



Technology Plan 2005-2008

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

**CMP Technology Advisory Council
Submitted April 6, 2005**

**California Montessori Project
Technology Plan
January, 2005 – June 30, 2008**

1. PLAN DURATION CRITERION

Background:

The California Montessori Project presently serves 1,121 K – 8th grade children and their families in Northern California. 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 is sponsored by the Wheatland School District in Yuba County, and has 5 campuses: three urban campuses, one inner city campus, and one rural campus.

All faculty 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 is in the process of obtaining WASC and MSAC accreditation. The California Montessori Project was eligible for the Distinguished School award for the 2003-04 school year.

In accordance with 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 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 math, science, reading comprehension and language skills in the 3rd through 8th grades.

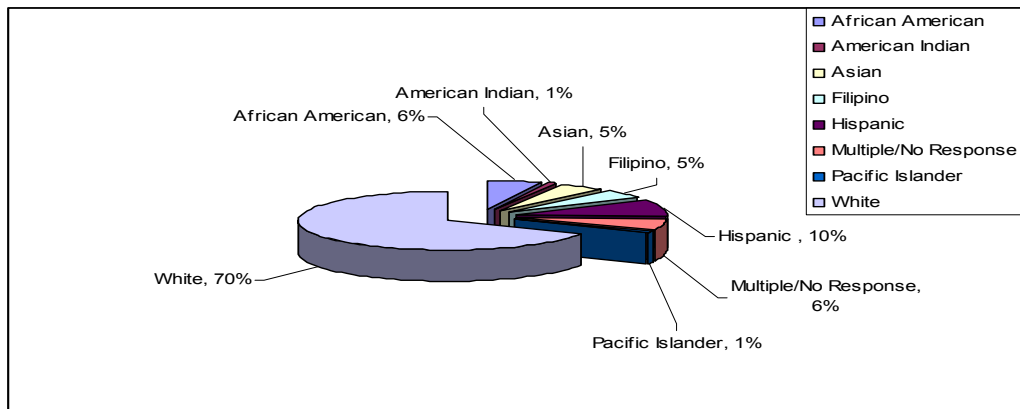
Demographic Data:

2004-2005 CBEDS Data:

California Montessori Project Campus	Grades	Enrollment	School District
American River Campus - Urban	K-8	257	San Juan
Capitol Campus – Inner City	K-6	132	Sacramento
Carmichael Campus – Urban	K-8	244	San Juan
Elk Grove Campus – Urban	K-8	215	Elk Grove
Shingle Springs Campus – Rural	K-8	273	Buckeye
Total All Campuses		1121	

Student population:

American Indian: 1%	Asian: 5%	African American: 6%
Filipino: 2%	Hispanic: 10%	Pacific Islander: 1%
White: 70%		Multiple/No Response: 6%



- Students eligible for national school lunch program:

116	Free Reported	= 10%
74	Reduced Reported	= 7%
	Total Eligible	= 17%
- English Learners: = 0% reported for the 2005 Language Census
- Fluent-English-Proficient = Less than ½ % (5 reported for 2005 Language Census)
- Teachers: = 58 FTE
- Pupil/Teacher Ratio: = K-3 not to exceed 20:1, 4-8 not to exceed 27:1
- Class Size Average: = 1121/58 = 19.33 all grades K-8
- Employees: = 43 classified staff at CBEDS
64 certificated staff at CBEDS
9 administrative staff at CBEDS

1.a. The California Montessori Project's use of education technology for the next 3 ½ years: January 1, 2005-June 30, 2008

Vision for Technology Use:

This technology plan is envisioned to guide the California Montessori Project for the next three and one-half years. As a result, we anticipate that by June of 2008:

- Every student will have access to a computer with online capability at school.
- An increased number of students will have access to online resources at home. Middle school students will each be assigned a notebook computer. The California Montessori Project (CMP) will facilitate a loaner program where students may borrow the school's AlphaSmarts for use at home. In addition, equipment that has become obsolete, and is being replaced by the school, will be available for home use.
- Students will use technology tools to 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 ½ years as a result of technology use:

- Increased student use of computers in classrooms and libraries will improve their mastery of California Content Standards as measured by the STAR and Montessori assessments.
- Students will become more proficient in computer skills and applications.
- Students will experience hands-on cultural experiences through the use of technology.

