upon, purchased, and implemented.	Site Administrators Director of Curriculum and Instruction Director, Assessment and Instructional Support Services Interim Director of Technology	Purchase throughout the year; ordering by April of each year
Network and telecommunications upgrades planned and carried out; network and telecommunications maintained.	Interim Director of Technology; Technology staff	Ongoing
Student Information and Data Management Systems upgrades and/or acquisitions and transitions planned and carried out.	Director, Assessment and Instructional Support Services	Ongoing
Technical support performance monitored for consistent and timely response; escalation process and tracking system for support calls identified and improved; additional support	Interim Director of Technology Associate Superintendent	Ongoing

Monitoring Activity	Person Responsible	Schedule
staff hired as necessary.	Site Administrators	
Physical and electrical infrastructure upgraded as necessary to accommodate technology growth according to modernization plans	Interim Director of Technology Director of Maintenance and Operations	Ongoing

6. FUNDING AND BUDGET COMPONENT

6a. Established and potential funding sources.

All technology objectives will be obtained through current and potential funding resources at Bellflower Unified School District and sites. These include, but are not limited to:

District Level	Site Level
<ul style="list-style-type: none"> • General Fund • Categorical: <ul style="list-style-type: none"> Title I Title III (LEP) State Block Grant • Special Education • Facilities Budget: <ul style="list-style-type: none"> State construction funds State modernization funds Local G.O. bond (Measure BB) Developer fees Community Facilities Districts Redevelopment Revenue • Education Foundation • ELAP (English Language Acquisition Program) • Grants (state/federal & other) • ROP • Economic Impact Aid 	<ul style="list-style-type: none"> • All categorical funds • Community partnerships • Local fund-raising efforts • PTA/PTSA • Donations • Small site-level grants • IMFRP (Instructional Materials Fund Realignment Program) • TIIG (Targeted Improvement Instruction Grant) • IMELL (Instructional Materials for ELL) • Economic Impact Aid • Perkins (high school only)

Options for reducing costs include maintaining standards for hardware and software, hardware and software purchasing agreements, state contracts/master purchasing agreements, E-Rate and California Teleconnect Fund discounts, and coordination of network and telecommunications upgrades with the E-Rate cycle. The District will continue to pursue other funding sources.

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

PLEASE NOTE: ALL OF THE FIGURES ARE ESTIMATES OF WHAT REACHING DISTRICT GOALS WOULD COST AND WILL ONLY BE SPENT ONCE FUNDING BECOMES AVAILABLE.

	2013-2014	2014-2015	2015-2016	Potential Funding/ Discount Sources
New Construction / Modernization / Retrofitting—Total Construction Costs				
Any/all school sites	TBD	TBD	TBD	GO Bond

	2013-2014	2014-2015	2015-2016	Potential Funding/ Discount Sources
Data Center upgrades	250,000	10,000	10,000	General Fund
Computer Hardware and Peripherals				
Student and teacher computers / computing devices*	590,400	590,400	589,600	Categorical funds (Title I, Title III), grants, General Fund, Block Grant, vouchers, ROP (as appropriate)
Printers, laser, high-end (@ \$800)	4,800	4,800	4,800	
Printers, laser, classroom (@ \$300)	27,000	27,000	27,000	
LCD Projectors (@ \$500)	68,000	68,000	68,000	
Document cameras (@ \$600)	88,800	88,800	88,800	
Other peripherals such as interactive whiteboard systems, Mobis, student response systems, videoconferencing equipment, Lightspeed audio systems, cameras, etc. – Site Decisions	TBD	TBD	TBD	
Adaptive technologies (hardware & software)	TBD	TBD	TBD	Special Ed/General Fund
Electronic Learning Resources & Administrative Software				
Student Information System	13,000	13,000	13,000	General Fund
Data Director / STARS	60,000	60,000	60,000	General Fund
The Synced Solution	90,000	50,000	50,000	General Fund
Blackboard Connect	20,000	20,000	20,000	General Fund, Block Grant
External web-hosting	20,000	20,000	20,000	General Fund, E-Rate
Microsoft Office licenses	5,000	5,000	5,000	General Fund
Follett Destiny	107,000	20,000	20,000	General Fund
NovaNET	60,000	60,000	60,000	General Fund
OdysseyWare	48,000	48,000	48,000	General Fund
GradPoint	40,000	40,000	40,000	General Fund
Career Cruising	4,200	4,200	4,200	General Fund
Renaissance Learning	57,500	57,500	57,500	General Fund
READ 180	29,200	29,200	29,200	General Fund
Waterford/SuccessMaker	81,100	81,100	81,100	General Fund
Other curriculum-oriented software and online resources (new purchase, additional licenses & maintenance agreements) subscriptions	10,000	TBD	TBD	General Fund
Technology resources of adopted text series and/or supplementary materials	TBD	TBD	TBD	General Fund

	2013-2014	2014-2015	2015-2016	Potential Funding/ Discount Sources
for CCSS				
Other administrative programs (such as financial or personnel management)	50,000	50,000	50,000	General Fund
Professional Development				
Trainers/tech integration support staff: stipends/extra duty	129,950	129,950	129,950	General Fund
Staff PD attendees: sub release, stipends, incentives	62,373	62,373	62,373	General Fund
Training costs (such as programs, materials, outside vendors, conferences)	62,373	62,373	62,373	General Fund
Infrastructure Costs & Upgrades (Internal Connections for Voice, Data, Video Networks)				
Network hardware (routers, switches, firewall, UPS, etc.) & wiring/cabling**	1,858,000** (10 schools & Annex, FY2012)	350,000 **(3 schools, FY 2013)	323,300 **(1 school, FY 2014)	General Fund, E-Rate
Wireless networking**	688,955 (10 schools & Annex, FY2012)	195,153 (3 schools, FY 2013)	183,351 (1 school FY2014)	General Fund, E-Rate
Videoconferencing (network appliances, servers)**	TBD	TBD	TBD	General Fund, E-Rate
Microsoft licenses**	0	60,000	60,000	General Fund; E-Rate
Servers: SIF/ZIS or similar interoperability server(s) (@ \$5000)	15,000	15,000	15,000	General Fund
Storage Area Network	150,000	15,000	15,000	General Fund
VoIP telephone handsets	30,000	5,000	5,000	General Fund
Other phone system upgrades	80,000	TBD	TBD	General Fund, E-Rate
Technical Support & Maintenance				
Technology support salaries and benefits (existing staff)	744,135	744,135	744,135	General Fund
Technology support salaries and benefits (proposed additional staff)	TBD	TBD	TBD	General Fund
SchoolDude	5,000	6,500	6,500	General Fund
Basic Maintenance of Internal Connections**	124,000	120,000	120,000	General Fund, E-Rate

