



# Technology Plan

## July 1, 2011 - June 30, 2014

The mission of the California Montessori Project is to offer a quality, tuition-free Montessori education to every child in the state of California.

California Montessori Project Technology Advisory Council  
Submitted March 11, 2011

**California Montessori Project  
Technology Plan  
July 1, 2011 – June 30, 2014**

**1. PLAN DURATION CRITERION**

**Background:**

The California Montessori Project presently serves 1,656 K – 8<sup>th</sup> grade children and their families in Northern California. This includes our newest campus, Orangevale, which opened its doors on August 17, 2010. The California Montessori Project opened in April 2001 with 486 students and is a thriving charter school community developed in response to parent and teacher demand. The California Montessori Project was originally sponsored by the Wheatland School District in Yuba County. Our five campuses are now re-authorized through their four local school districts: Buckeye Unified School District, Elk Grove Unified School District, Sacramento City Unified School District, and the San Juan Unified School District. We represent a diverse cultural community, with four campuses in urban communities, one inner city campus, and one rural campus.

All teachers at the California Montessori Project are required to have California credentials and Montessori certifications for the ages they teach. The Montessori curriculum is aligned with the California State Standards, and the California Montessori Project has obtained MSAC and WASC accreditations.

In accordance with the Montessori philosophy to provide practical life skills to students, the California Montessori Project is committed, through this Technology Plan, to fully integrate technology into all classes in a wide range of subjects and to provide teachers with the opportunity to utilize innovative applications of technology within the curricula. The California Montessori Project believes that technology in the classroom provides direct educational and career benefits to students and ensures sustained professional development for teachers and other educators.

The California Montessori Project seeks to provide technology support for their low-income families who do not have technology in their homes and to create strategies for accelerating the academic progress of at-risk children via technology.

**Key areas of need have been identified by the California Montessori Project's Technology Advisory Council:**

- ✓ Increasing student academic and technology competency.
- ✓ Increasing staff technology competency.
- ✓ Integration of technology throughout curricula to improve overall education achievement.

Our expectation is that students' performance scores will improve across the curricula, and specifically in Language Art (reading, reading comprehension and vocabulary) and Mathematics in the K through 8th grades.

California Montessori Project Technology Plan – 2011-2014

**Demographic Data:**

**2009-2010 CBEDS Data:**

California Montessori Project Campus	Grades	Enrollment	School District
San Juan Campuses (AR/CAR) - Urban	K-8	689	San Juan
Capitol Campus – Inner City	K-6	198	Sacramento
Elk Grove Campus – Urban	K-8	295	Elk Grove
Shingle Springs Campus – Rural	K-8	331	Buckeye
<b>Total All Campuses</b>		<b>1513</b>	

The information contained above does not include California Montessori Project’s newest campus located in Orangevale, CA.

**Student Population by Race At CBEDs By School:**

California Montessori Project Campus	Hispanic/Latino	American Indian /Alaskan Native	Asian	Hawaiian/Pacific Islander	Black	White	Multiple	Declined to State
San Juan Campuses (AR/CAR)	14.66%	1.02%	6.97%	0.73%	5.81%	67.78%	3.05%	0.00%
Capitol Campus	25.25%	1.01%	8.08%	0.51%	11.11%	46.46%	7.58%	0.00%
Elk Grove Campus	19.32%	2.03%	11.53%	0.34%	7.80%	53.90%	5.08%	0.00%
Shingle Springs Campus	12.99%	1.81%	4.53%	0.30%	0.00%	69.49%	10.88%	0.00%

The information contained above does not include California Montessori Project’s newest campus located in Orangevale, CA.

**Other Demographic Data At CBEDs By School:**

California Montessori Project Campus	Special Education	NSLP Students	ELL Students	Credentialed Teaching Staff	Certificated Staff
San Juan Campuses (AR/CAR)	52	189	17	38	43
Capitol Campus	19	34	10	13	14
Elk Grove Campus	35	60	4	17	19
Shingle Springs Campus	26	42	2	19	23

The information contained above does not include California Montessori Project’s newest campus located in Orangevale, CA.

**1.a. The California Montessori Project's use of education technology for the next 3 years: July 1, 2011-June 30, 2014**

**Vision for Technology Use:**

This Technology Plan is envisioned to guide the California Montessori Project for the next year with the process repeating for years 2 and 3 based upon current data. As a result, we anticipate that by June of 2014:

- Parents will have computer access through a kiosk device available in the school office.
- Teachers will receive support and training in technology components related to curriculum, latest research, record keeping, communication, and assessment.
- A continuum of technology lessons while incorporating these lessons at each of the grade levels, and aligned with the *California Content Standards (CCS)* and the *National Education Technology Standards (NETS)*.
- Students will use technology tools to help master California Content Standards in the core curriculum and in a wide range of subjects.
- School-based computers, software, and networking will function reliably with timely assistance from trained computer and network personnel as needed.

**Expected student outcomes in 3 years as a result of technology use:**

- Increased student use of computers in classrooms will improve their mastery of California Content Standards as measured by the statewide STAR tests and Montessori assessments.
- Students will become more proficient in computer skills and applications through the use of online applications as measured by NETS.
- Students will experience hands-on remedial instruction through the use of technology tools.
- All students will become more proficient in their use of the Internet and web-based communications as it relates to educational uses.
- Students will master techniques to search for, utilize, reference and analyze online digital information as well as how to collaborate with others electronically in a learning environment such as email, conferencing, etc.

All students will be working toward proficiency in the Framework 21<sup>st</sup> Century Learning; the 4 C's of Critical Thinking and Problem Solving, Communication, Collaboration, Creativity and Innovation along with Information, Technology and Media skills.

**Expected staff outcomes in 3 years as a result of technology use:**

- Teachers will increase their use of technology resources to organize, teach, and assess student learning in California Content Standards (Staff will use the California Learns Portal and Linkit to analyze and monitor student assessment results and make data-driven curriculum decisions. Classroom teachers will develop quizzes, tests, and other assessments on Linkit to produce reports, which will monitor student progress to grade level standards.)
- School staff will electronically track each student's school-based data and his/her progress in mastery of California Content Standards.
- All teachers will advance in technology skills according to Technology Proficiency Standards set by the California Commission on Teacher Credentialing.

**Expected technology outcomes for infrastructure, hardware, technology support and software:**

## California Montessori Project Technology Plan – 2011-2014

- The California Montessori Project will continue to upgrade outdated computers and network devices.
- The California Montessori Project is committed to the goal of a student to computer ratio of 5:1 for 2<sup>nd</sup> -8<sup>th</sup> grade classrooms and 10:1 for Kindergarten and 1<sup>st</sup> grade classrooms, having a teacher's workstation available in each classroom, and providing computers in each library/resource room.
- The California Montessori Project will enhance network performance, reliability, and security by upgrading all existing equipment, by maintaining virus protection for all computers, by installing and monitoring hardware-based firewalls, and by installing content filtering network appliances.
- The California Montessori Project will enhance network performance and reliability by adding additional hardware, by continuing to upgrade virus protection for all computers, and by continually upgrading existing routers, switches, and hardware/software based firewalls to provide enhanced network security.
- The California Montessori Project will seek to upgrade network infrastructure and bandwidth to provide maximum access to the World Wide Web and improve connectivity between district sites.
- The California Montessori Project will provide advanced training in network access, basic workstation maintenance/installation, software applications, networked data storage and online resources to all staff.
- The California Montessori Project will subscribe to online services (CTAP Online) to support instructional technology staff development.
- The California Montessori Project will provide technology support for the infrastructure, hardware, software and maintenance.
- Additional software applications supporting student learning in the California Content Standards will be acquired as needed.
- The California Montessori Project will provide equipment for podcasting capabilities in classrooms for grades 4-8.
- The California Montessori Project will provide training for staff in using podcasting.
- The California Montessori Project will provide training for staff in classroom Wiki's.
- The California Montessori Project will continue providing online learning opportunities for classrooms and home study.
- The California Montessori Project will provide classroom Netbooks in grades 6-8, subsidizing the 5:1 ratio.
- The California Montessori Project will provide projectors for all classrooms.
- The California Montessori Project will provide interactive white boards for classrooms in grades 4-8 classrooms with one set of responding clickers.
- The California Montessori Project will provide training in basic networking, workstation maintenance, software applications, best practices in technology integration, and online resources to all teaching staff.
- The California Montessori Project Technology Advisor will continue to monitor a hardware acquisition plan that includes: 1) an inventory of existing technology, 2) an assessment of all technology purchased by the California Montessori Project, 3) a database to track all existing technology equipment and maintenance procedures, and 4) a timeline and budget for recommended replacement and expansion of technology.

- The California Montessori Project will subscribe to online services and will purchase software solutions which support student learning in California Content Standards.

**Expected funding/budget outcomes in 3 years:**

- Technology curriculum, professional development, software, books, and Internet access will be supported by the California Montessori Project's General Fund, applicable categorical programs, Title I, and lottery funds.
- California Montessori Project plans to make use of funds through private and public donations to support the purchase of new technology.
- California Montessori Project will seek out grant and foundation support to help fund the technology program.
- Additionally, E-rate funding will be applied for and used towards the purchase of equipment and services.
- IT support will continue and be increased to a 2.0 FTE while phasing out the technology mentoring positions once a California Montessori Project Wide Area Network is obtained.

**Expected monitoring and assessment outcomes in 3 years:**

- Annual increases in teachers' technology proficiencies per the EDTECHPROFILE Assessment.
- Annual increases in teachers' use of technology to enhance curriculum.
- Students' progress in mastering the California Content Standards in the core curriculum and a wide range of subjects.
- Annual maintenance and infrastructure upgrade activities will be reviewed and adjustments made as indicated.
- Develop a more user friendly data inventory management program and problem reporting / tracking system to monitor California Montessori Project's network.
- Annual maintenance and infrastructure upgrade activities are reviewed and adjustments made as indicated.

## 2. STAKEHOLDERS CRITERION

### 2.a. How a variety of stakeholders from within the school district and the community at large participated in the planning process.

The planning process was spearheaded by the Technology Advisory Council which includes the Technology Advisor, the Executive Director, six Principals, and five campus Technology Mentors. All members associated with this effort will help support the activities involved and ensure completion to the fullest.

#### Participating Stakeholders

##### **District Personnel**

Gary Bowman, Executive Director

##### **Technology Personnel**

Meredith L Jolly, Technology Advisor

Kim Zawilski, Technology Coordinator

##### **Financial Personnel**

Tamara Johnson, Chief Business Official, Wheatland School District

##### **Site Administrators**

Julie Miller, Principal, American River Campus

Kim Aldridge, Principal, Carmichael Campus

Bernie Evangelista, Principal, Capitol Campus

Mickey Slamkowski, Principal, Elk Grove Campus

Dorothy Hiltz, Principal, Orangevale Campus

Kim Zawilski, Principal, Shingle Springs Campus

##### **Technology Mentors**

Mark Cook, Teacher, American River Campus

Kathy Gaudreau, Teacher, Carmichael Campus

Heather Stanley, Administrative Assistant, Capitol Campus

Ken Endrizzi, Teacher, Elk Grove Campus

Meredith Jolly, Technology Advisor, Orangevale Campus

Kris Rogers, Teacher, Shingle Springs Campus

##### **Government Agencies**

Jan Valine CTAP 3 Ed Tech Coordinator

The CTAP representative on our Technology Plan team offered technical assistance with: the data analyses and revision of our goals and objectives; professional development planning and implementation; EETT Formula Funding; E-rate; K-12 Vouchers; compliance issues; hardware, software, and infrastructure.

### **3. CURRICULUM COMPONENT CRITERIA**

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

All data shown below reflects current counts as of October 21, 2010.

Teachers and students have access to computers throughout the school day, and both before and after school in hourly programs offered at the schools. The charts below provide information about the computer technology currently used in each of our classrooms, as well as the current student to computer ratio as it relates to students only.

All classrooms have computer devices and all have access to the Internet. There are devices in each classroom specifically for the students and as funding is available, separate devices are acquired for the classroom teachers. The majority of computers are newer than three years old. Further, the majority of classrooms have a network printer.

California Montessori Project has invested in three Technology Carts containing laptops, power packs, mice and headsets. The purpose of these carts is to move from classroom to classroom to supplement our 5:1 ratio. This in no means, however, is a substitute for ensuring the 5:1 ratio within each class.

Further access for students to computer devices in after school hourly programs, or pre / post school care (Club Montessori) is minimal. All campuses provide specific after school programs that meet the needs of each classroom / campus. After school programs are held in classrooms which have computer devices available. Shingle Springs is able to provide 2 devices in Club Montessori and 12 devices in the portable technology cart. Elk Grove is able to provide 8 devices in the portable technology cart. American River is able to provide 3 devices in Club Montessori and 30 devices in the portable technology cart. Capitol is preparing to install and provide 5 devices in Club Montessori. Finally, Carmichael is able to provide 2 devices in Club Montessori. Orangevale is unable to provide any additional support at this time.

Students with special needs and English Language Learners utilize computers in the classrooms in addition to occasional use of the Special Education computers as available.

California Montessori Project Technology Plan – 2011-2014

**Student Access To Technology:**

**American River Campus**

<b>Student Access To Technology In:</b>	<b>Grade Levels</b>	<b>Number of Computer Workstations</b>	<b>Student to Computer Ratio</b>	<b>Student to Computer Ratio w/technology cart</b>	<b>Before/ After School</b>
Cassatt Class with 20 students	K/1 <sup>st</sup>	4	5:1	N/A	Y
Sendak Class with 20 students	K/1 <sup>st</sup>	4	5:1	N/A	Y
Rockwell Class with 20 students	K/1 <sup>st</sup>	4	5:1	N/A	Y
Degas Class with 20 students	K/1 <sup>st</sup>	4	5:1	N/A	Y
Da Vinci Class with 20 students	K/1 <sup>st</sup>	4	5:1	N/A	Y
Klee Class with 20 students	2 <sup>nd</sup> /3 <sup>rd</sup>	4	5:1	N/A	Y
Kinkade Class with 36 students	2 <sup>nd</sup> /3 <sup>rd</sup>	7	5:1	N/A	Y
Van Gogh Class with 20 students	2 <sup>nd</sup> /3 <sup>rd</sup>	4	5:1	N/A	Y
Linnaeus Class with 20 students	2 <sup>nd</sup> /3 <sup>rd</sup>	4	5:1	N/A	Y
Monet Class with 26 students	5 <sup>th</sup> /6 <sup>th</sup>	5	5:1	1:1	Y
Chagall Class with 28 students	5 <sup>th</sup> /6 <sup>th</sup>	6	5:1	1:1	Y
Renoir Class with 28 students	5 <sup>th</sup> /6 <sup>th</sup>	6	5:1	1:1	Y
Klimt Class with 22 students	4 <sup>th</sup>	4	5:1	1:1	Y
Adams Class with 22 students	4 <sup>th</sup>	5	4:1	1:1	Y
Rivera Class with 23 students	7 <sup>th</sup> /8 <sup>th</sup>	5	5:1	1:1	Y
Escher Class with 23 students	7 <sup>th</sup> /8 <sup>th</sup>	5	5:1	1:1	Y
Audubon Class with 23 students	7 <sup>th</sup> /8 <sup>th</sup>	5	5:1	1:1	Y
Read Naturally Class serving 15 students	K-8 <sup>th</sup>	4	4:1	N/A	N
Tech Cart supplements 5:1 ratio	K-8 <sup>th</sup>	30	N/A	N/A	N

American River has chosen to use the Tech Cart for grades 4<sup>th</sup>-8<sup>th</sup> only.