Expected staff outcomes in 3 ½ 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.
- 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:

- The California Montessori Project will continue to upgrade outdated computers and network devices.
- The California Montessori Project is committed to the goal of increasing the student to computer ratio to 5:1 throughout the schools, placing a teacher's workstation into each classroom, and providing at least four computers in each library.
- 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 provide training in basic networking, workstation maintenance, software applications, best practices in technology integration, and online resources to all teaching staff.

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- The California Montessori Project Technology Task Force will develop and adopt 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 (Lightspan, Edusoft, Big Chalk) and will purchase software solutions which support student learning in California Content Standards.

Expected funding/budget outcomes in 3½ years:

Technology curriculum, professional development, software, books, and Internet access will be supported by the California Montessori Project's General Fund, Title I, lottery funds, grants, donations, and parent fundraising.

Expected monitoring and assessment outcomes in 3 ½ years:

- Annual increases in teachers' technology proficiencies per the CTAP2 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.

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 all members of the Technology Task Force, the Technology Advisor, the Executive Director, five Principals, one Administrative Assistant, four Teachers, one Parent Representative, and the Chairperson of the Technology Committee from each of the five campuses.

All families are required to participate for 40 hours per year in the operation of the school. At each campus, participating parents are organized into volunteer committees. One of these committees is the Technology Committee which is made up of 4 – 5 members who work in various technology areas in their careers. This committee reports directly to the Campus Advisory Council which is made up of two parents, two teachers and the principal of each campus. All stakeholders are invited to these monthly meetings and their input on technology development, as well as that of students and teachers, was solicited. As a result of these committees the Technology Task Force represents all layers of the schools' communities.

3. CURRICULUM COMPONENT CRITERIA

3.a. Description of teachers’ and students’ access to technology tools:

Students have access to computers throughout the school day, and both before and after school in Hourly Programs offered at the schools. While the general education curriculum is aligned at all five of our campuses, the use of technology is in its infancy at some of our campuses. 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.

Most classrooms have at least one workstation connected to the Internet shared by both students and teachers. Most computers are newer than three years old and any computer that is greater than five years old is not included in our configurations. None of our campuses currently offers a computer lab where group instruction can take place and only a few staff teachers have the training necessary to run a computer lab.

Some classrooms have a laser printer or are configured to print to the large capacity printer in the school office. Each campus has a small library, but none have computers for library services.

One computer at most school campuses is currently dedicated to the special education department for staff use and minimal student use. These special education department computers are networked to obtain Internet and online resources. Students with special needs and English Language Learners utilize computers in the classrooms in addition to occasional use of the Special Education computer.

2004-2005 CBEDS Data:

California Montessori Project Campus	Enrollment
American River Campus	257
Capitol Campus	132
Carmichael Campus	244
Elk Grove Campus	215
Shingle Springs Campus	273
Total All Campuses	1,121

Student Access To Technology:

American River Campus

Student Access To Technology In:	Grade Levels	Number of Computer Workstations	Student to Computer Ratio
Picasso Class with 19 students	K	0	19:0
Cassat Class with 18 students	K	0	18:0
Rockwell Class with 19 students	K/1 st	0	19:0
DaVinci Class with 20 students	K/1 st	1	20:1
Matisse Class with 18 students	1 st /2 nd	2	9:1
Kinkade Class with 21 students	1 st /2 nd /3 rd	2	11:1
Monet Class with 20 students	2 nd /3 rd	2	10:1
VanGogh Class with 20 students	2 nd /3 rd	2	10:1
Ansel Adams Class with 21 students	3 rd /4 th	4	5:1
Renoir Class with 20 students	4 th /5 th	4	5:1
O'Keefe Class with 26 students	5 th /6 th	4	7:1
Middle School Class with 30 students	7 th /8 th	4	8:1
Special Ed Resource Room Serving 24 students throughout the day	K-8	0	24:0

Capitol Campus

Student Access To Technology In:	Grade Levels	Number of Computer Workstations	Student to Computer Ratio
Poppy Class with 31 students	K	0	31:0
Nugget Class with 35 students	1 st – 3 rd	2	18:1
Pioneer Class with 32 students	1 st – 3 rd	0	32:0
Fort Sutter Class with 27 students	4 th – 6 th	2	14:1
Special Ed Resource Room Serving 6 students throughout the day	K-6	1	6:1

Carmichael Campus

Student Access To Technology In:	Grade Levels	Number of Computer Workstations	Student to Computer Ratio
Buttercup Class with 18 students	K	1	18:1
Daisy Class with 20 students	K	1	20:1
Bluebells Class with 20 students	K/1 st	1	20:1
Sunflower Class with 36 students	1 st /2 nd	2	18:1
Orchid Class with 36 students	1 st /2 nd	1	36:1
Rose Class with 36 students	3 rd /4 th	2	18:1
Birds of Paradise Class with 34 students	4 th /5 th	3	11:1
Iris Class with 30 students	6 th /7 th	4	8:1
Special Ed Resource Room Serving 14 students throughout the day	K-8	1	14:1