	2013-2014	2014-2015	2015-2016	Potential Funding/ Discount Sources
Other contracted services	50,000	50,000	50,000	General Fund
Network Management				
Network operating system (including CALs)	103,000	0	0	General Fund
Web monitoring/filtering	23,000	23,000	23,000	General Fund
Anti-Virus	0	0	60,000	General Fund
Schools Interoperability Framework / Zone Integration Server (SIF/ZIS) agents or similar	12,575	12,575	12,575	General Fund
Telecommunications (Voice/Data/Network)				
Telecommunications/WAN Services**	397,338	147,338	92,388	General Fund, E-Rate, CTF
Internet Access**	20,700	20,700	20,700	General Fund, E-Rate
Grand Total	\$6,230,399	\$3,316,097	\$3,281,845	

* Estimates are based on \$800 per computer (average desktop cost). Purchase of less expensive netbooks, tablets, and thin client nodes would reduce the amount spent or allow more items to be purchased. If class sets of mobile devices are purchased, carts for storage, recharging, and security will need to be purchased. Laptops are somewhat more expensive than desktops.

**The amounts shown are full costs, before E-Rate discounts. E-Rate discounts are about 90% for eligible Internal Connections and 87% for Telecommunications services.

The following chart summarizes estimated yearly costs of plan implementation, taken from the charts shown above:

Year	Cost	Still To Be Determined
13-14	\$6,230,399	New construction/modernization (GO Bond); peripherals that are site-specific decisions; adaptive technologies; technology resources of adopted text series and/or supplemental materials for CCSS; videoconferencing; salaries and benefits of proposed new IT staff
14-15	\$3,316,097	Same as 13-14, plus other curriculum-related software; additional phone system upgrades
15-16	\$3,281,845	Same as 14-15

6c. Obsolete Equipment Replacement Policy

The District is recommending a 5-year lifespan for computers. It is highly recommended that Bellflower Unified School District schools plan for computer obsolescence in order to maintain student-to-computer ratios and up-to-date computer labs and continue to achieve academic objectives related to technology. Once equipment surpasses its lifetime, the cost of ownership rises quickly in technical support costs.

Within the first three to five years of life, warranties often cover the costs of repair. Beyond the first five years of life, technical support for computers will be limited to units that are not beyond economic repair. Typically, this decision is made by a District Technician based on availability of parts or extensive time to fix the problem. For example, any damage to a computer’s motherboard or serious damage to a laptop’s display panel would be considered cost prohibitive to fix. Issues such as drive replacement, however, would still be supported by the District Technicians within the lifespan of the unit. Beyond the five year lifespan of the unit, district support will be determined on a case-by-case basis.

Once equipment is considered obsolete, the Board declares the equipment surplus. The District then disposes of it in accordance with Board Policy.

The vision and objectives of this Technology Plan provide for replacement of equipment after the following life spans: computers, LCD projectors, and document cameras, five years; printers, six years.

6d. Process for monitoring technology funding, implementation costs, and new funding opportunities and for adjusting budgets as necessary.

Technology budgeting is integrated into the District general budget process in a manner consistent with the Funding and Budget component. The Interim Director of Technology is responsible for monitoring modifications of the physical plant, acquisition of equipment, and updating of the budget. The Interim Director of Technology and the Director of Assessment and Instructional Support Services work closely with school site leadership and the District Technology Team to facilitate communication.

The Director of Assessment and Instructional Support Services convenes the District Technology Team. When the need for feedback or an update of funding is determined, the Interim Director of Technology will approach the Associate Superintendent. The Associate Superintendent will then provide communication to the Superintendent’s Cabinet and, at the Superintendent’s direction, to the District Budget Committee. If a request is of a smaller nature or one that is time-critical, the Associate Superintendent will go directly to the Superintendent’s Cabinet for funding or advice.

Individual(s) Responsible	Responsibilities	Feedback Loop
Site Administrators	<ul style="list-style-type: none"> • Develop and monitor site budget and expenditures • Work with staff/Site Technology Committee to determine site technology needs and priorities • Budget to meet those needs and priorities as appropriate • Seek community partnerships • Seek donations • Seek grants 	<ul style="list-style-type: none"> • Report progress and needs as assessed to the District Technology Team • Submit recommended plan changes to the Technology Team
Interim Director of Technology	<ul style="list-style-type: none"> • Coordinate and approve all technology orders and purchases (hardware and software) • Review plan progress semi-annually 	<ul style="list-style-type: none"> • Report to Associate Superintendent, quarterly • Feedback to Technology Team on progress

Individual(s) Responsible	Responsibilities	Feedback Loop
	<p>to ensure goals are met</p> <ul style="list-style-type: none"> • Examine District budget and expenditure priorities annually • Develop minimum standards for donated equipment, update annually • Seek vendor discounts, volume licensing • Attend conferences, monitor listservs, and consult with vendors and consultants on new funding opportunities 	
<p>Assistant Superintendent of Instructional Personnel and Programs</p> <p>Director of Assessment and Instructional Support Services</p> <p>Director of Curriculum and Instruction</p> <p>Director of State and Federal Programs</p>	<ul style="list-style-type: none"> • Review for categorical program compliance and for alignment to site and district plans • Clarify district and site categorical funding responsibilities, and revise annually • Examine district budget and expenditure priorities annually • Receive and read funding alerts from CDE, LACOE, School Services • Seek partnerships with community organizations • Seek partnerships with government agencies • Attend conferences, other ways of seeking funding 	<ul style="list-style-type: none"> • Feedback to principals about progress • Feedback to parents, DELAC, DAC • Report to Cabinet, Fiscal Services and other stakeholders as appropriate
<p>District Technology Team</p>	<ul style="list-style-type: none"> • Evaluate/assess technology implementation, usage, and progress toward meeting yearly goals, objectives and benchmarks 	<ul style="list-style-type: none"> • Provide annual progress report to school stakeholders
<p>Chief Business Officer</p>	<ul style="list-style-type: none"> • Clarify district and site categorical funding responsibilities, and revise annually • Examine district budget and expenditure priorities annually • Budget and expense review • Interim reporting • Receive and review alerts from CDE, CASBO, School Services 	<ul style="list-style-type: none"> • Approval sent to Purchasing • Report budget progress to Cabinet
<p>Cabinet</p>	<ul style="list-style-type: none"> • Monitor all expenditures in General Fund • Seek community partnerships 	<ul style="list-style-type: none"> • Feedback provided to Site Administrators