**Capitol Campus**

<b>Student Access To Technology In:</b>	<b>Grade Levels</b>	<b>Number of Computer Workstations</b>	<b>Student to Computer Ratio</b>	<b>Before/ After School</b>
Golden Poppy Class with 20 students	K	2	10:1	Y
Valley Quail Class with 20 students	K	2	10:1	Y
Redwood Class with 17 students	1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup>	4	4:1	Y
Grey Whale Class with 15 students	1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup>	4	4:1	Y
Golden Trout Class with 19 students	1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup>	4	5:1	Y
Garibaldi Class with 20 students	1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup>	4	5:1	Y
Golden Nugget Class with 19 students	1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup>	4	5:1	Y
Grizzly Bear Class with 18 students	1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup>	4	5:1	Y
Coloma Class with 25 students	4 <sup>th</sup> /5 <sup>th</sup> /6 <sup>th</sup>	5	5:1	Y
Eureka Class with 24 students	4 <sup>th</sup> /5 <sup>th</sup> /6 <sup>th</sup>	5	5:1	Y
Calico Class with 20 students	4 <sup>th</sup> /5 <sup>th</sup> /6 <sup>th</sup>	4	5:1	Y
Saber Toothed Cat Class with 10 students	7 <sup>th</sup> /8 <sup>th</sup>	3	3:1	Y
Tech Cart supplements 5:1 ratio	K-8 <sup>th</sup>	4	N/A	N/A

California Montessori Project Technology Plan – 2011-2014

**Carmichael Campus**

<b>Student Access To Technology In:</b>	<b>Grade Levels</b>	<b>Number of Computer Workstations</b>	<b>Student to Computer Ratio</b>	<b>Student to Computer Ratio w/technology cart</b>	<b>Before/ After School</b>
Poppy Class with 31 students	K/1 <sup>st</sup>	4	8:1		Y
Tiger Lily Class with 20 students	K	2	10:1		Y
Gardenia Class with 20 students	K/1 <sup>st</sup>	4	5:1		Y
Sunflower Class with 36 students	2 <sup>nd</sup> /3 <sup>rd</sup>	6	6:1		Y
Orchid Class with 30 students	2 <sup>nd</sup> /3 <sup>rd</sup>	6	5:1		Y
Camellia Class with 20 students	K	3	7:1		Y
Azalea Class with 24 students	4 <sup>th</sup> /5 <sup>th</sup>	5	5:1		Y
Magnolia Class with 20 students	2 <sup>nd</sup> /3 <sup>rd</sup>	4	5:1		Y
Lotus Class with 16 students	4 <sup>th</sup>	4	4:1		Y
Freesia Class with 27 students	5 <sup>th</sup> /6 <sup>th</sup>	5	5:1		Y
Rose Class with 22 students	5 <sup>th</sup> /6 <sup>th</sup>	5	4:1		Y
Iris Class with 36 student	7 <sup>th</sup> /8 <sup>th</sup>	6	6:1		Y
Special Ed Resource Room Serving 24 students throughout the day	K-8	2	12:1		N
Tech Cart supplements 5:1 ratio	K-8	7	N/A	N/A	N

**Elk Grove Campus**

<b>Student Access To Technology In:</b>	<b>Grade Levels</b>	<b>Number of Computer Workstations</b>	<b>Student to Computer Ratio</b>	<b>Student to Computer Ratio w/technology cart</b>	<b>Before/ After School</b>
Diamond Class with 26 students	K	4	7:1	N/A	Y
Sapphire Class with 40 students	K/1 <sup>st</sup>	7	6:1	N/A	Y
Topaz Class with 38 students	1 <sup>st</sup> /2 <sup>nd</sup>	7	5:1	N/A	Y
Garnet Class with 37 students	2 <sup>nd</sup> /3 <sup>rd</sup>	8	6:1	N/A	Y
Aquamarine Class with 36 students	2 <sup>nd</sup> /3 <sup>rd</sup>	10	4:1	N/A	Y
Ruby Class with 21 students	4 <sup>th</sup> /5 <sup>th</sup>	6	4:1	2:1	Y
Emerald Class with 24 students	4 <sup>th</sup> /5 <sup>th</sup>	5	5:1	2:1	Y
Onyx Class with 24 students	4 <sup>th</sup> /5 <sup>th</sup>	5	5:1	2:1	Y
Amethyst Class with 26 students	6 <sup>th</sup>	6	4:1	2:1	Y
Jade Class with 22 students	7 <sup>th</sup> /8 <sup>th</sup>	9	2:1	1:1	Y
Tech Cart supplements 5:1 ratio	K-8	8	N/A	N/A	N

Elk Grove has chosen to use the Tech Cart for grades 4<sup>th</sup> -8<sup>th</sup> and Special Education only.

**Orangevale Campus**

<b>Student Access To Technology In:</b>	<b>Grade Levels</b>	<b>Number of Computer Workstations</b>	<b>Student to Computer Ratio</b>	<b>Before/ After School</b>
Crater Lake Canyon Class with 20 students	K	2	10:1	Y
Yellowstone Class with 20 students	K	2	10:1	Y
Kings Canyon Class with 20 students	K/1 <sup>st</sup>	2	10:1	Y
Yosemite Class with 20 students	1 <sup>st</sup> /2 <sup>nd</sup>	2	10:1	Y
Joshua Tree Class with 20 students	1 <sup>st</sup> /2 <sup>nd</sup>	2	10:1	Y
Lassen Class with 20 students	2 <sup>nd</sup> /3 <sup>rd</sup>	3	7:1	Y
Chaco Class with 23 students	4 <sup>th</sup> /5 <sup>th</sup>	4	6:1	Y
Tech Cart supplements 5:1 ratio	K-8 <sup>th</sup>	4	N/A	N/A

**Shingle Springs Campus**

<b>Student Access To Technology In:</b>	<b>Grade Levels</b>	<b>Number of Computer Workstations</b>	<b>Student to Computer Ratio</b>	<b>Student to Computer Ratio w/technology cart</b>	<b>Before/ After School</b>
Pine Class with 18 students	K	2	9:1	3:1	Y
Mimosa Class with 37 students	K/1 <sup>st</sup>	7	5:1	3:1	Y
Cedar Class with 37 students	K/1 <sup>st</sup>	7	5:1	3:1	Y
Laurel Class with 29 students	2 <sup>nd</sup> /3 <sup>rd</sup>	7	4:1	2:1	Y
Willow Class with 29 students	2 <sup>nd</sup> /3 <sup>rd</sup>	7	4:1	2:1	Y
Aspen Class with 30 students	3 <sup>rd</sup> /4 <sup>th</sup>	7	4:1	2:1	Y
Fig Class with 26 students	4 <sup>th</sup> /5 <sup>th</sup>	7	4:1	2:1	Y
Eucalyptus Class with 26 students	4 <sup>th</sup> /5 <sup>th</sup>	7	4:1	2:1	Y
Oak Class with 25 students	4 <sup>th</sup> /5 <sup>th</sup>	7	4:1	2:1	Y
Birch Class with 36 students	6 <sup>th</sup>	10	4:1	3:1	Y
Sequoia Class with 59 students	7 <sup>th</sup> /8 <sup>th</sup>	22	3:1	2:1	Y
Tech Cart supplements 5:1 ratio	K-8	12	N/A	N/A	N
Special Ed Resource Room Serving 30 students throughout the day	K-8	2	2:1	3:1	N

Shingle Springs has chosen to use the Tech Cart for all grades.

**3.b. Description of California Montessori Project’s current use of hardware and software to support teaching and learning.**

All California Montessori Project classrooms have networked computers installed (see the charts above). The computers are predominantly used for Internet research, keyboarding instruction, MS Office tools (Word, Excel, Power Point and Access), and online applications such as Accelerated Reader, Accelerated Math, Rosetta Stone (Foreign Language) and K to the 8<sup>th</sup>. As each classroom has computer devices, each student has the option of using the computers as needed throughout the work day, as their classroom work requires. Many of the classrooms utilize their computers for curriculum enhancement such as Math intervention programs, reading comprehension support, technology instruction, foreign language education, digital photography instruction, and Web Research. All campuses subscribe to California Learns, an instructional resource portal that provides teachers and

students with online access to media applications (video streaming), curriculum resources, reference materials (Worldbook), technology tools and tutorials, and other electronic resources to enhance teaching and learning.

The computers provide the students access to Internet resources and a variety of curriculum related software programs specifically designed for student use.

California Montessori Project’s K-8 curriculum is fully aligned to California State Standards in English/Language Arts, Math, Science, and History/Social Science. California Montessori Project has developed quarterly assessments for testing student progress in meeting the standards in language arts and mathematics. Most teachers currently monitor student progress via manual recordkeeping books. Several upper elementary classrooms use GradeBook Wizard to record student work completion and grades, which information is then made available to students and their guardians through a secure online service. All Middle School classrooms are using the Aeries ABI online application to record student work completion and grades, which information is then made available to students and their guardians through a secure online service.

**3.c. Summary of the California Montessori Project’s curricular goals that are supported by this Technology Plan.**

The use of technology within the Montessori curriculum supports many of the underlying principles of Montessori philosophy. The principles of preparation for life, individualized instruction and self-correcting materials are all embodied in the use of technology in the classroom. The goals represented here all support these desired outcomes of the educational process of the California Montessori Project. The table below notes the California Montessori Project’s curricular and academic goals as noted in a variety of documents. Data from CST results is also indicated:

<b>Document</b>	<b>Curricular/Technology Support</b>
Charter Petition	The mission of the California Montessori Project is to offer an environment which has the tools, programs, resources, and support to enable students to become educated to high international academic standards and to develop themselves to their fullest capacity as competent, happy, productive individuals, family members, workers, and contributors to a better society and a peaceful world.
Charter Petition	As a Citizen of the World, the student understands the basis of our constitutional democracy, the rights and responsibilities of all, and stays informed on important political, social, and environmental issues. The student is informed regarding other political, social, and cultural systems and seeks to understand and co-exist peacefully.
Charter Petition	As a Member of An Increasingly Technical and Information Based World, the student is competent and comfortable using a wide variety of technology as an integral part of life and is open to embracing new alternatives as they become available.
Montessori Curriculum Guide	The Montessori Curriculum Guide aligns the Montessori Curriculum to the California State Standards and provides a monthly breakdown of classroom lessons. The Montessori Curriculum Guide references the

	album: “Computer Education for the Montessori Elementary Teacher”.
--	--

As part of our WASC accreditation, we wrote a set of overarching goals for our students. These goals are referred to as “ESLRs” or “Expected Student Learning Results”. We are very proud of our ESLRs and want to share them with you:

**California Montessori Project Students:**

- Make **Safe, Respectful, and Responsible** choices for themselves and empower others to do so as well.
- Are **Montessori Learners** who work independently, demonstrate initiative, utilize the power of concentration, think critically, and are lifelong learners.
- Are Ambassadors of **Grace and Courtesy** who celebrate the diversity in our global community.
- Are **Agents of Change** who have a strong sense of community, are socially responsible, connected to their environment, advocate for themselves and others, and are empowered to be problem solvers.

<b>DATA Source</b>	<b>Area of Strength</b>	<b>Area for Improvement</b>
STAR Testing Results	Word Analysis & Vocabulary Development	Reading Comprehension
STAR Testing Results	Statistics, Data Analysis, & Probability	Operations & Problem Solving
Albanesi Grade Achievement Testing	Math Concepts	Math Fluency
Albanesi Grade Achievement Testing	Decoding Skills, Vocabulary	Reading Comprehension
San Diego Quick Reading Assessments	Decoding, phonemic awareness	Comprehension, Fluency

The above data and curricular goals matrix supports the focus of the California Montessori Project Technology Plan on the use of technology to support the remediation and enrichment of basic mathematics and reading skills for students in grades K through 8<sup>th</sup> grades. Annual assessments from STAR Reading and STAR Math will provide a benchmark for each student.

This process will be replicated as needed for years 2 and 3 based on current data.

**3.d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting California Montessori Project’s curriculum goals.**

**Introduction**

Attention is being focused on repetition of Language Art (reading, reading comprehension and vocabulary) and Mathematics for those students who need extra independent practice in the classroom

setting. The goal is that these students are able to receive individualized practice without being dependent on the teacher’s time and attention. The expectation is that students in grades K – 8 will receive ample instruction in these basic skills through the use of individualized Montessori lessons and hands-on materials. Reinforcement of technology to empower students’ productivity and ability to demonstrate their mastery of content in a variety of formats will be used.

**3.d.1 Goal: Curriculum Online Application Tools – Technology will be integrated into the classroom to support online application strategies for student learning.**

**Objective: To provide the necessary tools and alternatives to successfully implement intervention & collaborative methods of remediation / enrichment in the areas of language arts and mathematics.**

**BENCHMARKS:**

September 2011	Committee will be appointed to research & select <u>intervention tools</u> for language arts and mathematics remediation and enrichment
September 2012	Committee will be appointed to research & select teacher <u>collaborative tools</u> for language arts and mathematics remediation and enrichment
September 2012	Committee will be appointed to research & select <u>study guides</u> for language arts and mathematics remediation and enrichment
September 2012	Committee will be appointed to research & select <u>homework alternatives</u> for language arts and mathematics remediation and enrichment
September 2013	Committee will be appointed to research & select <u>online tutorials</u> for language arts and mathematics remediation and enrichment
September 2013	Committee will be appointed to research & select <u>grade book &amp; report card tools</u> for language arts and mathematics remediation and enrichment

<b>Goal/Objective to improve teaching and learning</b>	<b>Responsible Position</b>	<b>Timeline</b>	<b>Monitoring and Evaluation activities</b>
Committee will be appointed to research & select intervention tools for language arts and mathematics remediation and enrichment	Committee / Tech Mentors / Ed Specialists	November 2011	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal’s Round Table (RT)
Software review / approval.	Principal RT / Tech Advisor	December 2011	PO and invoices.
Software purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2012	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected software.	Tech Advisor / Tech Mentor	January- March 2012	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Students begin utilization of software in K through 8 <sup>th</sup> grade classrooms.	Tech Advisor / Tech Mentor	February 2012	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal’s RT
Evaluate software effectiveness based on informal student assessments in	Tech Advisor / classroom	Quarterly Per	Review with resources involved, review at the regularly scheduled curriculum

California Montessori Project Technology Plan – 2011-2014

<b>Goal/Objective to improve teaching and learning</b>	<b>Responsible Position</b>	<b>Timeline</b>	<b>Monitoring and Evaluation activities</b>
language arts and mathematics basic skills.	teacher	academic year	teachers meeting and/or the regularly scheduled Principal's RT
Committee will be appointed to research & select teacher collaborative tools for language arts and mathematics remediation and enrichment	Committee / Tech Mentors / Ed Specialists	November 2012	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Software review / approval.	Principal RT / Tech Advisor	December 2012	PO and invoices.
Software purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2013	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected software.	Tech Advisor / Tech Mentor	January-March 2013	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Students begin utilization of software in K through 8 <sup>th</sup> grade classrooms.	Tech Advisor / Tech Mentor	February 2013	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Evaluate software effectiveness based on informal student assessments in language arts and mathematics basic skills.	Tech Advisor / classroom teacher	Quarterly Per academic year	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Committee will be appointed to research & select study guides for language arts and mathematics remediation and enrichment	Committee / Tech Mentors / Ed Specialists	November 2012	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Software review / approval.	Principal RT / Tech Advisor	December 2012	PO and invoices.
Software purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2013	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected software.	Tech Advisor / Tech Mentor	January-March 2014	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Students begin utilization of software in K through 8 <sup>th</sup> grade classrooms.	Tech Advisor / Tech Mentor	February 2014	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Evaluate software effectiveness based on informal student assessments in language arts and mathematics basic skills.	Tech Advisor / classroom teacher	Quarterly Per academic year	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Committee will be appointed to research & select homework alternatives for language arts and mathematics remediation and enrichment	Committee / Tech Mentors / Ed Specialists	November 2012	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Software review / approval.	Principal RT / Tech Advisor	December 2012	PO and invoices.