Elk Grove Campus

Student Access To Technology In:	Grade Levels	Number of Computer Workstations	Student to Computer Ratio
Emerald Class with 30 students	K/1 st	0	30:0
Diamond Class with 28 students	K/1 st	0	28:0
Ruby Class with 28 students	K/1 st	1	28:1
Garnet Class with 35 students	1 st /2 nd /3 rd	2	18:1
Aquamarine Class with 33 students	2 nd /3 rd	1	33:1
Topaz Class with 36 students	4 th /5 th	2	18:1
Sapphire Class with 27 students	6 th /7 th /8 th	2	14:1
Amethyst Class Serving Club M (before and after school care)	Club M	1	30:1
Special Ed Resource Room Serving 25 students throughout the day	K-8	1	25:1

Shingle Springs Campus

Student Access To Technology In:	Grade Levels	Number of Computer Workstations	Student to Computer Ratio
Mimosa Class with 36 students	K/1	2	18:1
Cedar Class with 36 students	K/1	2	18:1
Laurel Class with 18 students	3	1	18:1
Aspen Class with 35 students	2/3	2	18:1
Willow Class with 28 students	2/3	2	14:1
Sycamore Class with 27 students	4/5	3	9:1
Eucalyptus Class with 27 students	4/5	3	9:1
Oak Class with 27 students	5/6	3	9:1
Sequoia Class with 38 students	7/8	5	8:1
Special Ed Resource Room Serving 30 students throughout the day	K-8	1	30:1

3.b. Description of CMP’s current use of hardware and software to support teaching and learning

Most CMP classrooms have networked computers installed in their classrooms (see the charts above). The computers are predominantly used for research, keyboarding instruction, and report writing. A few of the classrooms utilize their computers for curriculum enhancement, student presentation project work and digital photography instruction. These classroom computers are shared with the teachers.

All of the networked computers have access to the Internet. Less than 10% of these classroom desktops have Microsoft Office XP Standard installed. Another 20% of the desktops have WordPerfect word processing software. The computers provide the students access to Internet resources and a variety of curriculum related software programs specifically designed for student use.

CMP’s K-8 curriculum is fully aligned to California State Standards in English/language arts, math, science and history/social science. CMP has developed quarterly assessments for testing

student progress in meeting the standards in math and language arts. Teachers currently monitor student progress via manual recordkeeping books. One Middle School campus is piloting the use of GradeBook Wizard to record student work completion and grades, which information is then made available to parents through this secure online service.

3.c. Summary of the California Montessori Project’s curricular goals and academic content standards in various district and site comprehensive planning documents.

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.

3.d. List of goals and implementation plan for using technology

Introduction

Attention is being focused on repetition of basic math facts and reading skills 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. Focus will begin with grades 3 through 6 because this is a critical age at which skills need to be solidified to keep up with grade level activities. The expectation is that students in grades K – 2 will receive ample instruction in these basic skills through use of individualized Montessori lessons and materials. For grades 7 and 8, the expectation is that these basic skills have been mastered and software for repetition is not as critical for grade level performance.

3.d.1 Goal: Technology will be integrated into the classroom to support California standards-based instruction in language arts and mathematics.

BENCHMARKS:

June '05	Committee will be appointed to research & select state approved math and language arts remediation and enrichment software.
June '06	Selected language arts and mathematics remediation and enrichment software will be incorporated into 100% of the 3 rd through 6 th grade classrooms.
June '07	Selected language arts and mathematics remediation and enrichment software will be incorporated into 100% of the 1 st and 2 nd grade classrooms.
June '08	Selected language arts and mathematics remediation and enrichment software will be incorporated into 100% of 7 th and 8 th grade classrooms.

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i. and j. List of activities and a timeline for implementing planned strategies and activities for 3.d.

Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
3.d.1	Committee appointed to research potential state approved math and reading remediation and enrichment software.	Staff and Admin.	June '05	Committee will review potential software based on greatest needs according to STAR scores and teacher surveys.
3.d.1	Software selected and approved.	Staff, Admin, and Governing Board	Oct. '05	Committee presents its recommendations to administration and administration presents it to the Governing Board. Governing Board reviews discusses and responds to recommendation.
3.d.1	Software purchased.	Admin.	Nov. '05	Software installed in all 3 rd through 6 th grade classrooms.
3.d.1	Staff development is provided for 3 rd through 6 th grade teachers in use of selected software.	Staff and Admin.	Dec. '05	In-service training will incorporate software training for the upper elementary grades.
3.d.1	Students begin utilization of software in 3 rd – 6 th grade classrooms.	Staff	Jan. '06	Teachers monitor and collect samples of student work to share and evaluate among themselves.
3.d.1	Evaluate software effectiveness based on informal student assessments in math and reading basic skills.	Staff	June '06	Teachers use basic math skills assessment (Straight Forward Math Facts Assessment) and San Diego Quick reading assessment for program evaluation.
3.d.1	Purchase and install software in 1 st and 2 nd grade classrooms.	Admin. And Tech Staff	Sept. '06	Purchase orders and work orders will be available for review.
3.d.1	Staff development is provided for 1 st and 2 nd grade teachers in use of selected software.	Staff and Admin.	Oct. '06	In-service training will incorporate software training for the 1 st and 2 nd grades.
3.d.1	Students begin utilization of software in 1 st and 2 nd grade classrooms.	Staff	Nov. '06	Teachers monitor and collect samples of student work to share and evaluate among themselves.
3.d.1	Evaluate software effectiveness based on informal student assessments in math/reading basic skills.	Staff	June '07	Teachers use basic math skills assessment and San Diego Quick reading assessment for program evaluation.
3.d.1	Purchase and install software in 7 th and 8 th grade classrooms.	Admin. and Tech staff	Sept. '07	Purchase orders and work orders will be available for review.
3.d.1	Staff development is provided for 7 th and 8 th grade teachers in use of selected software.	Staff and Admin.	Oct. '07	In-service training will incorporate software training for the 7 th and 8 th grades.
3.d.1	Students begin utilization of software in 7 th and 8 th grade classrooms.	Staff	Nov. '07	Teachers monitor and collect samples of student work to share and evaluate among themselves.
3.d.1	Evaluate software effectiveness based on informal student assessments in math and reading basic skills.	Staff	June '08	Teachers use basic math skills assessment and San Diego Quick reading assessment for program evaluation.

Introduction

Multi-cultural education is an integral component of the Montessori curriculum. Montessori classrooms begin studying geography and the customs of other cultures in the Kindergarten years. This study continues throughout the grade levels and includes studying the fundamental needs of humans, the timeline of all humans in all cultures, cross-cultural celebrations, the global community, and the study of ancient civilizations. Using technology to bring the global community and its cultures into the classroom environment will greatly enhance this component of the Montessori curriculum. Introducing this technology to the upper elementary grades initially will give the schools the opportunity to put the technology into place immediately because the students are able to work more independently. As the upper grades become proficient with the use of this technology, they will be able to share the technology with the teachers in the lower grades and even allow the older students to teach the younger students how to do the lessons using technology.

3.d.2 Goal: Technology will be integrated into all K-8 classrooms to enhance cultural diversity studies and curriculum.

BENCHMARKS:

June '05	The current cultural education curriculum will be reviewed and a minimum of two lessons written which will incorporate technology into current curriculum goals for multicultural education and distributed to staff in all 4 th through 8 th grades.
June '06	100% of 4 th through 8 th grade teachers will implement at least two lessons/units of a technologically (integrated) based cultural curriculum. Cultural education curriculum using technology will be researched, written and distributed to staff in 2 nd and 3 rd grades.
June '07	100% of teachers will implement a technologically (integrated) based cultural curriculum. Cultural education curriculum using technology will be researched, written and distributed to staff in Kindergarten and 1 st grade.
June '08	100% of Kindergarten and 1 st grade teachers will implement a technologically (integrated) based cultural curriculum.

i. and j. List of activities and a timeline for implementing planned strategies and activities for 3.d.2

Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
3.d.2	Committee appointed to research and create a technology integrated multicultural curriculum.	Staff and Admin.	June '05	Committee will research and write at least two technology based multicultural lessons to be used in 4 th through 8 th grades.
3.d.2	Technology integrated multi cultural lessons approved by 4 th – 8 th grade curriculum committees.	Staff	Aug. '05	Curriculum committee reviews and makes any necessary changes and then approves multicultural lessons using technology.
3.d.2	Necessary technology for the lessons is determined and purchased.	Staff and Admin.	Sept. '05	Technology purchased.