7. MONITORING AND EVALUATION COMPONENT

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

School technology leaders, principals, the Instructional Services Team, and the Interim Director of Technology will meet annually to discuss plan progress and evaluate technology's impact on student learning, the attainment of District curriculum goals, and classroom and school management technology use and needs. Each September, they will examine the following evaluation measures:

- California Standards Test/Smarter Balanced Assessment and California High School Exit Exam results (Goal 3d.1)
- Graduation rates (Goal 3d.1)
- District annual survey reports for teachers and site administrators, including sections on teacher and student use of technology, staff technology proficiencies, and professional development needs. (Goals 3d.2 and 4b.1)
- Student information system and/or student assessment data management system access records and notes/reports from teacher collaboration meetings (Goal 3i.1)
- Parent Portal usage records by teachers and parents (Goal 3j.1)
- Observation/survey of district, school, and individual teacher websites (Goal 3j.1)
- Professional development records (Goal 4b.1)
- Site reports about student work samples, portfolios, projects, and classroom observations (Goal 3e.1)
- Hardware inventory reports (Objectives in 5c)

The Interim Director of Technology, the Associate Superintendent, and the Assistant Superintendent of Instructional Personnel and Programs will then meet with the Superintendent to report on the outcome of this evaluation. An update will be presented to the District Technology Team and planning for next year's staff development and budget needs will begin based on the findings. In addition, site technology plans include a monitoring and evaluation component reviewed by the Assistant Superintendent of Instructional Personnel and Programs. The District Technology Team will have overall responsibility for evaluating district progress toward meeting the goals of this Technology Plan and for adjusting goals and strategies in this and in subsequent plans.

District Technology Leadership will work with principals throughout plan implementation to provide focus for the District vision on teaching and learning, to review trends and best practices, to monitor plan progress, to plan for and address key issues such as preparing for implementation of future statewide online assessments, and to provide Technology Plan updates to stakeholder groups.

Evaluation of the District's achievements in relation to these benchmarks is an annual process beginning with the Superintendent's goal setting for staff at the beginning of each school year

and ending with the Superintendent’s annual progress report to the Board of Education in August. In this meeting overall efforts to improve the District’s infrastructure in support of teaching and learning in the District are discussed and evaluated, and the District’s progress toward the achievement of state assessment goals is reported. The District’s annual technology improvements are included on the public agenda for this meeting.

The components of this plan are intended to represent stakeholder input to the District’s governing body in relation to technology improvement. The monitoring and continuous improvement of the District’s technology infrastructure is the primary job responsibility of the Interim Director of Technology.

Details on the evaluation processes for each set of goals and benchmarks, including persons responsible, are included in the Monitoring, Evaluation, and Program Modification Process charts of each goal in Sections 3d-3j (Curriculum), in Section 4c (Professional Development), in Section 5d (Infrastructure, Hardware, Technical Support, and Software), and in Section 6d (Funding and Budget).

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

This information is described in the Monitoring, Evaluation, and Program Modification Process charts of each goal in Sections 3d-3j; in Section 4c; in Section 5d; and in the Action Plans (including timelines) of Section 5.

The following chart shows the schedule for meetings and assessment measures that will be used in the evaluation of Technology Plan implementation.

Forum	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Principal Meetings		X	X	X	X	X	X	X	X	X	X	X
District Survey			X	X								
Site Technology Proficiency Survey										X	X	
Technology Inventory Updates							X	X	X			
California Standards Tests/Smarter Balanced		AYP report								X	X	
CAHSEE	X			X		X		X	X			
CELDT	X	X	X	X								
Graduation Rate		X										
District K-6 Writing			X								X	
District Benchmark Assessments			X		X	X	X		X	X	X	X
SBAC Technology Readiness Survey										X		
Student projects/			X	X	X	X	X	X	X	X	X	X

Forum	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
assignments/portfolios												
Review student report cards					X			X	X			X
Records of teacher use of data to drive instruction						X						X
Review of professional development records				X				X				X
Review of teacher websites and email use				X	X				X	X		

7c. Process and frequency of communicating evaluation results to technology plan stakeholders.

To initially disseminate the Technology Plan to stakeholders, the Cabinet will review the Plan, bring it to the Board for approval, post on the District website, and inform all stakeholders via monthly administrator meetings, staff meetings, and parent meetings. As the need arises, semi-annual newsletters and notices are created for posting to the District's internet and intranet sites. Publications and other communications highlighting instructional technology advancements will be provided to stakeholder groups and District administration as appropriate.

The Interim Director of Technology has annual communication with the District's Citizens' Task Force concerning technology planning outcomes. At these meetings, community representatives of each school and at large community representatives appointed by each member of the governing Board are present.

At school sites, communication about Technology Plan updates and progress is the primary responsibility of site principals with the assistance of their site Technology Committees and Site Technology Facilitators. Site Technology Committee Meetings are held at least twice a semester at the discretion of the principal and site staff. In these meetings, local implementation plans are discussed and necessary modifications to school-based timelines can be made.

8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY

Parents and adults within the community are referred to the local Los Angeles County Public Library and other adult programs in neighboring cities for adult literacy classes. BUSD also collaborates with the local community colleges to provide services to adult learners.

Somerset High School houses the District Independent Study Program for students in grades 7 to 12 and for adult re-entry of those over 18. Teacher and computer lab access are available daily. Pearson Learning's GradPoint online blended learning system provides course and supplemental options for core academic, elective, honors, and AP programs with 24/7 access to earn or recover credits.

The Las Flores Educational Center offers a wide range of over 200 fee-based academic and vocational online courses for adults toward personal enrichment, college readiness, preparation for industry certification, and professional development including courses for teachers and other professionals. Courses are offered for ESL, GED preparation, personal and business technology use, parenting, and technology integration courses for teachers. The Center partners with the Career Online High School to offer credit recovery courses in math, science, and language arts.

9. EFFECTIVE, RESEARCH-BASED METHODS AND STRATEGIES

9a. Summary of relevant research which supports curricular and professional development goals.

The annotated bibliography describes the research that was used in the preparation of this Plan and how the District has used and will use the research findings in the development and implementation of the Plan. The research was selected for its focus on strategies and methods to integrate technology in order to improve learning, teaching, and management.