California Montessori Project Technology Plan – 2011-2014

<b>Goal/Objective to improve teaching and learning</b>	<b>Responsible Position</b>	<b>Timeline</b>	<b>Monitoring and Evaluation activities</b>
Software purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2013	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected software.	Tech Advisor / Tech Mentor	January- March 2013	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Students begin utilization of software in K through 8 <sup>th</sup> grade classrooms.	Tech Advisor / Tech Mentor	February 2013	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Evaluate software effectiveness based on informal student assessments in language arts and mathematics basic skills.	Tech Advisor / classroom teacher	Quarterly Per academic year	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Committee will be appointed to research & select online tutorials for language arts and mathematics remediation and enrichment	Committee / Tech Mentors / Ed Specialists	November 2013	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Software review / approval.	Principal RT / Tech Advisor	December 2013	PO and invoices.
Software purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2014	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected software.	Tech Advisor / Tech Mentor	January- March 2014	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Students begin utilization of software in K through 8 <sup>th</sup> grade classrooms.	Tech Advisor / Tech Mentor	February 2014	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Evaluate software effectiveness based on informal student assessments in language arts and mathematics basic skills.	Tech Advisor / classroom teacher	Quarterly Per academic year	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Committee will be appointed to research & select grade book & report card tools for language arts and mathematics remediation and enrichment	Committee / Tech Mentors / Ed Specialists	November 2013	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Software review / approval.	Principal RT / Tech Advisor	December 2013	PO and invoices.
Software purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2014	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected software.	Tech Advisor / Tech Mentor	January- March 2014	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Students begin utilization of software in K through 8 <sup>th</sup> grade classrooms.	Tech Advisor / Tech Mentor	February 2014	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT

California Montessori Project Technology Plan – 2011-2014

Goal/Objective to improve teaching and learning	Responsible Position	Timeline	Monitoring and Evaluation activities
Evaluate software effectiveness based on informal student assessments in language arts and mathematics basic skills.	Tech Advisor / classroom teacher	Quarterly Per academic year	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT

**3.d.2 Goal: Curriculum Presentation Tools – Technology will be integrated into the classroom to support presentation strategies for student learning.**

**Objective: To ensure that all classrooms are equipped with appropriate grade-level curriculum media technology to support language arts and mathematics.**

**BENCHMARKS:**

September 2011	Committee will be appointed to research & select LCD projectors for each classroom
September 2011	Committee will be appointed to research & select 'on demand' digital lessons / screen casting software
September 2012	Committee will be appointed to research & select white boards for all classrooms where appropriate
September 2013	Committee will be appointed to research & select document readers

Goal/Objective to improve teaching and learning	Responsible Position	Timeline	Monitoring and Evaluation activities
Committee appointed to research & select LCD projectors for each classroom which supports state approved language arts and mathematics remediation and enrichment programs.	Committee / Tech Mentors / Ed Specialists	November 2011	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Hardware review and approved.	Principal RT / Tech Advisor	December 2011	PO and invoices.
Hardware purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2012	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected hardware.	Tech Advisor / Tech Mentor	January – March 2012	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Evaluate hardware effectiveness based on informal teacher surveys	Campus Admin / classroom teacher	April 2012	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Committee appointed to research & select an 'on demand' digital lessons / screen casting software which supports state approved language arts and mathematics remediation and enrichment programs.	Committee / Tech Mentors / Ed Specialists	November 2011	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Hardware review and approved.	Principal RT / Tech Advisor	December 2011	PO and invoices.
Hardware purchased and installed	Campus Admin /	January	PO and work orders for installation

California Montessori Project Technology Plan – 2011-2014

<b>Goal/Objective to improve teaching and learning</b>	<b>Responsible Position</b>	<b>Timeline</b>	<b>Monitoring and Evaluation activities</b>
	Tech Advisor / Tech Mentors	2012	
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected hardware.	Tech Advisor / Tech Mentor	January – March 2012	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Evaluate hardware effectiveness based on informal teacher surveys	Campus Admin / classroom teacher	April 2012	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Committee appointed to research & select white boards for K through 8 <sup>th</sup> grade classrooms which supports state approved language arts and mathematics remediation and enrichment programs.	Committee / Tech Mentors / Ed Specialists	November 2012	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Hardware review and approved.	Principal RT / Tech Advisor	December 2012	PO and invoices.
Hardware purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2013	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected hardware.	Tech Advisor / Tech Mentor	January – March 2013	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Evaluate hardware effectiveness based on informal teacher surveys	Campus Admin / classroom teacher	April 2013	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT
Committee appointed to research & select a document readers which supports state approved language arts and mathematics remediation and enrichment programs.	Committee / Tech Mentors / Ed Specialists	November 2013	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's Round Table (RT)
Hardware review and approved.	Principal RT / Tech Advisor	December 2013	PO and invoices.
Hardware purchased and installed	Campus Admin / Tech Advisor / Tech Mentors	January 2014	PO and work orders for installation
Staff development is provided for K through 8 <sup>th</sup> grade teachers in use of selected hardware.	Tech Advisor / Tech Mentor	January – March 2014	Sign in sheets, workshop evaluations, minutes of meetings for staff to discuss new software integration
Evaluate hardware effectiveness based on informal teacher surveys	Campus Admin / classroom teacher	April 2014	Review with resources involved, review at the regularly scheduled curriculum teachers meeting and/or the regularly scheduled Principal's RT

**3.d.3 Goal: Curriculum Assessment and Intervention Tools – Technology will be integrated into the classroom to support assessment and intervention strategies for student learning.**

Teachers are administering a variety of assessments and conducting observations. These assessments and observations are codified and tracked using teacher-created spreadsheets which are reviewed by

California Montessori Project Technology Plan – 2011-2014

the teachers, the grade level mentors, the Educational Specialist and the Campus Principal. This process is cumbersome and does not facilitate production of data to support and track student learning over longer periods of time.

Individual students’ progress in regular education programs and intervention programs will be measured through the various assessments. These results will be compared and analyzed to determine skill mastery, effectiveness and the need for general and specific interventions. As the Assessment Focus Group identifies and recommends new intervention programs which affect the school’s budget, a proposal will be presented to the CMP Round Table and the CMP Governing Board for review and approval.

**Objective: Student learning will be enhanced by identifying specific areas of strength and weakness through tracking and analysis of student assessments and intervention strategies, as they relate to Montessori and California Standards and Benchmarks.**

**BENCHMARKS:**

July. 2011	Research assessments and intervention tracking strategies for language art and mathematics in Aeries.
January 2012	Research assessments and intervention tracking strategies from various vendors
June 2013	Develop individual student intervention strategies.
July 2013	Implement third priority assessment data tracking fields

Goal/Objective to improve teaching and learning	Responsible Position	Timeline	Monitoring and Evaluation activities
Research assessments and intervention tracking strategies for language arts and mathematics in Aeries	<ul style="list-style-type: none"> <li>• Assessment Focus Group</li> <li>• Educational Specialist</li> <li>• Special Education Personnel</li> <li>• Grade Level Mentors</li> </ul>	July 2011	Aeries product evaluation
Analyze and prioritize data fields for data entry and/or data downloads	<ul style="list-style-type: none"> <li>• Assessment Focus Group</li> <li>• Educational Specialist</li> <li>• Special Education Personnel</li> <li>• Grade Level Mentors</li> </ul>	August 2011	Data Recommendation Report
Define first prioritized Aeries fields for data gathering	<ul style="list-style-type: none"> <li>• CMP Data Management Coordinator</li> <li>• Aeries</li> </ul>	August 2011	Field Definition Status from Aeries personnel

California Montessori Project Technology Plan – 2011-2014

Goal/Objective to improve teaching and learning	Responsible Position	Timeline	Monitoring and Evaluation activities
	personnel		
Develop training program for entry and tracking of data fields for staff	<ul style="list-style-type: none"> <li>• CMP Data Management Coordinator</li> <li>• Educational Specialist</li> </ul>	September 2011	Progress Report at team meetings Progress Report to Principal
Train teachers and staff on utilization of selected Aeries data tracking fields	<ul style="list-style-type: none"> <li>• CMP Data Management Coordinator</li> <li>• Assessment Focus Group</li> <li>• Educational Specialist</li> </ul>	September 2011	Training outlines Progress Report to Principal
Conduct assessments and input assessment data into Aeries	<ul style="list-style-type: none"> <li>• Teachers</li> <li>• Teacher's Assistants</li> </ul>	October 2011	Verification of data entered
Based on assessment data, develop individual student intervention strategies	<ul style="list-style-type: none"> <li>• Teachers</li> <li>• Grade Level Mentors</li> <li>• Educational Specialist</li> </ul>	October 2011 and ongoing	Response to Intervention measurements Assessments
Assess students and input mid-year data	<ul style="list-style-type: none"> <li>• Teachers</li> <li>• Teacher's Assistants</li> </ul>	January 2012	Verification of data entered
Based on assessment data, develop individual student intervention strategies	<ul style="list-style-type: none"> <li>• Teachers</li> <li>• Grade Level Mentors</li> <li>• Educational Specialist</li> </ul>	January 2012 and ongoing	Response to Intervention measurements Assessments
Assess students and input end of year assessment data	<ul style="list-style-type: none"> <li>• Teachers</li> <li>• Teacher's Assistants</li> </ul>	May 2012	Verification of data entered
Based on assessment data, recommend modified individual student intervention strategies	<ul style="list-style-type: none"> <li>• Teachers</li> <li>• Grade Level Mentors</li> <li>• Educational Specialist</li> </ul>	May 2012	Response to Intervention measurements Assessments
Evaluate student learning results based on assessment and intervention data	<ul style="list-style-type: none"> <li>• Teachers</li> <li>• Grade Level Mentors</li> <li>• Educational Specialist</li> </ul>	June – August 2012	Response to Intervention Reports Assessment Reports
Research assessments and intervention tracking strategies from various vendors	<ul style="list-style-type: none"> <li>• Assessment Focus Group</li> <li>• Educational Specialist</li> <li>• SPED Personnel</li> <li>• Grade Level Mentors</li> </ul>	January 2012	Vendor product evaluation
Evaluate Aeries strategies vs. other	<ul style="list-style-type: none"> <li>• Assessment</li> </ul>	July 2012	Written proposal submitted to Principal

California Montessori Project Technology Plan – 2011-2014

<b>Goal/Objective to improve teaching and learning</b>	<b>Responsible Position</b>	<b>Timeline</b>	<b>Monitoring and Evaluation activities</b>
vendor strategies and prepare recommendation proposal	<ul style="list-style-type: none"> <li>Focus Group</li> <li>Educational Specialist</li> </ul>		
Implement selected data management system and transport Aeries information as needed	<ul style="list-style-type: none"> <li>CMP Data Management Staff</li> <li>Educational Specialist</li> </ul>	August 2012	Availability of data management system
Train teachers on Aeries or vendor system for second prioritized data fields	<ul style="list-style-type: none"> <li>CMP Data Management Staff</li> <li>Educational Specialist</li> </ul>	August 2012	Staff feedback during training
Conduct assessments and input assessment data into Aeries	<ul style="list-style-type: none"> <li>Teachers</li> <li>Teacher's Assistants</li> </ul>	October 2012	Verification of data entered
Based on assessment data, develop individual student intervention strategies	<ul style="list-style-type: none"> <li>Teachers</li> <li>Grade Level Mentors</li> <li>Educational Specialist</li> </ul>	October 2012 and ongoing	Response to Intervention measurements Assessments
Assess students and input mid-year data	<ul style="list-style-type: none"> <li>Teachers</li> <li>Teacher's Assistants</li> </ul>	January 2013	Verification of data entered
Based on assessment data, develop individual student intervention strategies	<ul style="list-style-type: none"> <li>Teachers</li> <li>Grade Level Mentors</li> <li>Educational Specialist</li> </ul>	January 2013 and ongoing	Response to Intervention measurements Assessments
Assess students and input end of year assessment data	<ul style="list-style-type: none"> <li>Teachers</li> <li>Teacher's Assistants</li> </ul>	May 2013	Verification of data entered
Based on assessment data, recommend modified individual student intervention strategies	<ul style="list-style-type: none"> <li>Teachers</li> <li>Grade Level Mentors</li> <li>Educational Specialist</li> </ul>	May 2013	Response to Intervention measurements Assessments
Evaluate student learning results based on two year assessment and intervention data	<ul style="list-style-type: none"> <li>Teachers</li> <li>Grade Level Mentors</li> <li>Educational Specialist</li> </ul>	June – August 2013	Response to Intervention Reports Assessment Reports
Implement third priority assessment data tracking fields	<ul style="list-style-type: none"> <li>Assessment Focus Group</li> <li>Teachers</li> <li>Grade Level Mentors</li> <li>Educational Specialist</li> </ul>	July 2013-June 2014	Assessment Reports Data Management System Reports

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

The use of information literacy skills in a research process needs to be implemented across the grade levels to enhance students’ safe and effective use of the Internet for research purposes. The California Montessori Project currently has a comprehensive and cohesive plan for teaching these skills. As more computer time becomes available to students, they will have greater access to the Internet for research purposes. It is the school’s intent to educate the students in the proper use of Internet research using information literacy skills.

**3.e.1 Goal: California Montessori Project students will understand and apply information literacy skills to increase their use of Internet access as well as Internet resources for research in the core content areas.**

**Objective: Students will learn about jobs that require computers through visiting several web sites and conducting search queries. Methods of searching are reviewed as well as how to copy and paste information from web sites that have copyright free information.**

**BENCHMARKS**

August 2011	Provide all students the California Montessori Project Technology Use & Responsibility agreement.
September 2011 and annually thereafter	Provide all students with an Internet Safety presentation, Instruction for Identifying Credible web sites and teach comprehensive / essential computer and Internet skills.

**Introduction**

Today’s culture demands that students be proficient in basic computer skills. The Montessori philosophy specifically states that the purpose of education is preparation for life. With this understanding, the California Montessori Project emphatically endorses the adoption and implementation of a grade level continuum of basic computer skills for its students.

Based on the technological needs of each classroom, creating an onsite technical support infrastructure based out of the middle school classrooms is key to the success of all curriculum based technology activities. Specific criteria has been developed to identify students who wish to submit their interest in becoming a California Montessori information technology (CMit), technician. These CMit technicians will be responsible to assist the Campus Tech Mentor with on campus duties. With specialized training from the Campus Tech Mentor, roll out could be as soon as October of each year.

**3.e.2 Goal: California Montessori Project will incorporate technology skills as a mandatory educational component of its curriculum.**

**Objective: Through the use of the K to the 8<sup>th</sup> application, all 4<sup>th</sup> – 8<sup>th</sup> grade students will complete the grade-level progressive lessons. K – 3<sup>rd</sup> grade students will be provided one-on-one and small group technology lessons appropriate for their curriculum requirements.**

California Montessori Project Technology Plan – 2011-2014

**BENCHMARKS**

**By September 2011**

- Incorporate a technology enhanced learning program to 100 % of 4<sup>th</sup> through 8<sup>th</sup> grade classrooms.
- Incorporate a technology enhanced learning program to 50% of 2<sup>nd</sup> & 3<sup>rd</sup> grade classrooms.
- Incorporate a technology enhanced learning program to 50% of K & 1<sup>st</sup> grade classrooms.