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Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
3.d.2	Staff development regarding the technology based lessons for 4 th through 8 th grades.	Staff and Admin.	Oct. '05	In-service training provided for 4 th – 8 th grade teachers.
3.d.2	Technology integrated multicultural lessons incorporated into classrooms.	Staff	Nov. '05	Students begin utilizing technology for multicultural lessons.
3.d.2	Evaluate lesson effectiveness based on informal student assessments.	Staff	June '06	Teachers monitor and collect samples of student work to share and evaluate among themselves.
3.d.2	Committee appointed to research and create a technology based multicultural curriculum.	Staff and Admin.	June '06	Committee will research and write at least two technology based multicultural lessons to be used in 2 nd and 3 rd grades.
3.d.2	Technology integrated multicultural lessons approved by 2 nd and 3 rd grade curriculum committee.	Staff	Aug. '06	Curriculum committee reviews and makes any necessary changes and then approves multicultural lessons using technology.
3.d.2	Necessary technology for the lessons is determined and purchased if required.	Staff and Admin.	Sept. '06	Technology purchased.
3.d.2	Staff development regarding the tech based lessons for 2 nd and 3 rd grades.	Staff and Admin.	Oct. '06	In-service training provided for 2 nd -3 rd grade teachers.
3.d.2	Technology integrated multicultural lessons incorporated into 2 nd /3 rd classrooms.	Staff	Nov. '06	Students begin utilizing technology for multicultural lessons.
3.d.2	Evaluate lesson effectiveness based on informal student assessments.	Staff	June '07	Teachers monitor and collect samples of student work to share and evaluate among themselves.
3.d.2	Committee appointed to research and create a technology integrated multicultural curriculum for Kindergarten and 1 st grades.	Staff and Admin.	June '07	Committee will research and write at least two technology based multicultural lessons to be used in Kindergarten and 1 st grade.
3.d.2	Technology integrated multicultural lessons approved by K/1 curriculum committee.	Staff	Aug. '07	Curriculum committee reviews and makes any necessary changes and then approves multicultural lessons using technology.
3.d.2	Necessary technology for the lessons is determined and purchased if required.	Staff and Admin.	Sept. '07	Technology purchased.
3.d.2	Staff development regarding the technology based lessons for 2 nd and 3 rd grades.	Staff and Admin.	Oct. '07	In-service training provided for 2 nd -3 rd grade teachers.
3.d.2	Multicultural lessons incorporated into 2 nd /3 rd classrooms.	Staff	Nov. '07	Students begin utilizing technology for multicultural lessons.
3.d.2	Evaluate lesson effectiveness based on informal student assessments.	Staff	June '08	Teachers monitor and collect samples of student work to share and evaluate among themselves.

Introduction

Science is an integrated hands-on component of the Montessori curriculum in the younger grades. Once a student enters the upper elementary grades in the Montessori program, they are in need of a more structured and comprehensive program. CMP hopes to incorporate a state approved comprehensive science program for 5th through 8th grade students. The goal is to set up a program using technology that follows the Montessori philosophy meaning it is individualized, hands on, in-depth and self tracking.

3.d.3 Goal: California content standards and Montessori curriculum in science will be enhanced through technology. Technology will be integrated into all K-8 classrooms to enhance Montessori science curriculum and California content standards.

BENCHMARKS:

June '05	Committee to research appropriate state approved comprehensive science program for 5 th through 8 th grades will be appointed.
June '06	Technology components of comprehensive science program will be incorporated into 100% of 5 th grade classrooms.
June '07	Technology components of comprehensive science program will be incorporated into 100% of 6 th grade classrooms.
June '08	Technology components of comprehensive science program will be incorporated into the 100% of 7 th and 8 th grade classrooms

i. and j. List of activities and a timeline for implementing planned strategies and activities for 3.d .3

Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
3.d.3	Committee appointed to research state approved comprehensive science software-based curriculum.	Staff and Admin.	June '05	Committee will research software programs.
3.d.3	Software (comprehensive science program with technology components) selected and approved.	Staff, Admin., & Governing Board	Oct. '05	Committee presents its recommendations to administration and administration presents it to the Governing Board. Governing Board reviews, discusses and responds to request.
3.d.3	Software (comprehensive science program with technology components) purchased.	Admin. & Technology Advisor	Nov. '05	Software installed in all 5 th grade classrooms.
3.d.3	Staff development is provided for all 5 th grade teachers in use of selected software.	Staff and Admin.	Dec. '05	In-service training will incorporate software training for the 5 th grade instructors.
3.d.3	Students begin utilization of software in all 5 th grade classrooms.	Staff	Jan. '06	Teachers monitor and collect samples of student work to share and evaluate among themselves.
3.d.3	Evaluate software effectiveness based on informal student assessments and results of science section of STAR tests.	Staff	June '06	Teachers use student samples and informal observation to monitor effectiveness of program. Students take STAR tests in science.