CEO Forum (2001). The CEO Forum School Technology and Readiness Report: Key Building Blocks for Student Achievement in the 21st Century.

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.

Student achievement in BUSD is monitored through standards-based benchmark assessments and State Content Standards. 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 school board, 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.

CEO Forum (2000). The CEO Forum School Technology and Readiness Report. The Power of Digital Learning: Integrating Digital Content.

This report offers a vision for digital learning and focuses on actions that schools, teachers, students, and parents must take to integrate digital content into the curriculum to create the learning environments that develop 21st Century skills. The power of digital learning is discussed, including the need for digital learning, reasons why digital content is essential, shifting to digital learning environments, models from the business community, readjustment (expanding the scope of technology integration), the critical importance of professional development, and integrating digital content.

Consistent with this research, in the development of this Plan, BUSD has followed, and will continue to follow, the steps recommended in the report. In alignment with the report, the District has identified educational goals and linked technology resources to those objectives; established student outcomes and performance standards that will be achieved by the inclusion of technological resources; and determined a process for measurement and evaluation of the outcomes and modification of the plan accordingly.

The Conference Board, Corporate Voices for Working Families, Partnership for 21st Century Skills & Society for Human Resource Management. (2006). Are They Really Ready to Work? Employers' Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Work Force.
<http://www.cvworkingfamilies.org/system/files/readytoworkexecsum.pdf>

While the “three Rs” are still fundamental to any new workforce entrant’s ability to do the job, employers emphasize that applied skills are “very important” to success at work. Applied skills that employers most value include professionalism/work ethic, oral and written communications, teamwork/collaboration, and critical thinking/problem-solving—which they often find lacking in entry-level employees. The results of this study leave little doubt that improvements are needed in the readiness of new workforce entrants, if “excellence” is the standard for global competitiveness.

In accordance with this report, BUSD is developing Pacing Guides for teaching students academic, technology, and information literacy skills that will assist with their development of the applied skills most valued by employers. These Pacing Guides will be fully aligned with the new CCSS. Student use of technology, particularly productivity will focus on research/use of information, projects, and higher order thinking skills.

Connecting the Bits. A Reference for Using Technology in Teaching and Learning in K-12 Schools. (2000). The National Foundation for the Improvement of Education.
http://www.neafoundation.org/downloads/NEA-Connecting_the_Bits.pdf

This book provides information for integrating technology into teaching and learning in K-12 schools, based upon findings from two past programs of the National Foundation for the Improvement of Education. "The Road Ahead" program explored how technology can facilitate teaching and learning in both formal and informal education settings, and the "Learning Tomorrow" program funded pilot projects that investigated how technology can improve teaching and learning for underserved students.

As recommended throughout this document, BUSD has focused its attention first on establishing learning goals for students in alignment with the District’s Local Education Agency Plan, not technology goals. The emphasis of the plan is to help teachers become comfortable and highly competent in the integration of technology throughout the curricula. Integral to the plan, and supported by this research and others, is the belief that successful integration of technology depends on teachers who are knowledgeable, have opportunities for continuous learning, and who challenge their students academically while providing the support necessary to ensure their success. The professional development programs at BUSD have been designed to incorporate these concepts.

Framework for 21st Century Learning March (2011). The Partnership for 21st Century Skills.
http://www.p21.org/storage/documents/1_p21_framework_2-pager.pdf

The Partnership has developed a unified, collective vision for learning known as the Framework for 21st Century Learning. This Framework describes the skills, knowledge and expertise students must master to succeed in work and life; it is a blend of content knowledge, specific skills, expertise and literacies. Every 21st century skills implementation requires the development of core academic subject knowledge and understanding among all students. Those who can think critically and communicate effectively must build on a base of core academic

subject knowledge. Within the context of core knowledge instruction, students must also learn the essential skills for success in today’s world, such as critical thinking, problem solving, communication and collaboration.

When a school or district builds on this foundation, combining the entire Framework with the necessary support systems—standards, assessments, curriculum and instruction, professional development and learning environments—students are more engaged in the learning process and graduate better prepared to thrive in today’s global economy.

BUSD will incorporate the skills and knowledge students are required to master outlined in this framework in order to be successful in college and careers in the 21st century. The District will work toward creating a support system to help students develop multi-dimensional abilities.

From Paper to Pixel: Digital Textbooks and Florida Schools A White Paper. (2010).

Partnerships for Advancing Library Media (PALM) Center The Florida State University.
http://www.lsi.fsu.edu/documents/digitaltextbooks_whitepaper.pdf

Digital textbooks will soon be part of every classroom in the United States. This trend accompanies an imperative for schools to facilitate 21st century learning in which educators prepare students to learn and live productively in a global society where accurate and current information is a meaningful part of everyday learning. School librarians, especially those in Florida, can be key players in the successful implementation of digital textbooks to foster a sensible, balanced solution for educators and learners.

What is a Digital Textbook? Digital textbooks come in many forms ranging from:

- Electronic textbooks (e-textbooks) specially created for a reader like Amazon’s Kindle or Apple’s iPad.
- Read-on-demand computer-based textbooks like those from Google Books and NetLibrary.
- Print-on-demand e-textbooks.
- Modular assemblages of audio, visual, interactive, and text resources presented via iTunesU, wikis, and digital applications.

In this White Paper, they explore all types of digital textbooks and weigh the benefits and drawbacks of each format for schools. They examine the advantages and challenges of the growing use of digital textbooks and make recommendations for school librarians’ roles in the digital textbook implementation process.

BUSD is exploring the use of digital textbooks and their application on handheld devices as appropriate to implementation of CCSS. Providing electronic resources to students that are both cost-effective and appropriate while providing the most benefit are key considerations as the District moves to the use of these kinds of resources.

Hamilton, Laura, et al (2009). “Using Student Achievement Data to Support Instructional Decision Making.” IES Practice Guide. NCEE 2009-4067. National Center for Education Evaluation and Regional Assistance.

http://ies.ed.gov/ncee/wwc/pdf/practice_guides/dddm_pg_092909.pdf

The purpose of this practice guide is to help K-12 teachers and administrators use student achievement data to make instructional decisions intended to raise student achievement. The

guide focuses on how schools can make use of common assessment data to improve teaching and learning. For the purpose of the guide, the panel defined common assessments as those that are administered in a routine, consistent manner by a state, district, or school to measure students' academic achievement. These include: (1) annual statewide accountability tests such as those required by No Child Left Behind; (2) commercially produced tests--including interim assessments, benchmark assessments, or early-grade reading assessments--administered at multiple points throughout the school year to provide feedback on student learning; (3) end-of-course tests administered across schools or districts; and (4) interim tests developed by districts or schools, such as quarterly writing or mathematics prompts, as long as these are administered consistently and routinely to provide information that can be compared across classrooms or schools. This guide includes five recommendations that the panel believes are a priority to implement: (1) Make data part of an ongoing cycle of instructional improvement; (2) Teach students to examine their own data and set learning goals; (3) Establish a clear vision for school-wide data use; (4) Provide supports that foster a data-driven culture within the school; and (5) Develop and maintain a district wide data system.