**By October 2011**

- Implement CMit, an onsite, student run, technical support (grades 7<sup>th</sup> -8<sup>th</sup>)

<b>Goal/Objective to improve teaching and learning</b>	<b>Responsible Position</b>	<b>Timeline</b>	<b>Monitoring and Evaluation activities</b>
Provide Computer Basics training to K-1 <sup>st</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Students will be provided one-on-one and small group technology lessons appropriate for their curriculum requirements
Provide Computer Basics training to 2 <sup>nd</sup> -3 <sup>rd</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Students will be provided one-on-one and small group technology lessons appropriate for their curriculum requirements
Provide Computer Basics training to 4 <sup>th</sup> to 8 <sup>th</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Curriculum based activities / lessons from K to 8 as assigned by benchmarks created for 4 <sup>th</sup> through 8 <sup>th</sup> grade classrooms or the classroom Teacher
Provide Trouble Shooting training to 4 <sup>th</sup> to 8 <sup>th</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Curriculum based activities / lessons from K to 8 as assigned by benchmarks created for 4 <sup>th</sup> through 8 <sup>th</sup> grade classrooms or the classroom Teacher
Provide Networking training to 7 <sup>th</sup> to 8 <sup>th</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Curriculum based activities / lessons from K to 8 as assigned by benchmarks created for 7 <sup>th</sup> through 8 <sup>th</sup> grade classrooms or the classroom Teacher
Provide Social, Ethical, Human issues training to 4 <sup>th</sup> to 8 <sup>th</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Curriculum based activities / lessons from K to 8 as assigned by benchmarks created for 4 <sup>th</sup> through 8 <sup>th</sup> grade classrooms or the classroom Teacher
Provide Internet/Intranet training and research skills to 4 <sup>th</sup> to 8 <sup>th</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Curriculum based activities / lessons from K to 8 as assigned by benchmarks created for 4 <sup>th</sup> through 8 <sup>th</sup> grade classrooms or the classroom Teacher
Provide CyberSafety training to 4 <sup>th</sup> to 8 <sup>th</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Curriculum based activities / lessons from K to 8 as assigned by benchmarks created for 4 <sup>th</sup> through 8 <sup>th</sup> grade classrooms or the classroom Teacher
Provide Credible Web sites training to 4 <sup>th</sup> to 8 <sup>th</sup> grade students	Classroom teacher / Tech Mentor	Annually per academic year	Curriculum based activities / lessons from K to 8 as assigned by benchmarks created for 4 <sup>th</sup> through 8 <sup>th</sup> grade classrooms or the classroom Teacher
Identify and train interested students to help support Campus technology trouble tickets - 7 <sup>th</sup> through 8 <sup>th</sup> students	Tech Mentor / interested students	October 2011	Training to be provided by the Tech Mentor based on campus needs
The implementation steps noted above will be repeated annually with modifications as indicated by the data collected 2012 and 2013 benchmarks.			

**3.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 can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism. (AB 307).**

California Montessori Project will address the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works, including the following topics: understanding the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism (AB 307). Through the K to the 8<sup>th</sup> Power online Technology application, students in the 4<sup>th</sup> – 8<sup>th</sup> grades take a variety of Cyber courses relating to today’s challenges. Each campus is also responsible for scheduling a High Risk Crime presentation to parents / family members in the community as well as a Middle School presentation geared specifically toward awareness and protection.

**3.f. Goal:** Students will receive grade level appropriate instruction about information literacy, copyright, and the appropriate and ethical use of information technology.

**Objective:** Students will report they have received instruction and 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.

Implementation Plan				
Activity	Timeline	Person(s) Responsible	Monitoring & Evaluation	Evaluation Instrument
All students K-8 will receive grade level appropriate instruction on so that students can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism.	September annually thereafter	Tech Mentors / classroom teachers	iPrism content filter	Classroom Teacher oversight, Daily iPrism reports

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

**3.g.1 Goal statement:** All students in 4<sup>th</sup> – 8<sup>th</sup> grades will receive grade-level appropriate instruction in Internet safety, including online privacy and strategies to avoid online predators through K to the 8<sup>th</sup> Power and in class presentations.

<b>Implementation Plan</b>				
Activity	Timeline	Person(s) Responsible	Monitoring & Evaluation	Evaluation Instrument
Provide Computer Basics training to K – 3 <sup>rd</sup> grade students	Annually per academic year	Classroom teacher / Tech Mentor	Students will be provided one-on-one and small group technology lessons appropriate for their curriculum requirements	Classroom Teacher oversight, Daily iPrism reports
All students, parents and staff sign Acceptable Use Policy (AUP) annually as appropriate	August Annually	Campus Admin / staff	Enrollment / reenrollment packet	Signed AUP's on file
Assign appropriate K to 8 lessons regarding Internet safety, online privacy and social networking responsibilities	August Annually	Tech Mentor / classroom teachers	Lesson plans and other curriculum documents; observation;	K to 8 gradebook
Present a High Tech Crime overview to students in K-8 which covers safety issues for computer systems, emails, anti-virus programs, online predators, piracy, Facebook and other social networking sites	December Annually	Tech Mentor / County High Tech Crime Unit / Department of Justice	Classroom newsletters, website	Sign-in sheets
Staff and administration review AUP and Continuum for appropriate revisions and recommendations go to the Governing Board for approval.	Ongoing basis	Campus Admin	Board minutes, notes of meeting, updated AUP and continuum, modify as needed.	Board minutes

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

All students and teachers at the California Montessori Project will have safe and secure access to computers and related technology. California Montessori Project has strived to achieve a 5:1 student to computer ratio in all classrooms through the purchase of computers for every classroom and a mobile technology lab for each campus. Teachers will also be provided with access to a laptop, LCD projector, and white board.

Student needs regarding adaptive technology are assessed at time of enrollment and the district works with the local SELPA or other appropriate agencies to provide appropriate access to technology. English Language Learners are supported with technology using the Rosetta Stone English Language software. Students are provided with an access to an individual account and instruction from their classroom teacher on the use of this program to directly support English language skills.

**3.h.1. Goal: All students and teachers will have access to computers and presentation tools.**

**Objective: By June of 2014, all classrooms will have a 5:1 Student to Computer ratio and all campuses will have a mobile technology lab. In addition, teachers will have adequate access to a laptop, LCD projector, and white board.**

**Benchmarks**

**By June 2012:**

- 90% of classrooms will have a student to computer ratio of 5:1
- 80% of campuses will have a mobile technology cart
- 80% of teachers will have adequate access to a laptop computer
- 60% of teachers will have adequate access to an LCD projector
- 60% of teachers will have adequate access to a white board

**By June 2013:**

- 100% of classrooms will have a student to computer ratio of 5:1
- 100% of campuses will have a mobile technology cart
- 90% of teachers will have adequate access to a laptop computer
- 80% of teachers will have adequate access to an LCD projector
- 80% of teachers will have adequate access to a white board

**By June 2014:**

- 100% of classrooms will have a student to computer ratio of 5:1
- 100% of campuses will have a mobile technology cart
- 100% of teachers will have adequate access to a laptop computer
- 100% of teachers will have adequate access to an LCD projector
- 90% of teachers will have adequate access to a white board

**BENCHMARKS/IMPLEMENTATION:**

Aug. '11 Baseline	Evaluate each classroom headcount at the beginning of the year and determine the ratio of students to computers and order additional devices to reach the 90% goal. Evaluate campus laptop carts and order additional carts and devices as necessary to reach the 80% goal. Evaluate adequate teacher access to laptop computers and order additional devices as necessary to reach the 80% goal. Evaluate adequate teacher access to LCD projectors and white boards and order additional devices as necessary to reach the 60% goal.
March '12 and Annually Thereafter	Evaluate proposed classroom headcounts for the following year and determine the ratio of students to computers. Survey staff and determine need for adequate access to laptop computers, LCD projectors, and white boards for the following year.
April '12 and Annually Thereafter	Budget to reach goal of 5:1 student to computer ratio for the following year. Budget to reach goal of 100% laptop carts at each campus for the following year. Budget to reach goal of adequate teacher access to laptop computers, LCD projectors and white boards for the following year.

California Montessori Project Technology Plan – 2011-2014

July '12 and Annually Thereafter	Purchase the recommended computers, mobile carts, laptops, LCD projectors, and white boards per available fiscal resources.
July-August '12 and Annually Thereafter	Receive, set-up and install new hardware for staff and student use.
Aug.-Sept. '12 and Annually Thereafter	Provide intensive staff development for use of new hardware
Repeat steps above to ensure completion of benchmarks as noted. Modifications will be made based on data from California School Technology Survey, California Montessori Project inventories, and staff input as to curricular needs.	

Monitoring process and tools: The campus budget and the campus’s ability to acquire the appropriate number of devices necessary to obtain the 5:1 ratio, will dictate each benchmark above. Annually, in conjunction with the budget development process, California Montessori Project will complete the California School Technology Survey between January and March. The Technology Advisor will review the data in light of curriculum needs, staff input and the availability of fiscal resources. By June annually, the ability of California Montessori Project to purchase the hardware noted above and /or additional technology resources will be determined and equipment will be purchased, installed and staff trained prior to the start of the following academic year. This process will be replicated as needed for years 2 and 3 based on current data.

**3.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.**

Student records are kept within the Aeries Student Information System which is beginning to integrate with a number of different online applications for student assessments as well as creating data fields internally for data collection.

Renaissance Learning applications installed at California Montessori Project provide teachers with assessments in Language Arts and Mathematics for students in grades K-8<sup>th</sup>.

LinkIt is an online system that is used for teachers and administrators to create student assessments, aligned to California State standards, which in turn will be scored and reports generated for tracking student performance. The LinkIt team is in the process of uploading the CST released questions (found online at the California Department of Education) in all subjects for students in grades 2-8 in which there is a standardized test. CMP will use LinkIt as a data analysis tool for evaluating students’ progress toward mastery of the standards as well as a means for identifying students for Response to Intervention groups, Challenge and Extension Groups (Inch Wide-Mile Deep), and STAR Power after school tutoring support.

**Objective: Student records within the Aeries database will include assessment scores from third party applications for a more efficient and effective support measure in meeting the student’s academic strengths and challenges. CMP will effectively communicating this information to our students and their families via newsletters, email, online media as necessary.**

California Montessori Project Technology Plan – 2011-2014

**BENCHMARKS:**

September '11 and Annually Thereafter	Teachers will receive training on Aeries grading system and the Aeries ABI Interface Program for evaluation and piloting at all CMP campuses.
September '11 and Annually Thereafter	Teachers will provide students with baseline assessments with continued assessments as needed.
Semi-Annually	Teachers will be provided with updates on effective strategies for the use of email, electronic newsletters, online study guides and other electronic methods to communicate effectively with parents.

<b>Goal/Objective to improve teaching and learning</b>	<b>Responsible Position</b>	<b>Timeline</b>	<b>Monitoring and Evaluation activities</b>
Review current website and compile list of requested modifications.	Tech Advisor	July, 11	Summary Report
Review current teacher configurations with Midtown Micro & request upgrade for additional email accounts.	Tech Advisor	July, 11	Implementation Plan.
Technology Advisor and Campus Administration recommend improvements to website.	Tech Advisor	July, 11	Implementation Plan.
Evaluate the need for the Technology Advisor to redesign website.	Tech Advisor	July, 11	Summary Report
Review current classroom configurations and ensure each teacher has access to a computer at school for email correspondence daily.	Tech Advisor / classroom Teachers	July / August, 11	Summary Report
Create training quick reference lists and provide training and overview to AA's at each campus.	Tech Advisor	July / August, 11	Quick reference sheets / Training
Create parent update newsletter regarding new features made available to parents and staff (ie, campus-specific links, classroom-specific homework pages, etc.).	Tech Advisor / Campus Admin.	Semiannually; July and January	Newsletter/ Summary Report
Create training quick reference lists and provide training and overview to teachers at each campus.	Tech Advisor	Semiannually; July and January	Quick reference sheets / Training
Create training quick reference materials & provide training/overview to teachers at each campus. Include guidelines regarding email etiquette & escalation process for parent issues/concerns.	Tech Advisor	Semiannually; July and January	Quick reference sheets / Training
Create links to teachers' and administrators' email accounts from webpages.	Tech Advisor	Semiannually; July and January	Summary Report
Advertise links to parents via campus newsletter.	Campus Admin / Tech Advisor	Semiannually; July and January	Newsletters
Advertise staff email addresses to parents via campus newsletters.	Campus Admin / Classroom Teachers	Semiannually; July and January	Newsletters
Monitor email usage and response times via parent correspondence and parent surveys.	Admin / classroom Teachers	Semiannually; July and January	Summary Report
Review Aeries / ABI interface Pilot Program for all teachers.	Central Admin / Campus Admin / Principals	Semiannually; July and January	Summary Report
Provide Aeries training and overview to all teachers.	Central Admin / Campus Admin / Tech Advisor	Semiannually; July and January	Training logs and Sign in sheets
Input student database records.	Campus Admin / Teachers	Semiannually; July and January	Summary Report
Provide training to students and parents.	Classroom Teachers	Semiannually; July and January	Training logs and Sign in sheets

Goal/Objective to improve teaching and learning	Responsible Position	Timeline	Monitoring and Evaluation activities
Daily input of assignment completion notes and grades.	Classroom Teachers	Semiannually; July and January	Summary Report
Summarize Aeries / ABI interface Program Results.	Central Admin/ Tech Advisor	Semiannually; July and January	Summary Report
Review, evaluate and recommend alternative programs.	Central Admin / Principals	Semiannually; July and January	Summary Report / Implementation Plan

**3.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.**

California Montessori Project provides a centralized website containing general information about our school as well as having multiple sub web pages for each of the six campuses. From the main page you can access Calendars, Newsletters, Governing Board agenda/minutes, Charter Documents, Policies & Procedures, etc. From each campus page you can access Campus News, Classroom News, Calendars, Club Montessori information, Campus Advisory Council information, Rosetta Stone, etc.

Access to school information, as well as the staff and teachers, is key in keeping a good relationship with our current and future families within the California Montessori Project. Future projects for California Montessori Project will continue to improve on this relationship, including: Green efforts – paperless communications, Aeries student assignment tracking and grading, and online resources for parents to complete enrollment information, submit field trip permission forms, and process payments and donations electronically.

**3.j.1. Goal: The California Montessori Project will use a variety of technologies to improve home-school communication electronically, to track assignments and grades, and to facilitate electronic submission of a variety of forms and payments.**

**Objective: Maintain webpage’s that contain pertinent information for teachers, administrators, parents and students. To facilitate the two-way flow of information between school and home, school web pages may include forms, calendars, events, etc, as well as e-mail addresses for teachers and administrators.**

**Benchmarks:**

**By August 2011:**

- 85% of all campus webpages will be consistent with the standard layout of providing home-school communications.

**By April 2012:**

- 90% of all campus webpages will be consistent with the standard layout of providing home-school communications.

**By December 2012:**

- 100% of all campus webpages will be consistent with the standard layout of providing home-school communications.