As BUSD implements training and instruction for CCSS and the upcoming CDE online assessments, the District will refine and enhance the process of using benchmark assessments, interim tests, and course tests to inform instruction and establish a clear vision for the use of data.

Johnson, L., Adams, S., and Cummins, M. (2012). NMC Horizon Report: 2012 K-12 Edition. Austin, Texas: The New Media Consortium.
<http://www.nmc.org/pdf/2012-horizon-report-K12.pdf>

The NMC Horizon Report: 2012 K-12 Edition is a collaboration between the New Media Consortium, the Consortium for School Networking, and the International Society for Technology in Education. The six technologies featured in the report are placed along three adoption horizons that indicate likely timeframes for their entrance into mainstream use for teaching, learning, and creative inquiry. The near-term horizon assumes the likelihood of entry into the mainstream for schools within the next 12 months; the mid-term horizon, within two to three years; and the far-term, within four to five years. It should be noted at the outset that the NMC Horizon Report is not a predictive tool. It is meant, rather, to highlight emerging technologies with considerable potential for our focus areas of education and interpretation. Each of the six is already the target of work at a number of innovative organizations around the world, and the projects we showcase here reveal the promise of a wider impact.

BUSD Site Technology Facilitators will share best technology practices and explore the use of new emerging technologies for instructional use to assist teachers in assessing learning, increasing student achievement, and supporting success for all students. Of the six emerging technologies, BUSD is exploring the use of mobile devices and apps and expanding the use of iPads for many assignments as well as replacing far more expensive and cumbersome devices and equipment.

Jonassen, David H. (1999). Computers as Mindtools for Schools: Engaging Critical Thinking. 2nd edition. Prentice Hall
http://www.siue.edu/education/techready/5_Software_Tutorials/5_AncillaryPages/Mindtools.pdf

Jonassen provides good models of teaching and learning with technology taking into consideration a set of recognized best practices that support the effective integration of technology into the curriculum: standards (all technology-enhanced activities should be deliberately aligned with local, state, and national standards); assessment (each learning activity should be accompanied with well-defined indicators of success); accessibility (technology must be readily accessible in a way that meets the needs of all learners); and multiple learning strategies (including active, constructive, authentic, cooperative, and/or reflective learning strategies).

BUSD will follow these principles in using computer software to personalize instruction for all students according to their individual needs, to adapt and develop lessons for teaching students technology and information literacy skills, and to assure access to technology through maintaining a low student to computer ratio, providing Internet access in all classrooms, and increasing the number of presentation systems in classrooms.

Meyer, C. K., Vines, N. A., & Shankland, R. K. (2012). Designing high-quality professional development: Scaffolding secondary content-area teachers' discipline literacy instruction. American Reading Forum Annual Yearbook [Online], Vol. [http://americanreadingforum.org/yearbook/12_yearbook/documents/Meyer-C-K-Vines-N-A-Shankland-R-K-\(2012\).pdf](http://americanreadingforum.org/yearbook/12_yearbook/documents/Meyer-C-K-Vines-N-A-Shankland-R-K-(2012).pdf)

This document provides the framework for designing high quality professional development. It is based on the following principles: (a) providing learning opportunities that will expand teachers' content and pedagogical knowledge, (b) providing multiple and varied learning opportunities which include all participants, (c) providing protected time for collegial explorations of strategies, (d) valuing teachers for their expertise, (e) and respecting the culture of the community of practice.

BUSD has designed a professional development program consistent with the recommendations made in this document. The professional development programs address the needs of professionals at their respective levels. The training of administrators is also addressed. All professional development activities will be monitored, evaluated and modified, as described in the Plan.

Moeller, Babette and Reitzes, Tim (2011). Integrating Technology with Student-Centered Learning. Education Development Center, Inc. (EDC). Quincy, MA: Nellie Mae Education Foundation. <http://www.nmefoundation.org/getmedia/befa9751-d8ad-47e9-949d-bd649f7c0044/Integrating-Technology-with-Student-Centered-Learning?ext=.pdf>

Research suggests that technology can support key practices of student-centered learning, such as assessing individual students' strengths and needs, flexible scheduling and pacing, advising, presenting content in alternative ways, project-based learning, and involving the community. Technology also has been successfully integrated in curriculum-based and school-based approaches to personalize learning. However, while technology can support student centered learning, technology alone is not likely to transform traditional learning environments into student-centered ones. Research on the use and integration of technology suggests that teachers and schools are most likely to use technology to personalize learning if (1) it supports already existing, student-centered practices and helps to solve problems or address challenges; (2) it is part of a systemic, organization-wide initiative to implement student-centered learning; and (3)

teachers have access to ample professional development and ongoing support. While the research on technology and student-centered learning is limited, the existing knowledge base does suggest some implications for practice, policy, and research.

With the intent to expand education beyond traditional boundaries, student-centered learning focuses on educational practices and principles that:

- Provide all students equitable access to the knowledge and skills necessary for college and career readiness in the 21st century,
- Focus on mastery of skills and knowledge, and
- Align with current research on how people learn.

BUSD will enhance and expand technology integration into the classroom to personalize instruction, to improve student academic and technology proficiencies, and to better prepare students with 21st Century skills toward preparing them for college and career readiness. Administrators and teachers will receive professional development focused on student-centered learning as it transitions to providing each student a computer or handheld device toward addressing their individual need and increasing student achievement.

Out of Print: Reimagining the K-12 Textbook in a Digital Age. (2012). State Educational Technology Directors Association (SETDA).

http://www.setda.org/c/document_library/get_file?folderId=321&name=DLFE-1587.pdf

In total, 22 states have introduced either definitional or funding flexibility, launched a digital textbook initiative, and/or launched an OER initiative. Common to virtually all of these efforts are strong state leadership, a culture of innovation, a belief in increased local flexibility in spending and content choice, and strong implementation plans. Yet, policy changes regarding instructional materials are not sufficient to ensuring that digital content gets into the classroom and is used effectively. In making the shift to digital instructional materials, states and districts need to address the following interrelated issues:

- Sustainable funding for devices. Without easy access to devices, students cannot take full advantage of the digital content (and these same devices can and should be leveraged for other educational ends, including online assessment and access to online learning).
- Robust internet connectivity. States need to plan for and implement a network and internet infrastructure sufficient to enable pervasive, simultaneous use of devices for instruction, assessment, and school operations.
- Up-to-date policies and practices. In addition to state policy changes, local districts need to examine their policies and practices to jettison those that inhibit the use of digital content and look for initiatives and incentives to encourage its use.
- Prepared educators. Colleges of education need to prepare teachers to use digital content, and districts need to provide opportunities for sustained professional learning, including online access to communities of practice.
- Intellectual property and reuse rights. A key benefit of digital content is its flexibility, but content should be licensed to take advantage of the flexibility and encourage sharing and customization.
- Quality control and usability. If digital content is vetted at the local level and tagged in such a way as to make it easy to find and use in a variety of situations, it saves teachers time and helps them to personalize learning in their classrooms.

- State and local leadership buy-in. Leadership is a key factor in changes in state policy, and it is no less important at the local level. Leaders provide the necessary vision and support to enable successful implementation planning.

As BUSD is exploring the use of digital textbooks and their application on handheld devices as appropriate to implementation of CCSS, establishing appropriate policy for use of these materials are key considerations. Funding, connectivity, district policy, licensing, quality control and usability, and instructional leadership are considerations to be evaluated. Policy development and planning for use will be necessary.

P21 Common Core Toolkit: A Guide to Aligning the Common Core State Standards with the Framework for 21st Century Skills (2011). The Partnership for 21st Century Skills.
<http://www.p21.org/storage/documents/P21CommonCoreToolkit.pdf>

This toolkit is designed for state and district leaders who are interested in implementing the Common Core standards in ways that strengthen the 4Cs (Critical Thinking, Communication, Collaboration, Creativity) including the following:

- Alignment Overview: A high-level summary of how the P21 framework and the Common Core State Standards support each other
- Common Core/P21 Examples: Lesson starters that illustrate “what it looks like” to align instructional practices with both the Common Core and P21 skills
- Common Core Resources: Compilation of useful links for states and districts working to implement the Common Core State Standards
- Assessment Resources: Compilation of background reading on the issues of assessment and the 4Cs

BUSD will consider the processes and strategies suggested as the District implements instruction and assessment focused on the CCSS and the alignment to the BUSD curriculum Pacing Guides.

Redesigning Schools: Models To Reach Every Student With Excellent Teachers. (2012). Opportunityculture.org. <http://opportunityculture.org/wp-content/uploads/2012/04/Multi-Classroom Leadership School Model-Public Impact.pdf>

This model enables excellent teachers to reach many more students, both directly through instruction and indirectly, by improving the work of other teachers and staff in multiple classrooms. Teacher-leaders coordinate teams that jointly attend to each student’s academic, social, emotional, behavioral, and time-management skills. Students who would not otherwise have access to an excellent teacher’s standards and methods can now have them, either directly from the excellent teacher or from a teacher on the team.

BUSD continues to explore strategies that increase student achievement and address individual student needs. Professional Learning Communities and the planned creation of site teams to support CCSS implementation will enhance teaching and learning. Consistent with those goals, the District will investigate leadership teams to support both teachers and students.

Penuel, W.R., Boscardin, C.K., Masyn, K., Crawford, V., (2007). Teaching with student response systems in elementary and secondary education settings: A survey study. Educational Technology Research and Development, 55, 315-346.
<http://ctl.sri.com/publications/displayPublication.jsp?ID=631>

This study examined how 498 elementary and secondary educators use student response systems in their instruction. The teachers all completed an online questionnaire designed to learn about their goals for using response systems, the instructional strategies they employ when using the system, and the perceived effects of response systems. Participants in the study tended to use similar instructional strategies when using the technology as have been reported in higher education. These include posing questions to check for student understanding and diagnose student difficulties, sharing a display of student responses for all to see, asking students to discuss or rethink answers, and using feedback from responses to adjust instruction.

Survey results indicate students in classrooms where teachers use the systems frequently and in conjunction with a broad range of teaching strategies will benefit more than would students in classrooms where there are response systems but where those systems are used less frequently and only for summative purposes. The effects indicated are three-fold: there would be improved feedback to students, an improved learning environment (facilitated by shared knowledge of how well students understand material), and enhanced learning and engagement. Finally, teachers need to receive professional development in how to teach with response systems in order to adopt the systems to a level involving broad, frequent use with students.

Some BUSD teachers use response systems for formative assessment in math and English classes to increase student engagement and provide immediate feedback, effective in increasing student achievement. As funds allow, schools will expand use of these systems for modification of instruction.

Renaissance Learning (2002). How Scientific Research Supports the School Renaissance School Improvement Process. Renaissance Learning Educational Research Department.
<http://www.wcpsteacher.org/education/page/download.php?fileinfo=QVJfU3R1ZGllcy5wZGY6Ojovd3d3L3NjaG9vbHMvc2MvcmVtb3RIL2ltYWdlcy9kb2NtZ3IvMTA4N2ZpbGU0MTQ4LnBkZg>

This summary of 110 research reports demonstrates that Reading Renaissance and Math Renaissance are research-based programs according to the NCLB definition: grounded in theory, demonstrating evidence of effectiveness, evaluated by third parties, published in peer-reviewed journals, sustainable, and replicable in schools with diverse settings. Research-based principles include: more time for personalized instruction and practice, practice of skills focused at each student's appropriate ability level, information feedback to enhance the learning process, establishing personalized goals as an effective motivational strategy, and use of technology to provide formative and diagnostic information feedback on learning to inform instruction.

Consistent with this research, Accelerated Reader and Accelerated Math are key resources used in BUSD schools.

Ringstaff, Cathy; Kelley, Loretta. (2002). The learning return on our educational technology investment. A review of findings from research. West Ed.
http://www.wested.org/online_pubs/learning_return.pdf.

This paper summarizes major research findings related to educational technology use and draws out implications for how to make the most of technology resources, focusing on pedagogical and policy issues. The distinctions between learning "from" computers and learning "with" computers are delineated. The findings of the research focus on adequate and appropriate teacher training; changing teacher beliefs about learning and teaching; sufficient and accessible

equipment, including adequate computer-to-student ratio; long-term planning; technical and instructional support.