**BENCHMARKS/IMPLEMENTATION:**

California Montessori Project Technology Plan – 2011-2014

August '11	Communicate to parents the school's paperless 'Green' efforts; encouraging website interaction and gather email and phone contact information for use in parent-school correspondence.
August '11	Provide Kiosks at each campus for parent access to school's website and email links.
September '11 and ongoing	Evaluate classroom and school effectiveness at updating websites with current and accurate information. Develop a plan for ongoing maintenance and monitoring.
December '11	Evaluate utilizing Aeries to generate Report Cards from student grades currently being input by the Middle School Teams..
TBD based on evaluation	Develop Report Card template and provide training to Middle School teachers on Report Card generation.
January '12	Evaluate utilizing Aeries to input grades and provide ABI interface for parents for the 4 <sup>th</sup> , 5 <sup>th</sup> , and 6 <sup>th</sup> grade classrooms.
TBD based on evaluation	Develop procedures and provide training to the 4 <sup>th</sup> through 6 <sup>th</sup> grade teachers on inputting assignments and student grades. Provide procedures and training to parents on the use of Aeries ABI to monitor assignments and grades.
January '12	Evaluate tools to allow parents to fill out and submit forms electronically for Enrollment, Re-enrollment, Field Trips, Parent-Teacher Conferences, etc.
May '12	Summarize and recommend a plan for electronic form creation and submission.
August '12	Design forms, create procedures, and provide training to parents and staff on the electronic form creation and submission process.
January '13	Evaluate tools to allow parents to submit payments and/or donations electronically and for staff to track these funds and allocate them to the appropriate accounts
May '13	Summarize and recommend a plan for electronic submission of parent payments and/or donations.
TBD based on evaluation	Design forms, create procedures, and provide training to parents and staff on the electronic submission of payments and/or donations process.

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

The Executive Director and the Campus Principals will review data with staff on a quarterly basis as part of the staff meeting process as well as the teacher in-service programs. The Executive Director and Campus Principals will report progress on the implementation at the campus level to the Technology Advisory Council and the California Montessori Project Governing Board in January and June of each year. The Technology Advisory Council will review the data mid-year to determine the need for adjustments to the implementation of the curriculum component of this plan. An end-of-year report will be presented to the Executive Director by the Chairperson of the Technology Advisory Council, along with recommendations for the following year's implementation.

#### 4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA

##### 4a. Summary of District Teachers' & Administrators' Technology Skills

Using the information that has been gathered from observation and survey tools, it has been determined that the majority of staff members (district Teachers and Administrators) are between introductory and intermediate levels.

California Montessori Project recognizes that in order for real change to take place on how teachers conduct lessons and administrators use data collection, quality Professional Development is required. The success of meaningful technology use in the District rests on the effectiveness of all staff members' development in the understanding and use of technology. Instruction in how to understand and use technology will support the strengthening of instructional strategies identified as appropriate by the District's Technology Plan.

The California Montessori Project is committed to expanding the opportunities for technical professional development. A survey taken by the school's teaching and paraprofessional staff indicated that most would like to use more technology resources in teaching, but they felt limited by several factors:

- Availability of equipment dedicated to teacher use only,
- Insufficient on-site training time to acquire needed knowledge and skills, and to do the planning required to integrate technology into current curriculum,
- Insufficient knowledge of software applications and websites specifically related to teaching California Content Standards,
- Time constraints due to the school's emphasis on teaching academic content and improving student learning.

The California Montessori Project recognizes three levels of technological proficiency within their staff. From Level 1, it generally takes three years to reach Level 3:

Level 1 Personal Proficiency: Using technology for personal use

Level 2 Instructional Proficiency: Incorporating technology into instruction

Level 3 Leadership Proficiency: Training colleagues to reach levels 1 and 2

The California Montessori Project will use a technology assessment program, e.g.: Ed Tech Profile to evaluate teacher and staff technical skills.

- Level 1 – Personal Proficiency  
Objective – All teachers are able to:
  - Use computers to enhance personal productivity.
  - Locate information and conduct research via the Internet.
  - Operate a variety of common media display devices.
  - Proficiencies – All teachers are able to:
    - Activate a personal computer and install software.
    - Use basic computer troubleshooting skills.
  - Use a word processing application.

## California Montessori Project Technology Plan – 2011-2014

- Use a spreadsheet and/or file management application.
- Use the Internet to access, evaluate, and use information.
- Use email.
- Use common media display tools.
- Use technology equipment safely.
- Level 2 – Instructional Proficiency  
Objective – All teachers are able to:
  - Apply educational technology skills.
  - Integrate technology outcomes to drive instructional planning.
  - Proficiencies – All teachers are able to:
    - Use technology to present information in the classroom.
  - Instruct students in the use of technology tools in the classroom.
- Level 3 - Leadership Proficiency  
Objective – Technology teacher leaders (30% of all teachers) are able to:
  - Model educational technology skills.
  - Assist with staff development and peer mentoring.
  - Proficiencies - Technology teacher leaders (30% of all teachers) are able to:
    - Use a variety of technology tools.
    - Demonstrate and teach instructional technology proficiency.
  - Lead in the development of site technology plans.
  - Support the integration of technology into the curriculum.

Some teachers are aware of regional California Technology Assistance Project course offerings. One-hour workshops are offered to our teachers and paraprofessionals at monthly campus staff meetings as well as at our quarterly teacher in-services to supplement the basic technology proficiencies of teachers and other staff members.

The school's technology budget as outlined in this Technology Plan will fund the training of the school's staff utilizing our portable laptops in a mobile computer lab. In addition, it will address the needs of the staff to attend local workshops as well as annual conferences.

**4.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 through 3j) of the plan.

The EdTechProfile Survey for all California Montessori Project staff will be reviewed annually with each campus and with all staff member to complete the survey shortly thereafter. Deadlines will be posted. This survey shows that the majority of the school's staff is at the intermediate level in General Computer Knowledge and Skills, Word Processing, Internet, and email. Most staff members are at the introductory level in Publishing, Databases, Spreadsheets, Presentation Software, and Instructional Technology. A review of the Status Report for a Technology Assessment Profile which indicates the type of criteria / skills necessary and charts from the CCTC Program Standards 9 and 16, notes that staff is in need of further training for the use of technology in support of teaching/classroom management and the effective integration of technology into the curriculum. Data notes a need to provide training with regard to data aggregation and interpretation and the evaluation of authenticity, reliability and bias of web-based data resources.

**4.b.1 Goal: All Teachers will identify their technology skill needs through EDTECHPROFILE and increase their proficiency through K to the 8<sup>th</sup> Power lessons, CTAP Professional Development tools and other professional options.**

**Objective: By June 2014, 90% of teachers, paraprofessionals and administrative staff will be at “intermediate” or “proficient” in six EDTECHPROFILE skill areas.**

**BENCHMARKS/Implementation:**

June '2012	Create and Evaluate Summary Reports from EDTECHPROFILE to be reviewed for action. 75% of teachers, paraprofessionals, and administrators will be at “intermediate” or “proficient” in four EDTECHPROFILE skill areas.
June '2013	Create and Evaluate Summary Reports from EDTECHPROFILE to be reviewed for action. 80% of teachers, paraprofessionals, and administrators will be at “intermediate” or “proficient” in six EDTECHPROFILE skill areas.
June '2014	Create and Evaluate Summary Reports from EDTECHPROFILE to be reviewed for action. 90% of teachers, paraprofessionals, and administrators will be at “intermediate” or “proficient” in six EDTECHPROFILE skill areas.

**4.b.2 Goal: All Teachers will increase their knowledge of technology integration for the classroom.**

**Objective: By June 2014, 90% of staff will demonstrate increased use of technological learning resources to organize, teach and assess student learning in California Content Standards. .**

**BENCHMARKS/ Implementation:**

June '2012	Create and Evaluate Summary Reports from the classroom technology lesson plans to be reviewed for action. 75% of teachers will integrate at least three lessons incorporating technology learning resources in teaching language arts and mathematics. 75% of teachers will develop and implement spreadsheets to enhance mathematics curriculum and to maintain records of student achievement.
June '2013	Create and Evaluate Summary Reports from the classroom technology lesson plans to be reviewed for action. 80% of teachers will integrate at least four lessons incorporating technology learning resources in teaching language arts and mathematics, and research-based learning at all grade levels.
June '2014	Create and Evaluate Summary Reports from the classroom technology lesson plans to be reviewed for action. 90% of teachers will integrate at least five lessons incorporating technology learning resources in teaching language arts and mathematics, and research-based learning at all grade levels. Teachers will add at least one technological learning resource to their teaching repertoire annually thereafter.

**4.b.3 Goal: All Teachers will increase their knowledge of technology integration to communicate with their classroom families.**

**Objective: By June 2014 100% of staff will demonstrate increased use of technological resources to organize, assess, and communicate 4<sup>th</sup> through 6<sup>th</sup> grade student learning to the students’ parents.**

All Teachers utilize Aeries.net for reporting attendance and reviewing student information. Currently, only the Middle School teachers, students and parents have access to the Aeries ABI environment for immediate access to student information. It is our intent to provide this seem access to those teachers, students and parents.

California Montessori Project Technology Plan – 2011-2014

**BENCHMARKS/Implementation:**

June 2012 Annually Thereafter	Create and Evaluate Summary Reports from Aeries to be reviewed for action. 50% of all teachers will utilize Aeries Browser Interface (ABI) to organize, assess, and communicate student progress to the students and their parents. 100% of Kindergarten through 8 <sup>th</sup> grade teachers will publish a weekly newsletter that will be made available to parents electronically.
June 2013 Annually Thereafter	Create and Evaluate Summary Reports to be reviewed for action. 75% of all teachers will utilize Aeries Browser Interface (ABI) to organize, assess, and communicate student progress to the students and their parents. 75% of all teachers will utilize spreadsheet and database applications to support student learning in language arts and mathematics.
June 2014 Annually Thereafter	Create and Evaluate Summary Reports to be reviewed for action. 100% of all teachers will utilize Aeries Browser Interface (ABI) to organize, assess, and communicate student progress to the students and their parents. 100% of all teachers will utilize spreadsheet and database applications to support student learning in language arts and mathematics.

Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
4.b.1	100% of staff takes EDTECHPROFILE Proficiency Survey.	EDTECHPROFILE Proficiency Coordinator	March –May Annually	California Montessori Project’s EDTECHPROFILE Proficiency Survey Coordinator verifies staff has taken online survey.
4.b.1 4.b.2 4.b.3	A “Tech Mentor” teacher will be identified at each campus to support faculty growth in use of technological learning resources.	Principals	Aug. ’11 and annually thereafter	Technology software reports (K to 8 <sup>th</sup> , Accelerated Reader and Rosetta Stone) illustrating the utilization of technology learning resources. Copies of online grade reports for 7 <sup>th</sup> and 8 <sup>th</sup> grade students.
4.b.3	All teachers will publish electronic newsletters which will be transmitted to parents electronically through email and the school’s website.	Teachers, Principals, & Administrative Assistants	Aug. ’11 and weekly thereafter	Weekly newsletters, email logs, websites.
4.b.3	Conduct survey of teacher and parent need for online access to student progress data and grade reporting.	Principals & Teachers	Aug. ’11	Survey and survey results.
4.b.2	Provide training for teaching staff on the use of spreadsheets for enhancing mathematics instruction and for tracking student progress.	Technology Advisor, Tech Mentors, Educational Specialists	Aug. 11	Training documents, training agendas, sign in sheets.
4.b.3	Evaluate need for implementation of student progress tracking and grade reporting.	Teachers, Principals, Tech Advisor	Sept. 11	Survey results and evaluation report.
4.b.2	Monitor teacher utilization of spreadsheets for tracking student progress.	Tech Mentors, Educational Specialists, Principals	Sept. ’11 and annually thereafter.	Teacher’s assessment spreadsheets.
4.b.2	Monitor teacher utilization of spreadsheets to support mathematics lessons.	Tech Mentors, Educational Specialists, Principals	Dec. ’11	Sample math lessons, K to 8 <sup>th</sup> Power lesson plan summaries.
4.b.3	Set up access to Aeries Browser	Technology	Aug. ’12	Online access verified.

California Montessori Project Technology Plan – 2011-2014

Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
	Interface (ABI) for all classrooms. .	Advisor & Tech Mentor		
4.b.3	all staff and campus principals will be trained in the use of (ABI). Retrain/Update as needed	Technology Advisor & Tech Mentor	Aug. '12 Annually	Training agenda.
4,b,3	all teaching staff will train parents on the use of ABI so parents can access their student's progress and grades.	Teachers & Parents	Oct. '12	Training agendas, packaets and sign in sheets.
4.b.1 4.b.2 4.b.3	Staff develops individual professional development plans to increase their technology competency.	Principals	October '12	Principals meet with and review staff's professional development plans and technology goals.
4.b.1 4.b.2 4.b.3	Staff will participate in onsite workshops and trainings conducted by Tech Mentors to address individual professional development needs.	Tech Mentor	November '12 through June '13 Annually	Teacher's individual professional development plans; competency documented in emails, word processing documents, online grade reporting reports, demonstrated use of Internet resources.
4.b.1 4.b.2 4.b.3	A recommended list of workshops and opportunities for staff development based on the EDTECHPROFILE survey are researched and presented to staff. On site workshops will be featured.	Principals and Technology Advisor	June '13 and annually thereafter	List of workshops conducted locally, onsite training offerings, Quick Reference Guides, and handouts from staff trainings.
4.b.3	100% of all staff will use Aeries to review student progress and strategize how to improve student mastery of specific standards.	4 <sup>th</sup> – 6 <sup>th</sup> Grade Staff & Tech Mentor	June '13 and ongoing	Aeries Reports, instructional team meeting notes, parent correspondence.
4.b.1 4.b.2 4.b.3	Teachers who wish will be allowed to use one day of professional development to visit schools identified by CTAP that demonstrate exemplary use of technology to support the academic core curriculum K-8. Each teacher will report at a staff meeting on the program visited and how it might be utilized at their campus.	Executive Director, Principals, & Technology Advisor	Annually per academic year	Professional Development Plans, travel documents and faculty meeting notes.
4.b.1 4.b.2 4.b.3	Staff & stakeholder meeting to review effectiveness of staff development plan and make recommendations for new additions / strategies / formats.	Executive Director, Principals, & Tech Advisor	June '13 Annually thereafter	Notes from staff meeting; recommendations; review of results from EDTECHPROFILE Proficiency Survey.

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

Semi-annually the Executive Director, Campus Principals and Technology Advisor will review the data and discuss progress for meeting the Professional Development goals and benchmarks. Annually, in June staff and stakeholders will meet to make recommendations for new additions/strategies/formats.

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

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

### **General Overview:**

The six campuses of the California Montessori Project (CMP) share both similarities and differences in their network / hardware infrastructure, internet access, electronic learning resources, and technical support. Each of the six campuses is its own Local Area Network (LAN) with different ISPs.

Similarities exist within the administrative support as all campuses utilize similar desktops and network printers. Each campus has designated a staff member who will act as the on-site Technology Mentor for their campus. Microsoft Office 2003 / 2007 are the current standards for office productivity software. AVG is the standard antivirus program while Quickbooks, APTA, and Aeries are the standard accounting and student information software (SIS) used at all campuses. Email access is available from any location, and through any ISP. The California Montessori Project contracts with a separate vendor to provide access to email either through MS Outlook through a POP3 account or directly through the vendor's webmail link.

Differences exist with a mixture of computer operating systems consisting of Microsoft Home, XP Professional, Windows 7 Professional and one MAC OS X. Not all campuses utilize the same Internet Service Provider (ISP). The network infrastructure at each campus is different, with off the shelf home office routers, wireless access and switches to the cabling infrastructure.