Consistent with this research, BUSD's Technology Plan has been designed to address the benefits and rationale for both learning "from" technology (i.e., using computers to assist students in learning skills, etc.) and learning "with" technology (i.e., using technology to assist students with projects and other higher order thinking skills lessons). The Plan also addresses sufficient and accessible equipment, and technical and instructional support. Long-term planning and monitoring are built into the Plan.

Smith, Grace E.; Throne, Stephanie (2007). Differentiating Instruction with Technology in K–5 Classrooms. Excerpt from Chapter 1 "Overview and Principles of Differentiated Instruction." International Society for Technology in Education
<http://www.iste.org/images/excerpts/DIFFK5-excerpt.pdf>

Differentiated instruction focuses on teaching strategies that give diverse students multiple options for taking in and processing information, making sense of ideas, and expressing learning. Technology tools can support good instruction and offer personalized learning environments in which students interact with software, conduct research, create products, and communicate with others outside their school. Both differentiated instruction and technology tools are important for 21st century education, aka digital age learning.

According to the Center for Applied Research in Educational Technology (CARET), a project of the International Society for Technology in Education in partnership with Education Support Systems and the Sacramento County Office of Education, technology can help improve student performance in five key ways:

- Technology improves student performance when the application directly supports the curriculum objectives being assessed.
- Technology improves performance when the application provides opportunities for student collaboration.
- Technology improves performance when the application is integrated into the typical instructional day.
- Technology improves performance when the application provides opportunities for students to design and implement projects that extend the curriculum content being assessed by a particular standardized test.
- Technology improves performance when used in environments where teachers, the school community, and school and district administrators support the use of technology.

BUSD is committed to personalizing and customizing learning to address individual student needs and will continue to explore ways to use technology to differentiate instruction. Teachers will share best practices and strategies in Professional Learning Communities.

Strudler, N. (1994). The Role of School-Based Technology Coordinators As Change Agents in Elementary School Programs: A Follow-up Study. Presented at AERA, New Orleans, LA, April 5, 1994.
http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/13/c9/e4.pdf

There is a continuing need for the school site presence of a technology coordinator who can

serve as a mentor or "translator" of technology applications and instructional integration for teachers. Appropriate technology resource personnel are not only for the early stages of a technology initiative or technology plan.

In BUSD, Technology Facilitators provide assistance to teachers in the integration and use of technology. They serve as mentors for instructional integration.

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.edsource.org/assets/files/SimStu05.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 (including use of pacing schedules); 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.

BUSD will integrate technology use with all four of the highest ranked practices, including use of appropriate software and technology/information literacy skills with district curriculum pacing schedules; increasing student access to technology, including electronic textbook resources 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.

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

The Bellflower Unified School District utilizes a number of innovative strategies for using technology to deliver rigorous or specialized courses and curricula and will actively investigate developing additional strategies.

Distance learning is used in most school sites in various capacities including online intervention programs, online curriculum, and rigorous academic courses. The Independent Study program is utilizing GradPoint to provide personalized content delivery in several areas for credit recovery.

Middle and high schools offer a variety of honors and AP courses. High schools use NovaNET and OdysseyWare for online courses. High schools offer courses in advanced computer applications through Career Technical Education and ROP programs in a variety of pathway programs.

The Bellflower Unified School District will expand its current distance learning program. This will allow the District to provide opportunities for more students to access credit recovery courses and experience Advanced Placement and other college preparatory courses, as well as courses that are difficult to staff due to the limited number of students electing to enroll in the

course (i.e., foreign language classes such as Japanese and German). The Assistant Superintendent of Instructional Personnel and Programs will facilitate the process of determining which courses have top priority and which technology is needed, if any, to allow for smooth video streaming and other methods of communication.

Appendix C – Criteria for EETT Technology Plans

(Completed Appendix C is REQUIRED in a technology plan)

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

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

1. PLAN DURATION CRITERION	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
The plan should guide the District’s use of education technology for the next three to five years. (For a new plan, can include technology plan development in the first year)	page 6	The technology plan describes the Districts use of education technology for the next three to five years. (For new plan, description of technology plan development in the first year is acceptable). Specific start and end dates are recorded (7/1/xx to 6/30/xx).	The plan is less than three years or more than five years in length. Plan duration is 2008-11.
2. STAKEHOLDERS CRITERION	Page in District Plan	Example of Adequately Addressed	Not Adequately Addressed
Corresponding EETT Requirement(s): 7 and 11 (Appendix D).			
Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.	Pages 6-8	The planning team consisted of representatives who will implement the plan. If a variety of stakeholders did not assist with the development of the plan, a description of why they were not involved is included.	Little evidence is included that shows that the District actively sought participation from a variety of stakeholders.

3. CURRICULUM COMPONENT CRITERIA Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.	Pages 9-10	The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers.	The plan explains technology access in terms of a student-to-computer ratio, but does not explain where access is available, who has access, and when various students and teachers can use the technology.
b. Description of the District's current use of hardware and software to support teaching and learning.	Pages 11-12	The plan describes the typical frequency and type of use (technology skills/information and literacy integrated into the curriculum).	The plan cites district policy regarding use of technology, but provides no information about its actual use.
c. Summary of the District's curricular goals that are supported by this tech plan.	Pages 12-13	The plan summarizes the District's curricular goals that are supported by the plan and referenced in district document(s).	The plan does not summarize district curricular goals.
d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the District curricular goals.	Pages 14-20	The plan delineates clear goals, measurable objectives, annual benchmarks, and a clear implementation plan for using technology to support the District's curriculum goals and academic content standards to improve learning.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology	Pages 20-25	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire	The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to accomplish the goals.

<p>skills and information literacy skills needed to succeed in the classroom and the workplace.</p>		<p>technology skills and information literacy skills.</p>	
<p>f. List of goals and an implementation plan that describe how the District will address the appropriate and ethical use of information technology in the classroom so that students and teachers can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism</p>	<p>Pages 25-27</p>	<p>The plan describes or delineates clear goals outlining how students and teachers will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing and/or downloading.</p>	<p>The plan suggests that students and teachers will be educated in the ethical use of the Internet, but is not specific enough to determine what actions will be taken to accomplish the goals.</p>
<p>g. List of goals and an implementation plan that describe how the District will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid online predators.</p>	<p>Pages 27-30</p>	<p>The plan describes or delineates clear goals outlining how students and teachers will be educated about Internet safety.</p>	<p>The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals of educating students and teachers about internet safety.</p>
<p>h. Description of or goals about the District policy or practices that ensure equitable technology access for all students.</p>	<p>Pages 30-31</p>	<p>The plan describes the policy or delineates clear goals and measurable objectives about the policy or practices that ensure equitable technology access for all students. The policy or practices clearly support</p>	<p>The plan does not describe policies or goals that result in equitable technology access for all students. Suggests how technology will be used, but is not specific enough to know what action needs to be</p>

		accomplishing the plan's goals.	taken to accomplish the goals.
i. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs.	Pages 31-34	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to support the District's student record-keeping and assessment efforts.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
j. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.	Pages 34-37	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve two-way communication between home and school.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
k. Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.	Page 37	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.