Classroom computers have been and are purchased from either Dell or Insight Investments ISE Division. Further, online learning educational products such as Accelerated Reader are accessible from each classroom while K to the 8<sup>th</sup> Power and Rosetta Stone are accessible from either the classroom or from home via the Campus web pages. Although software designed to improve the core subjects such as math, reading, and typing skills are used throughout the 6 campuses, its use is based upon the needs of each student, teacher and or resource center.

### **Existing Hardware:**

The following tables provide an inventory of computer equipment deployed amongst the 6 campuses in the California Montessori Project. Since 2008, the California Montessori Project has nearly doubled the number of computer devices in its inventory. Network printers have more than tripled in the inventory. The new Orangevale campus is the first internally managed network amongst the campuses. The Technology Advisor is required to be onsite to complete any network changes needed.

The majority of the campuses have CAT 5 cabling from the ISP router to the computer device. There are a few district leased buildings that have fiber running within the campus infrastructure. There are no ISP fiber connections at this time.

California Montessori Project Technology Plan – 2011-2014

Campus	Number of computer devices	Less than a year old	Between one year and two years old	Between two years and three years old	Between three years and four years old	Over four years old
American River / Carmichael / Orangevale	228	8	34	4	90	92
Central Administration	14	2	0	1	3	8
Capitol	52	9	0	0	32	11
Elk Grove	86	4	0	9	52	21
Shingle Springs	111	5	5	12	47	42
Total	491	28	39	26	224	174
% of Total # of computer devices		6%	8%	5%	46%	35%

Location	Office Productivity Software Licenses Office 03 & 07	Office Productivity Software Licenses Office 07	LCD Projectors	LCD	Classroom to Laser Printer Ratio <sup>1</sup>	Classroom to Laser Printer Ratio	Technology Support (FTE)	Technology Support (FTE)
	Current <sup>2</sup>	Needed <sup>2</sup>	Current	Needed	Current	Needed <sup>1</sup>	Current	Needed
Central Admin - Carmichael	14	4	1	1	n/a	n/a	0.1	0.1
American River Campus	132	57	4	3	1:1	0	0.05	0.3
Capitol Campus	52	21	3	1	1:1	0	0.05	0.15
Carmichael Campus	73	16	2	2	6:1	6	0.05	0.2
Elk Grove Campus	86	33	2	2	1:1	0	0.05	0.3
Orangevale Campus	23	20	1	2	1:1	0	0.1	0.2
Shingle Springs Campus	111	40	5	1	1:1	0	0.05	0.3

<sup>1</sup>Campus with ratios x:1 indicates no individual classroom laser printers, but access to the administration’s high-speed laser printer

<sup>2</sup>License estimates are based upon achieving a 5:1 computer to student ratio and campus growth over a 3 year period. Preliminary estimates for immediate needs are described in Section 5.a above. Curriculum specific licenses are yet to be determined, and are not included in these estimates.

### **Existing Internet Access:**

All California Montessori Project campuses, as well as the Central Administration office, have high-speed internet access through local communications providers. Since campuses are in various locations, high-speed internet access is provided by 4 different vendors utilizing either Digital Subscriber Line (DSL) technology or broadband cable. Access speeds vary depending on provider and campus location. Download speeds vary from 4 Mbps to 1 Mbps, with upload speeds varying from 128 Kbps to 6Mbps. A low-end, off the shelf home office router is utilized at each site to provide basic DHCP networking capabilities. No intrusion detection software or appliance is utilized, thus there is no capability to determine if and when a network or system has been compromised until a Technology Ticket is created to fix the problem. In order to provide consistency among the campuses for email, a single vendor is utilized. This same vendor also provides web hosting services while a web master at each campus maintains their campus web pages. The Technology Advisor and the Special Projects Coordinator maintain all other website pages. Access to these services is available regardless of local communications provider.

### **Existing Electronic Learning Resources:**

All devices are standardized on the Microsoft Office suite of products. Online learning educational products such as Accelerated Reader are accessible from each classroom while K to the 8<sup>th</sup> Power and Rosetta Stone are accessible from either the classroom or from home via the Campus web pages. Although software designed to improve the core subjects such as math, reading, and typing skills are used throughout the 6 campuses, its use is based upon the needs of each student, teacher and or resource center. The 4<sup>th</sup> through 8<sup>th</sup> grade students have access to K to the 8<sup>th</sup> software for both remediation and enrichment lessons. For English Language Learners, the Rosetta Stone online program is assigned to support English language acquisition. Students with reading difficulties are assigned CD's with lessons read aloud from their text books and literature novels. Students with handwriting difficulties use Dragon Naturally Speaking to dictate their writing assignments.

### **Existing Technical Support:**

Technical support for the California Montessori Project is provided by the Technology Advisor, a full-time position, and part-time Campus Technology Mentors (one at each campus) funded through the California Montessori Project's general fund

Technical support for existing computers, network devices, and ISP network support is either directly provided by, or coordinated through, the Technology Advisor. The Technology Advisor is responsible for the maintenance, upgrade and replacement of all technological infrastructure; computers, printers, phones, software application, etc. Network switches managed by a hosting district's support infrastructure (American River and Orangevale Campuses) are not directly supported by the Technology Advisor. However, the Technology Advisor coordinates and liaisons problem and configuration issues to the host district when required. The Technology Advisor provides email administration, web site administration, liaisons with various ISPs and software vendors, and provides input to technology plans and directions for the California Montessori Project. The Campus

Technology Mentors provide workstation / printer and application support for their campus. The Campus Technology Mentors work directly with the teaching staff to troubleshoot workstation / printer and application issues and provide software application support to the teaching staff as needed. The Campus Technology Mentors also consult with the teaching staff on technology curriculum planning and provide demonstrations to colleagues at staff meetings. The Campus Technology Mentors also coordinate all High Risk Crime presentations for students, parents and staff members through the local Sheriff's department or State Department of Justice. The Campus Technology Mentors refer network problems as well as challenging hardware and software issues to the Technology Advisor who visits each campus as needed. A problem reporting system was implemented through TechSETS known as MyTecDesk. This system is important as this is the first insight to the challenges each campus is having.

The Technology Advisor provides network, workstation / printer, and application support for both the central administration offices and the 6 campuses. The Technology Advisor is the conduit between each campus and their designated ISP, with sponsoring school district technical support (American River and Orangevale campuses), and with the vendor providing email and web hosting services. In addition to technical support activities, both informal and formal technical training is provided to administrative and teaching staff as well as to students. Information technology planning, purchasing, and configuration management are provided by the Technical Advisor.

**5.b. Describe 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.**

With technology, there is always a need to update and replace old equipment with newer equipment. Teachers need continued access to computer devices that meet district standards to use the district supported software and student information system (Aeries) and there is also a need to add new computers to lower the student to computer ratio. The need for network servers will continue to be a priority and data storage increases as technology is used more and more. New technologies come to light every day and the California Montessori Project must be able research and adopt these technologies as needed. Additionally, LCD projectors and multimedia boards are being utilized more throughout the district but are not yet standardized in every classroom. Future expansion of these technologies will be investigated pending research outcomes, as funds allow and/or as a possible component of any new future fundraising / grant initiatives. Alternative technologies such as virtual desktops will also be explored and researched as possible alternatives to the high cost of computer refreshes.

It is the California Montessori Project's desire to move toward a more efficient and effectively managed network environment. Therefore, an analysis of our current environment is underway. From this study, we will understand the necessary steps that must be taken to meet the fast paced technological advancements.

Each school's network infrastructure is slightly different depending on the physical environment. Two campuses in the San Juan School District and one campus in the Sacramento City School District have

California Montessori Project Technology Plan – 2011-2014

an internal fiber infrastructure as they are formal facilities within their district. In these three locations, they have 100 Mb back-bones to IDF locations. The other three facilities have had internal wiring installed to meet the needs of the campus. In all cases, each classroom has at least one network drop.

The California Montessori Project will research new technology utilizing E-Rate funding to update those schools to newer telecommunication technology to improve communications at all school sites. The district will pursue new technologies to integrate and enhance existing systems to improve the communications at all school sites. The California Montessori Project will continue to seek out E-Rate funding to assist with all of its possible future network and telecommunication needs.

**Hardware Needed:**

Many ISP’s currently provide school districts a service call Opt-e-man. This is the preferred WAN solution in a school environment since much of the cost can be reduced using E-Rate funds. An Opt-e-man solution will be recommended using a technology called MPLS. This technology allows for each school to be connected to each other in a mesh fashion using the ISP provided switching environment. The Opt-e-man system is essentially a network switch located at the ISP facility. Each of the sites is connected to this switch allowing all sites to be able to communicate. Advantages to this option are great. There would be only one ISP to deal with for all communication needs. Discounts are generally larger due to multiple sites. Only one Firewall would be required for the entire network. Probably most importantly, these types of connections are monitored by the ISP to provide the greatest possible uptime. Most disruptions in service can be automatically repaired by routing traffic to other network equipment. The down side to this option would be the cost involved. The Technology Advisor has begun the process to investigate the potential costs of this implementation by using E-Rate funds. E-rate and the California Teleconnect Fund (CTF) are programs that provide discounts on telecommunication costs to eligible schools. Although there are differences in eligible services and discount rates, it is possible for schools to receive significant discounts on telecommunications costs by using both E-rate and CTF discounts together.

Principals have expressed an interest to utilize multimedia enhanced curriculum. The resources needed include laptops for teachers, LCD projectors, document cameras, and video display Interactive Whiteboards, etc.

Grades K-6	Standard Instruction	Digitally Enhanced Instruction	Digitally Enhanced Instruction with Student participation
	By Aug. 2011, all classrooms / resource will have access to the following	By Aug. 2012, 75% classrooms / resource will have access to the following	By Aug. 2013, 100% classrooms / resource will have access to the following
Phone	x	x	x
Teacher Laptop or tablet		x	x
Connection to High Speed scanner		x	x
LCD mounted projector		x	x
Classroom sound system		x	x
Workstation ratio 10:1 (K-1)	x	x	x
Workstation ratio 5:1 (2-6)	x	x	x
Document camera		x	x
Wireless Internet access	x	x	x
Classroom Interactive student		x	x

California Montessori Project Technology Plan – 2011-2014

participation clickers 1/student			
Textbook online		x	x
Interactive White Board Technology		x	
Aeries online gradebook 6th grade		x	x

Grades 7-8	Standard Instruction	Digitally Enhanced Instruction	Digitally Enhanced Instruction with Student participation
	By Aug. 2011, all classrooms / resource will have access to the following	By Aug. 2012, 75% classrooms / resource will have access to the following	By Aug. 2013, 100% classrooms / resource will have access to the following
Connection to High Speed printers	x	x	x
Phone	x	x	x
Teacher Laptop or tablet		x	x
Connection to High Speed scanner		x	x
LCD mounted projector		x	x
Classroom sound system		x	x
Workstation ratio 5:1 (7-8)	x	x	x
Document camera		x	x
Wireless Internet access	x	x	x
Classroom Interactive student participation clickers 1/student		x	x
Textbook online	x	x	x
Interactive White Board Technology		x	x

**Electronic Learning Resources Needed:**

To provide the basic office productivity software required by administrative staff, teachers, and students, the California Montessori Project must inventory the current needs, purchase site licenses to accommodate these needs, and develop a process to manage the inventory, configuration, and distribution of software. An application tool will be evaluated to track the electronic learning resources. Accelerated Reader, Rosetta Stone, and Aeries.Net are a few of the ELR items that are currently being used across all the campuses. Regular Summary Reports are created and reported to each Campus Principal for review.

Data storage requirements will increase as the amount of multimedia materials are incorporated into the curriculum and into students' work on student assignments.

The California Montessori Project will explore the increased usage of multimedia instructional materials and equipment to support the curriculum. To act as a guideline for the Technology Plan, levels of multimedia equipment have been outlined by grade level.

- Standard Instruction – Technology will be present in the classroom to allow the teacher access to online materials, which includes access to the student database for online attendance.

- Multimedia Enhanced Instruction – In addition to the above, the teacher will have available multimedia equipment to support the curriculum.
- Multimedia Enhanced with Student Participation – This level will engage the students visually and interactively. The teacher will be able to quickly monitor student comprehension with the voting (clicker) participation device.
- Media Resource Libraries – Used to support the curriculum.

The California Montessori Project is currently using K to the 8<sup>th</sup> Power for Technology training that incorporates technology in Language Arts and Mathstandards across grade levels K-8<sup>th</sup>. Further, the district has incorporated online application training with Accelerated Reader, STAR Reader, Accelerated Math, STAR Math, Rosetta Stone and the new California Learns portal.

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

#### **Networking and telecommunications infrastructure:**

The California Montessori Project is planning to upgrade the existing network infrastructure from its current 100 Mbps backbone architecture to a fiber-based architecture that will support a minimum of 1 Gbps and higher as needs require for all campuses. This will be implemented via a program or vendor who can deliver to all six campuses in the California Montessori Project network. Further, the program or vendor chosen will support the growing needs of a high speed internet connection. This upgrade would support video content across the network (Video streaming, Video conferencing, etc.).

California Montessori Project plans to deploy appropriate wireless access at all campuses to provide secured network access to authorized laptops and other wireless devices.

The California Montessori Project would be working to upgrade existing telephone technologies to be more network-aware and also begin working on a foundation to support and possibly deploy Voice-over-IP (VoIP). Only one of the six campuses is capable of supporting VoIP. The other five campuses will need to be upgraded.

The California Montessori Project will be investigating various security efforts such as networked Closed Circuit TV surveillance, physical access control ("Card lock", etc.) and other network and physical security initiatives.

Additional hardware has been purchased to keep up with the demands of the document management system for the central office. As the needs to purchase additional storage for the existing Network Attached Storage (NADS) SAN arise, funding is allocated to continue to move forward to support the needs of electronic storage systems.

**Physical Plant Modifications Needed:**

Physical plant modifications: California Montessori Project has contracted with an outside vendor for 4 (Carmichael, Capitol, Elk Grove and Shingle Spring) of the 6 campuses which provide for the physical network cabling as well as telco infrastructure. American River is maintained by the school district in which they reside as they are leasing the school infrastructure. With the upcoming network modifications, there will be some major recabling necessary at several of the campuses. Caution should be given to those campuses needing the new cabling and the cost benefit for those campuses moving.

**Technical Support Needed:**

A network of this size will require a qualified Information Technology staff to manage the network. Our recommendations are geared towards reducing the staff level required to manage the network by consolidating resources, enabling management across the WAN, and created automated management processes wherever possible. However, not all problems can be averted, nor can they all be solved remotely.

It is anticipated that there will continue to be network and computer issues that will arise that require an on-site visit to correct. This is a function of a large number of devices spread out over several geographically diverse sites, used by students and teachers.

A typical rule of thumb is one support person for every 75-125 workstations. Studies show that the recommended standard ratio was established by Technology Support Index (TSI) for the International Society for Technology in Education (ISTE):

	Low Efficiency	Moderate Efficiency	Satisfactory Efficiency	High Efficiency
Staffing to Computer Ratio	Computer-to-technician ratio is over 250:1	Computer-to-technician ratio is between 150:1 and 250:1	Computer-to-technician ratio is between 75:1 and 150:1	Computer-to-technician ratio is between 75:1

This number varies depending on how rigidly controlled the environment is. More rigid controls and automation increases the number of workstations that an IT person can support.