4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA Corresponding EETT Requirement(s): 5 and 12 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.	Pages 38-41	The plan provides a clear summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development. The findings are summarized in the plan by discrete skills that include Commission on Teacher Credentialing (CTC) Standard 9 and 16 proficiencies.	Description of current level of staff expertise is too general or relates only to a limited segment of the District's teachers and administrators in the focus areas or does not relate to the focus areas, i.e., only the fourth grade teachers when grades four to eight are the focus grade levels.
b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (Sections 3d – 3j) of the plan.	Pages 41-45	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing teachers and administrators with sustained, ongoing professional development necessary to reach the Curriculum Component objectives (sections 3d – 3j) of the plan.	The plan speaks only generally of professional development and is not specific enough to ensure that teachers and administrators will have the necessary training to implement the Curriculum Component.
c. Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.	Pages 45-47	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.

<p>5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA</p> <p>Corresponding EETT Requirement(s): 6 and 12 (Appendix D).</p>	<p>Page in District Plan</p>	<p>Example of Adequately Addressed</p>	<p>Example of Not Adequately Addressed</p>
<p>a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the District that will be used to support the Curriculum and Professional Development Components (Sections 3 & 4) of the plan.</p>	<p>Pages 48-62</p>	<p>The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components.</p>	<p>The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail.</p>
<p>b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the District's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan.</p>	<p>Pages 48-62</p>	<p>The plan provides a clear summary and list of the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support the District will need to support the implementation of the District's Curriculum and Professional Development components.</p>	<p>The plan includes a description or list of hardware, infrastructure, and other technology necessary to implement the plan, but there doesn't seem to be any real relationship between the activities in the Curriculum and Professional Development Components and the listed equipment. Future technical support needs have not been addressed or do not relate to the needs of the Curriculum and Professional Development Components.</p>
<p>c. List of clear annual benchmarks and a</p>	<p>Pages 62-67</p>	<p>The annual benchmarks and timeline are specific</p>	<p>The annual benchmarks and timeline are either</p>

<p>timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b.</p>		<p>and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when.</p>	<p>absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when.</p>
<p>d. Describe the process that will be used to monitor Section 5b & the annual benchmarks and timeline of activities including roles and responsibilities.</p>	<p>Pages 67-69</p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.</p>

6. FUNDING AND BUDGET COMPONENT CRITERIA Corresponding EETT Requirement(s): 7 & 13, (Appendix D)	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. List established and potential funding sources.	Page 70	The plan clearly describes resources that are available or could be obtained to implement the plan.	Resources to implement the plan are not clearly identified or are so general as to be useless.
b. Estimate annual implementation costs for the term of the plan.	Pages 70-73	Cost estimates are reasonable and address the total cost of ownership, including the costs to implement the curricular, professional development, infrastructure, hardware, technical support, and electronic learning resource needs identified in the plan.	Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed.
c. Describe the District's replacement policy for obsolete equipment.	Pages 73-74	Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components.	Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented.
d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.	Pages 74-75	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.

7. MONITORING AND EVALUATION COMPONENT CRITERIA Corresponding EETT Requirement(s): 11 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.	Pages 76-77	The plan describes the process for evaluation using the goals and benchmarks of each component as the indicators of success.	No provision for an evaluation is included in the plan. How success is determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing.
b. Schedule for evaluating the effect of plan implementation.	Pages 77-78	Evaluation timeline is specific and realistic.	The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan.
c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.	Page 78	The plan describes the process and frequency of communicating evaluation results to tech plan stakeholders.	The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings.

<p>8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION</p> <p>Corresponding EETT Requirement(s): 11 (Appendix D).</p>	<p>Page in District Plan</p>	<p>Example of Adequately Addressed</p>	<p>Example of Not Adequately Addressed</p>
<p>If the District has identified adult literacy providers, describe how the program will be developed in collaboration with them. (If no adult literacy providers are indicated, describe the process used to identify adult literacy providers or potential future outreach efforts.)</p>	<p>Page 79</p>	<p>The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers or potential future outreach efforts.</p>	<p>There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the use of technology.</p>

<p>9. EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA</p> <p>Corresponding EETT Requirement(s): 4 and 9 (Appendix D).</p>	<p>Page in District Plan</p>	<p>Example of Adequately Addressed</p>	<p>Not Adequately Addressed</p>
<p>a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.</p>	<p>Pages 80-88</p>	<p>The plan describes the relevant research behind the plan's design for strategies and/or methods selected.</p>	<p>The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing.</p>
<p>b. Describe the District's plans to use technology to extend or supplement the District's curriculum with rigorous academic courses and curricula, including distance-learning technologies.</p>	<p>Pages 89-90</p>	<p>The plan describes the process the District will use to extend or supplement the District's curriculum with rigorous academic courses and curricula, including distance-learning opportunities (particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources).</p>	<p>There is no plan to use technology to extend or supplement the District's curriculum offerings.</p>

Appendix J – Technology Plan Contact Information

Education Technology Plan Review System (ETPRS) Contact Information

County & District Code: **19 - 64303**

School Code (Direct funded charters only): _____

LEA Name: Bellflower Unified School District

*Salutation: Mr.

*First Name: Phil

*Last Name: Eichar

*Job Title: Interim Director of Technology

*Address: 16703 South Clark Ave.

*City: Bellflower

*Zip Code: 90706-5203

*Telephone: 562-866-9011

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Please provide backup contact information.

1st Backup Name: Marcy Delgado, Assoc. Supt., Business and Personnel Services

1st Backup E-Mail: mdelgado@busd.k12.ca.us

2nd Backup Name: Dr. Brian Jacobs, Superintendent

2nd Backup E-Mail: bjacobs@busd.k12.ca.us

*Required information in the ETPRS