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

Year	2011	2012	2013	Responsibility
<b>Hardware Replacement or Purchase</b>	70% of 5+ years old equipment will be replaced	80% of 5+ years old equipment will be replaced	90% of 5+ years old equipment will be replaced	Sites and Technology Advisor
<b>Infrastructure</b>	70% of 7+ years old equipment will be	80% of 7+ years old equipment will be	90% of 7+ years old equipment will be	Technology Advisor

California Montessori Project Technology Plan – 2011-2014

<b>Replacement or Purchase</b>	replaced	replaced	replaced	
<b>Learning Resources Purchased</b>	Purchase as needed or required	Purchase as needed or required	Purchase as needed or required	Director of Special Education and Technology Advisor
<b>Total IT Staffing</b>	2.0 FTE	3.0 FTE	3.0 FTE	Sites and Technology Advisor
<b>Technical Access</b>	All staff will use MyTechDesk System to Report problems. 40% will do basic troubleshooting skills	All staff will use MyTechDesk System to Report problems. 60% will do basic troubleshooting skills	All staff will use MyTechDesk System to Report problems. 80% will do basic troubleshooting skills	Technology Advisor

This process will be replicated as needed for years 2 and 3 based on current data. By June 2012, California Montessori Project will be connected by a single Wide Area Network to assist in higher efficiency, productivity and consolidated costs for Internet and Voice costs. To accomplish this, Research will take place in 2011, procurement funding with E-rate, local funds, etc, will take place in 2011-2012, and installations will occur in the Spring of 2012

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

The Technology Advisor will maintain an inventory of all campus technology equipment. The Technology Advisor will obtain status information and report progress towards achieving goals outlined in this section. The Technology Advisor will produce reports, every other month, to be reviewed by the Executive Director. In addition, weekly status meetings with the Executive Director and campus principals concerning technology issues will be held. An annual review of the progress made in reaching goals set by the California Montessori Project will be reviewed by the Executive Director and campus principals. Any required revisions required to the plan will be made at this time.

Each site’s Technology Committee will establish the immediate needs for their site. The District Technology Committee will review the Technology Plan biannually to ensure that progress has been made and if modification or addendums need to be made. Information will be shared with the Leadership Team comprised of the Executive Director, Campus Principals, Educational Specialists, and Campus Technology Mentors. Technical Data Collection will be obtained from the MyTecDesk system and network monitoring tools. The compiled data will be analyzed to identify areas for improvement.

**6. FUNDING AND BUDGET COMPONENT CRITERIA**

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

**The following list of established and potential funding sources is an approximation:**

- Title I – Disadvantaged Students
- Title II – Teacher Quality
- Title V – Innovative Strategies
- EETT – Technology Support and Staff Development
- Grants
- E-Rate
- Microsoft K12 Voucher Funds
- General Funds
- Private Donations
- CAC fundraising
- Corporate Foundations

The California Montessori Project will also explore the potential for allocating additional general budget funds for technology. Setting long-term priorities and providing ongoing funding to continue to replace obsolete equipment is a goal of the leadership team of the California Montessori Project. Purchasing with one time funding, along with pursuing the options of leasing equipment, may be future options for providing the district with the resources it requires. The district is committed to a long-term financial plan that provides students and teachers with suitable technology to support learning, and at the same time, protects the community’s investment. Responding to the financial realities presented by the need to make technology available to students is a significant challenge. Providing and maintaining technology resources not only includes the initial purchase price of the equipment but must also include the infrastructure to maintain and support equipment as well as to connect each school to the district and every student and staff member to the Internet. Professional learning is essential, both in the use of equipment and software, as well as in instructional strategies for the integration of this technology into the curriculum.

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

	<b>Number @ Unit Cost or Cost per Year 2011-12</b>	<b>Number @ Unit Cost or Cost per Year 2012-13</b>	<b>Number @ Unit Cost or Cost per Year 2013-14</b>	<b>3-Year Plan Total Cost</b>
<b>1000 Certificated</b>				
<b>1 FTE IT Director</b>	\$60,000	\$63,000	\$66,150	\$189,150
<b>Tech supported Stipends</b>	\$18,000	\$18,000	\$18,000	\$54,000

California Montessori Project Technology Plan – 2011-2014

	<b>1 @ Unit Cost or Cost per Year 2011-12</b>	<b>2 @ Unit Cost or Cost per Year 2012-13</b>	<b>2 @ Unit Cost or Cost per Year 2013-14</b>	<b>3-Year Plan Total Cost</b>
<b>2000 Classified</b>				
<b>FTE IT Support</b>	\$33,000	\$67,650	\$71,032	\$171,682
<b>3000 Estimated Benefits</b>				
<b>Estimated at 15%</b>	\$13,950	\$19,598	\$20,577	\$54,125
<b>4000 Equipment, Software, Supplies</b>				
Desktop Computers	\$15,000	\$15,000	\$15,000	\$45,000
Laptop / Netbooks for Classrooms	\$15,000	\$15,000	\$15,000	\$45,000
Laptop for Teachers	\$10,000	\$10,000	\$10,000	\$30,000
Smart Board Technology	\$20,000	\$20,000	\$20,000	\$60,000
Laser Printers	\$750	\$750	\$750	\$2,250
LCD Projectors	\$3,750	\$3,750	\$3,750	\$11,250
Digital Cameras	\$750	\$750	\$750	\$2,250
Digital Movie Cameras	\$450	\$450	\$450	\$1,350
Administrative Software (Office Productivity)	\$5,000	\$5,000	\$5,000	\$15,000
Scanners	\$6,000	\$6,000	\$6,000	\$18,000
Content Filtering Appliances	\$1,000	\$1,000	\$1,000	\$3,000
Network switches, cabling, & wireless access point, routers, etc maintenance	\$23,300	\$23,300	\$23,300	\$69,900
<b>5000 Contracts</b>				
Technical Training for Teachers & Administration	\$10,000	\$7,500	\$5,000	\$22,500
Technical Training for IT Staff	\$7,500	\$10,000	\$12,500	\$30,000

California Montessori Project Technology Plan – 2011-2014

	<b>Number @ Unit Cost or Cost per Year 2011-12</b>	<b>Number @ Unit Cost or Cost per Year 2012-13</b>	<b>Number @ Unit Cost or Cost per Year 2013-14</b>	<b>3-Year Plan Total Cost</b>
Curriculum Software License	\$40,000	\$40,000	\$40,000	\$120,000
Content Filtering, Anti-virus, & Anti-spy ware	\$1,000	\$1,000	\$1,000	\$3,000
IT Support Contracts	\$65,000	\$5,000	\$5,000	\$75,000
Broadband Internet Services, Email, & Web Hosting	\$28,800	\$28,800	\$28,800	\$86,400
<b>6000 Capital Expenditures</b>				
WAN connecting all 6 campuses	\$200,000	\$23,000	\$23,000	\$246,000
Phone Upgrades VoIP	\$0	\$50,000	\$50,000	\$100,000
Video Conferencing	\$0	\$50,000	\$50,000	\$100,000
Additional campus infrastructure for potential moves	\$50,000	\$50,000	\$50,000	\$150,000
Potential New Campus Expansion	\$0	\$0	\$500,000	\$500,000
<b>TOTAL</b>				<b>\$2, 204,857</b>

**6.c. Description of the district’s replacement policy for obsolete equipment**

The California Montessori Project has a technology infrastructure that is similar across all 6 campuses based on our objective of 5:1 student to computer ratio. The California Montessori Project has a 5 year technology life cycle of all computer equipment, and based on our inventory, we will develop a life cycle plan to replace computers after five years. Establishing the policy, procedures, standards, and guidelines is one of the goals and defined benchmarks (i.e. Section 5.c.2) of this Technology plan. Currently, obsolete equipment is replaced as recommended by the Executive Director and the Technology Advisor. An onsite Inventory Management system will be acquired to inventory current equipment, tag all new arrivals, while obsolete tagged equipment is removed from the system. Annual

California Montessori Project Technology Plan – 2011-2014

audits are conducted and checked at school sites to maintain inventory. Equipment in need of repairs is classified as ‘obsolete’ if the system is not worth the investment in parts/labor.

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

The California Montessori Project’s annual budget is developed in May/June; technology budget forecasts make up part of this process. The Technology Advisor provides input to the annual technology budget required to implement this plan. The technology budget estimates are reviewed by campus principals with final approval by the Executive Director. The Technology Advisor prepares mid-year reports in January of each year to update the campus principals and Executive Director.

The Executive Director is responsible for monitoring all aspects of the budget, including technology expenditures. The Executive Director also oversees the day to day budget and plans for the expenditure of the various funds and programs. The chart below summarizes the expected feedback loop used to monitor funding decisions.

Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Budget Source	Monitoring and Evaluation Activities
6.c.1	Prepare annual Technology budget to implement the Tech Plan goals and activities.	Technology Advisor	April/May annually	No additional cost	Budget document.
6.c.2	Report/update progress of the annual Technology budget.	Technology Advisor	January annually	No additional cost	Minutes of meetings.
6.c.3	Update technology funding as new dollars are available.	Executive Director	Ongoing	No additional cost	Budget documents.

This process will be replicated as needed for years 2 and 3 based on current data and E-rate application process.

**7. MONITORING AND EVALUATION COMPONENT**

The California Montessori Project Technology Advisory Council has developed a three year Technology Plan for the 2011-2014 school years. The plan documents the school’s current technology equipment and utilization. In addition, a focus of this plan is to outline the plans for technology acquisition and implementation consistency across all six campuses. The plans for the 2011-2012 through 2013-2014 school years include the goals and benchmarks to implement technology and professional development at increasing levels in a consistent manner across all six campuses as well as the administrative offices. The current technology planning process addresses increased use of existing and future technology tools in curriculum, instruction and assessment.

This plan will be reviewed with the Technology Advisory Council, the Campus Principals, the Executive Director and the school’s Governing Board each year to determine progress and additional needs.

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

Embedded in the text of each of the above components of this plan is a description of how each of the goals and the benchmarks for each component will be evaluated.

To monitor adequately the school’s progress in utilizing technology tools for teaching and learning, data will be collected in the following areas:

- Annual increases in teachers’ technology proficiencies per the EDTECHPROFILE assessment.
- Annual increases in teachers’ use of technology to enhance curriculum.
- Students’ progress in mastering the California Content Standards in Language Arts and Math.
- Students’ progress in mastering the Montessori Albanesi Curriculum Grade Achievement Tests.
- Students’ progress in acquiring technology proficiency skills.
- Annual maintenance and infrastructure upgrade activities.
- Adequacy of Technology Mentor and Technical Support training per staff focus groups, mentor logs and review of lesson plans/student work.

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

Embedded in the text of each component of this plan is a schedule of when each of the goals and the benchmarks for each component will be evaluated.

Annually in April	Review of budgets to determine if Technology Plan goals are being met and if additional grants, donations, or parent fundraisers need to be conducted to support the Technology Plan’s goals.
Annually in June	The Executive Director, the Principals, and the Technology Advisor present data and summary of progress toward meeting goals at Technology Advisory Council and Governing Board meetings. Principals pass the information to their staffs and their Campus Advisory Councils.
Annually in January	The Executive Director, the Principals and the Technology Advisor gather data and present a status report to the Technology Advisory Council and Governing Board at their regularly scheduled meetings. Principals

## California Montessori Project Technology Plan – 2011-2014

	pass the information to their staffs and their Campus Advisory Councils.
Ongoing	Modifications of the plan and activities are made based on the data gathered, funding available, and changing priorities.

**7.c** Describe the process and frequency of communicating evaluation results to Technology Plan stakeholders.

The Technology Advisor, the Campus Technology Mentors, the Principals, and the Executive Director will prepare semi-annual reports of the progress toward meeting stated goals and benchmarks. This report will be in conjunction with the budget development in April-June and the semi-annual report in January. The report will be presented to the Technology Advisory Council, the Governing Board and the Campus Advisory Councils at each campus at regularly scheduled meetings.

### Participating Stakeholders

#### **District Personnel**

Gary Bowman, Executive Director

#### **Technology Personnel**

Meredith L Jolly, Technology Advisor

Kim Zawilski, Technology Coordinator

#### **Financial Personnel**

Tamara Johnson, Chief Business Official, Wheatland School District

#### **Site Administrators**

Julie Miller, Principal, American River Campus

Kim Aldridge, Principal, Carmichael Campus

Bernie Evangelista, Principal, Capitol Campus

Mickey Slamkowski, Principal, Elk Grove Campus

Dorothy Hilts, Principal, Orangevale Campus

Kim Zawilski, Principal, Shingle Springs Campus

#### **Technology Mentors**

Mark Cook, Teacher, American River Campus

Kathy Gaudreau, Teacher, Carmichael Campus

Heather Stanley, Administrative Assistant, Capitol Campus

Ken Endrizzi, Teacher, Elk Grove Campus

Meredith Jolly, Technology Advisor, Orangevale Campus

Kris Rogers, Teacher, Shingle Springs Campus

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

### **Adult Literacy:**

According to March 2011 Aeries data, 0.4% of the parents of students served by the California Montessori Project have not completed high school. 3.8% of the parents have no more than a high school education, 26% have some post-secondary education, 38% have completed four years of post-secondary education, and 32% have completed post-graduate coursework. The percent of parents who “declined to state” was 0%.

### **8.a. If the district has identified adult literacy providers, there is a description of how the program will be developed in collaboration with those providers.**

The six campuses of the California Montessori Project are located in four elementary school districts within the greater Sacramento area. These school districts are Buckeye Union Elementary School District, Elk Grove Unified School District, Sacramento Unified School District, and San Juan Unified School District. Each of these districts offers a variety of adult literacy courses. These include, but are not limited to, one-on-one tutoring activities, video courses, online Internet courses, and computer programs specifically designed to provide adult education.

The local libraries offer adult literacy services including basic reading instruction and one-on-one Volunteer Tutoring. The Literacy Action Council operates through the local libraries, and is a non-profit, volunteer organization that raises money to help support the Literacy Programs.

Several high schools in the areas where our campuses are located offer adult tutoring and adult education programs. For example, the El Dorado Union High School District as well as the Washington Unified School District offer free one-on-one tutoring to adults to increase literacy. In addition, there are courses available through these school districts such as a high school diploma program, general education development (GED), test preparation, and English as a Second Language (ESL) instruction.

The County Offices of Education in El Dorado County and Sacramento County offer adult literacy distance learning education programs utilizing videotaped courses, CD-roms, and on-line instruction. These programs include “English For All”, “Connect With English”, “Project Connect” and others.

During the Fall of 2011, and each year thereafter, the California Montessori Project will consult with local county and school adult literacy programs and offer to work with them. Such collaboration could include outreach, facilities for classes, and use of equipment.

**9. EFFECTIVE RESEARCH BASED METHODS AND STRATEGIES COMPONENT**

**Effectiveness of Education Technology in Improving Student Achievement in Core Subject Areas Research: California Montessori Project Technology Advisory Council.**

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

In reviewing research based strategies and methods, California Montessori Project looked for research which would specifically support the primary directives of the Montessori philosophy. Technology will be recommended which supports the idea that each child is viewed as a unique individual who learns at his/her own pace and at his/her own level.

Curricular Area	Research Consulted	Annotation
Math/Core Subject Area Improvement	<p>Pierce, Robyn;Stacey, Kaye; Barkatasas, Anastasios.(2007) A scale for Monitoring Students’ Attitudes to Learning Mathematics with Technology. <i>Computers And Education</i>. Orlando.FL</p> <p>Dynarski,Mark et al. Effectiveness of Reading and Mathematics Software Products: Findings from the First Student Cohort. Report to Congress. (2007). <i>National Center for Education Evaluation and Regional Assistance</i>. Jessup,MD</p> <p>Bruce, Catherin D.,Ross, John. Student achievement effects of technology-supported remediation of understanding of fractions. (2009) <i>International Journal of Mathematical Education in Science and Technology</i> v. 40 no. 6 p. 713-27</p>	<p>A model of how the use of technology can enhance the achievement of mathematics.</p> <p>The effects are greater when the use of the technology software was used often.</p> <p>When this technology was used, students had a greater understanding of fractions and the amount of practice needed to master them was reduced.</p>
Literacy	<p>Unsworth,Len. (2003) Reframing research and literacy pedagogy relating to CD narratives: Addressing ‘radical change’ in digital age literature for children. <i>Issues In Educational Research Vol 13</i></p> <p>Rozema,Robert (2004) Electronic Literacy: Teaching Literary Reading Through the Digital Medium.</p>	<p>Multimodal resources of children’s literature engaged readers in active, reflexive reading that is not possible using traditional books. It is a new and creative way of teaching point of view and the elements of fiction.</p> <p>Web-based tools helped students make personal connections between the story and their own lives and discuss it in a collaborative way. It aided students learning about critical theory and to read in an analytical way.</p>

California Montessori Project Technology Plan – 2011-2014

Curricular Area	Research Consulted	Annotation
Multi cultural Education	<p>Johnson,Lisa (2005) Using Technology to Enhance Intranational Studies. <i>International Journal of Social Education v19n2</i></p> <p><u>Yang, Guey-Meei; Peck, Melanie; Mozdierz, John; Waugh-Fleischmann, Christine.</u> (2010) The Journey of Four Art Educators: Investigating the Educational Potential of Podcasts. <i>Art Education v. 63 no. 4 p. 33-9</i></p>	<p>Using technology provides an exceptional means for students to study and conceptualize the diverse perspectives within America.</p> <p>This research demonstrated positive impacts from the use of technology, via podcasts. It allowed for students K-high school to experience art through others eyes and to share their with the world.</p>
Science	<p>Mackinnon, Gregory R. (2006) Contentious issues in science education: building critical thinking patterns through two-dimensional concept mapping. <i>Journal of Educational Multimedia and Hypermedia p.433(13)</i></p> <p>Martin, R., Sexton, C., Franklin, T., Gerlovich, J., McElroy, D. (2009). Why use technology in the Science classroom? <i>Teaching Science for All Children (with My Education Lab) p.231-232</i></p>	<p>Science education integrated with an elaborate model of technology in regards to electronic discussion lead to the improvement of effective discussions. Electronically mapping out the issue had a positive impact on the understanding of it.</p> <p>The article notes that we are in an age of information overload; utilizing the internet for science research teaches the skill of prioritizing important information.</p>
Integration of Montessori and Technology	<p>Boyd, Barbara Foulks. (2008) Assistive Technology for Every Child. <i>Montessori Life</i></p>	<p>Montessori philosophy supports the idea that the classroom be a reflection of the home. Currently, computers can be found in many homes. Different computer programs are being used as extensions to the Montessori curriculum.</p>
Integration of Montessori and Technology	<p><u>Hubbell, Elizabeth Ross.</u> (2003) Integrating technology into the Montessori elementary classroom. <i>Montessori Life</i></p>	<p>This article demonstrates the effectiveness of technology in aiding teachers in the Montessori classroom. It speaks to the ease of access to information for the students when learning a new subject.</p>
Parent and Teacher Communications	<p>Clemente, Joanne Scarella. (2002) Parental Involvement: Empowering parent/teacher Communication through Technology.</p>	<p>Parental involvement enhances the achievement of students. The web-based program Homework.net keeps parents informed of student activities, projects, progress and problems. Parents favored emails versus paper notes being sent home with information.</p>
Long term benefits of technology in the classroom and for staff development.	<p>SPA Releases report on the effectiveness of technology in schools: '95-'96 report supports the use of technology as a valuable learning tool. (1995) <i>PR Newswire pp1121DCTU002</i></p>	<p>Using technology as a learning tool has significant positive effect on the attitudes and self-concept of students toward learning, the achievement of students, and student interactions with other students and teachers.</p>

Since the California Montessori Project fully embraces the Montessori philosophy, research was reviewed which specifically supported the Montessori philosophy and how technology could be implemented into this educational model. Montessori as an educator in her time did not have the tools of technology available, so research was chosen based on inherent principles.

California Montessori Project Technology Plan – 2011-2014

Component Reinforcement	Research Source	Research Summary
Integration of Montessori and Technology	Love, Arlene; Sikorski, Pat; Integrating Technology in a Montessori Classroom. 2000	The importance of the prepared environment to the Montessori educational philosophy necessitates careful teacher training to successfully implement computer technology in the Montessori classroom. This paper explores the views and experiences of 11 Montessori teachers in integrating computers in their classroom. The paper maintains that Maria Montessori would likely embrace computer technology in the classroom and that the current question should be when, where, and how children should be introduced to computer experiences rather than whether they should be exposed to computers. The concerns of Montessorians with regard to educational technology are presented, including insecurity when encountering the unknown and concerns about diluting the purity of the Montessori philosophy and method.
Parent and Teacher Communications	Neugebauer, Roger Taking Communication to a New Level—Putting Technology To Work Child Care Information Exchange...2000	Recommends communication technologies to extend interaction with teachers and parents. Reports that centers have embraced technology, and identifies three benefits of phone and three of video technologies. Discusses the influence of the Internet on the early childhood care centers. Notes possible problems, but observes that judicious use enhances direct communication.
Long term benefits of technology in the classroom and for staff development.	<u>Barnett, Harvey</u> ; Investing in Technology: The Payoff in Student Learning. ERIC Digest.	This study discusses studies examining the effects of learning with computers, when technology is used as a tool rather than a tutor. Whether students learn from computers or with computers, the research cited indicates the following conditions under which computer technology is most likely to have a positive impact on learning access; integration; broad-based reform; the long term; professional development; teaching style; balance; and vision.

**9.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.

EDTECHPROFILE will be the California Montessori Project’s most important source of information about quantity and quality of instructional technology. All software purchased and used will be state approved as meeting California content standards and/or aligned to the standards. As an elementary school and Middle School, the California Montessori Project will continue to coordinate with its local high schools to ensure students’ advanced coursework is approved for high school credit.

**Goal:** Increase ability to offer specialized or rigorous academic courses through the use of technology, including opportunities for students to work on assignments at home or on distance learning.

**Objective:** Students in grades 4 through 8 are engaged in a variety of projects and course work including learning technologies that can be utilized in the home or through distance learning.

**Benchmarks:**

June '12	Students in grades 7 and 8 complete projects and/or simulations in Language Arts and
----------	--

California Montessori Project Technology Plan – 2011-2014

	Math.
June '13	Students in grades 6, 7 and 8 complete projects and/or simulations in Language Arts and Math. Students in grades 7 and 8 participate in activities such as WebQuest and distance learning courses.
June '14	Students in 4 <sup>th</sup> through 8 <sup>th</sup> grades complete projects and/or simulations in Language Arts and Math. Students in 4 <sup>th</sup> through 8 <sup>th</sup> grades participate in activities such as WebQuest and distance learning courses

Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
9.b.1	Staff development in technology and curriculum integration.	Technology Advisor	July '11- June '14	EDTECHPROFILE records, attendance records of on site training
9.b.1	Staff research Internet resources (simulations, WebQuests, lessons, courses, etc.).	Technology Advisor	July '11- June '14	Lesson plans.
9.b.1	Students in grades 7 & 8 complete projects and/or simulations	Teachers	June '12	Completed assignments.
9.b.1	Students in grades 6, 7 & 8 complete projects and/or simulations	Teachers	June '13	Completed assignments.
9.b.1	Students in grades 7 & 8 participate in WebQuest activities and distance learning programs.	Teachers	June '14	Completed assignments.
9.b.1	Students in 4 <sup>th</sup> through 8 <sup>th</sup> grades complete projects and/or simulations.	Teachers	June '14	Completed assignments
9.b.1	Students in 4 <sup>th</sup> through 8 <sup>th</sup> grades complete WebQuest activities and distance learning courses	Teachers	June 30, 2014	Completed assignments

Research Support	Citation	Annotation
Students who use computer-based instruction, learn in a technology rich environment, use simulation and other high order thinking technologies learn faster, and achieve higher test scores than those who do not.	<i>Milken Exchange on Education Technology</i> , 1999 <a href="http://www.Milkenexchange.org">www.Milkenexchange.org</a>	An analysis of the five largest scale studies of education technology to date.
Educational technology has been found to have positive effects on student attitudes toward learning.	<b>2000 Research Report on the Effectiveness of Technology in Schools.</b> <a href="http://www.nitc.state.ne.us/news/0009EC_2000%Research_Reop">www.nitc.state.ne.us/news/0009EC_2000%Research_Reop</a>	Evidence is the strongest in Language arts and mathematics and for telecommunication and video technologies.

## Appendix C – Criteria for EETT Funded Technology Plans

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

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

1. <b>PLAN DURATION CRITERION</b>	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
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)	4	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 7/1/11-6/30/14.
2. <b>STAKEHOLDERS CRITERION</b> <b>Corresponding EETT Requirement(s): 7 and 11 (Appendix D).</b>	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Not Adequately Addressed</b>
Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.	7	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.

<b>3. CURRICULUM COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>a. Description of teachers’ and students’ current access to technology tools both during the school day and outside of school hours.</b>	8	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>b. Description of the district’s current use of hardware and software to support teaching and learning.</b>	11	The plan describes the typical frequency and type of use (technology skills/information literacy/integrated into the curriculum).	The plan cites district policy regarding use of technology, but provides no information about its actual use.
<b>c. Summary of the district’s curricular goals that are supported by this tech plan.</b>	12	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.
<b>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.</b>	13	The plan delineates clear goals, measurable objectives, annual benchmarks, and a clear implementation plan for using technology to support the district’s curricular 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.
<b>e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.</b>	22	The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan detailing how and when students will acquire technology skills and information literacy skills.	The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to accomplish the goals.

<p><b>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 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 (AB 307, optional in 2007-08 tech plan, required in all tech plans 2008-09 and after)</b></p>	<p>24</p>	<p>The plan describes or delineates clear goals outlining how students 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 (as stated in AB 307).</p>	<p>The plan suggests that students 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><b>g. List of goals and an implementation plan that describe how the district will address Internet safety, including how to protect online privacy and avoid online predators. (AB 307, optional in 2007-08 tech plan, required in all tech plans 2008-09 and after)</b></p>	<p>25</p>	<p>The plan describes or delineates clear goals outlining how students will be educated about Internet safety (as stated in AB 307).</p>	<p>The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals.</p>
<p><b>h. Description of or goals about the district policy or practices that ensure equitable technology access for all students.</b></p>	<p>25</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 accomplishing the plan’s goals.</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 taken to accomplish the goals.</p>
<p><b>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</b></p>	<p>27</p>	<p>The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan for using technology to support the district’s student record-keeping and assessment efforts.</p>	<p>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.</p>

California Montessori Project Technology Plan – 2011-2014

<b>student academic needs.</b>			
<b>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.</b>	29	The plan delineates clear goal(s), measurable objective(s), 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.
<b>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.</b>	30	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.

<b>4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 5 and 12 (Appendix D).	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.</b>	31	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 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>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 through 3j) of the plan.</b>	32	The plan delineates clear goal(s), measurable objective(s), 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 through 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.
<b>c. Describe the process that will be used to monitor</b>	35	The monitoring process, roles, and responsibilities are	The monitoring process either is absent, or lacks

<p><b>the Professional Development (Section 4b) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.</b></p>		<p>described in sufficient detail.</p>	<p>detail regarding who is responsible and what is expected.</p>
--	--	--	--

<p><b>5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 6 and 12 (Appendix D).</p>	<p><b>Page in District Plan</b></p>	<p><b>Example of Adequately Addressed</b></p>	<p><b>Example of Not Adequately Addressed</b></p>
<p><b>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 &amp; 4) of the plan.</b></p>	<p>36</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>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.</b></p>	<p>39</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><b>c. List of clear annual benchmarks and a timeline for obtaining the</b></p>	<p>43</p>	<p>The annual benchmarks and timeline are specific and realistic. Teachers</p>	<p>The annual benchmarks and timeline are either absent or so vague that it would be difficult to</p>

California Montessori Project Technology Plan – 2011-2014

<p><b>hardware, infrastructure, learning resources and technical support required to support the other plan components as identified in Section 5b.</b></p>		<p>and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when.</p>	<p>determine what needs to be acquired or repurposed, by whom, and when.</p>
<p><b>d. Describe the process that will be used to monitor Section 5b &amp; the annual benchmarks and timeline of activities including roles and responsibilities.</b></p>	<p>44</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>

<p><b>6. FUNDING AND BUDGET COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 7 &amp; 13, (Appendix D)</p>	<p><b>Page in District Plan</b></p>	<p><b>Example of Adequately Addressed</b></p>	<p><b>Example of Not Adequately Addressed</b></p>
<p><b>a. List established and potential funding sources.</b></p>	<p>45</p>	<p>The plan clearly describes resources that are available or could be obtained to implement the plan.</p>	<p>Resources to implement the plan are not clearly identified or are so general as to be useless.</p>
<p><b>b. Estimate annual implementation costs for the term of the plan.</b></p>	<p>45</p>	<p>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.</p>	<p>Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed.</p>
<p><b>c. Describe the district's replacement policy for obsolete equipment.</b></p>	<p>47</p>	<p>Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components.</p>	<p>Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented.</p>
<p><b>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.</b></p>	<p>48</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>

<b>7. MONITORING AND EVALUATION COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 11 (Appendix D).	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>a. Describe the process for evaluating the plan’s overall progress and impact on teaching and learning.</b>	49	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>b. Schedule for evaluating the effect of plan implementation.</b>	49	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.
<b>c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.</b>	50	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.

<b>8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION</b> Corresponding EETT Requirement(s): 11 (Appendix D).	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>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.)</b>	51	The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers or potential future outreach efforts.	There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the use of technology.

<p>9. <b>EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA</b>                      Corresponding EETT Requirement(s): 4 and 9 (Appendix D).</p>	<p><b>Page in District Plan</b></p>	<p><b>Example of Adequately Addressed</b></p>	<p><b>Not Adequately Addressed</b></p>
<p><b>a. Summarize the relevant research and describe how it supports the plan’s curricular and professional development goals.</b></p>	<p>52</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>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.</b></p>	<p>54</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>

California Montessori Project Technology Plan – 2011-2014

*Appendix J - Technology Plan Contact Information (Required)*  
**Education Technology Plan Review System (ETPRS)**  
**Contact Information**

County & District Code: 09 – 61838\*\*\* all codes  
School Code (Direct-funded charters only):  
LEA Name: Buckeye Union Elementary, San Juan Unified, Sacramento City, and Elk Grove Unified  
\*Salutation: Ms.  
\*First Name: Meredith  
\*Last Name: Jolly  
\*Job Title: Technology Advisor  
\*Address: 4718 Engle Rd  
\*City: Carmichael  
\*Zip Code: 95608  
\*Telephone: 916-971-2432  
Fax: 916-971-2436  
\*E-mail: mjolly@cacmp.org

Please provide backup contact information.

1st Backup Name: Kim Zawilski, Principal, Shingle Springs Campus  
E-mail: kzawilski@cacmp.org  
2nd Backup Name:  
E-mail:

\* Required information in the ETPRS