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Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
3.d.3	Purchase and install software in 6 th grade classrooms.	Admin. and Technology Advisor	Aug. '06	Software installed in all 6 th grade classrooms.
3.d.3	Staff development is provided for sixth grade teachers in use of selected software.	Staff and Admin.	Aug. '06	In-service training will incorporate software training for the 6 th grades.
3.d.3	Students begin utilization of software in 6 th grade classrooms.	Staff	Sept. '06	Teachers monitor and collect samples of student work to share and evaluate among themselves.
3.d.3	Evaluate software effectiveness based on informal student assessments and results of in class assessments.	Staff	June '07	Teachers use student samples and informal observation to monitor effectiveness of program.
3.d.3	Purchase and install software in 7 th and 8 th grade classrooms.	Admin. and Technology Advisor	Aug. '07	Software installed in all 7 th and 8 th grade classrooms.
3.d.3	Staff development is provided for 7 th & 8 th grade teachers in use of selected software.	Staff and Admin.	Oct. '07	In-service training will incorporate software training for the 7 th and 8 th grades.
3.d.3	Students begin utilization of software in 7 th and 8 th grade classrooms.	Staff	Nov. '07	Teachers monitor and collect samples of student work to share and evaluate among themselves.
3.d.3	Evaluate software effectiveness based on informal student assessments and results of 7 th and 8 th grade science section of STAR tests.	Staff	June '08	Teachers use STAR test benchmarks to assess program results.

3.e. List of goals and implementation plan regarding student acquisition of technological and information literacy skills.

The use of information literacy 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. California Montessori Project currently has no comprehensive and cohesive plan for teaching such 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 resources for research in the core content areas.

BENCHMARKS

June '05	Big 6 Information Literacy Skills program will be approved and adopted.
June '06	Big 6 program will be implemented in 100% of 4 th through 8 th grade classes.
June '07	Big 6 program will be implemented in 100% of 2 nd and 3 rd grade classes.
June '08	Big 6 program will be implemented in 100% of Kindergarten and 1 st grade classes.

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 California Montessori Project emphatically endorses the adoption and implementation of a grade level continuum of basic computer skills for its students.

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

BENCHMARKS

June '05	Committee will be appointed to research and create a technology skills program. (Lessons will address keyboarding and word processing skills at first and work into the full spectrum of Microsoft Office programs including spreadsheets, databases, publishing and multimedia components such as PowerPoint.)
June '06	Technology skills program will be implemented in 100% of 4 th through 8 th grade classes.
June '07	Technology skills program will be implemented in 100% of 2 nd and 3 rd grade classes.
June '08	Technology skills program will be implemented in 100% of Kindergarten and 1 st grade classes.

i. And j. List of activities and a timeline for implementing planned strategies and activities for 3.e.1 and 3.e.2

Goal	Implementation Activities	Responsibility	Timeline	Evidence of Activities
3.e.1 3.e.2	Committee appointed to research and create Big 6 and technology skills continuum program for 4 th through 8 th grades.	Staff and Admin.	June '05	Committee forms and creates at least two comprehensive lesson plans based on each goal.

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Goal	Implementation Activities	Responsibility	Timeline	Evidence of Activities
3.e.1 3.e.2	Staff development provided for 4 th through 8 th grade teachers.	Staff and Admin.	Aug. '05	In service training at beginning of year.
3.e.1 3.e.2	Evaluation of information literacy skills and technology skills of 4 th through 8 th grades.	Staff	June '06	Teachers give end of year assessments in technology skills and assign a project using the Big6 Information Literacy program.
3.e.1 3.e.2	Committee appointed to research and create Big 6 and technology skills program for 2 nd and 3 rd grades.	Staff and Admin.	June '06	Committee forms and creates at least two comprehensive lesson plans based on each goal.
3.e.1 3.e.2	Staff development provided for 2 nd and 3 rd grade teachers.	Staff and Admin.	Aug. '06	In-service training at beginning of year.
3.e.1 3.e.2	Evaluation of information literacy skills and technology skills for 2 nd and 3 rd grades.	Staff	June '07	Teachers give end of year assessments in technology skills and assign a project using the Big6 Information Literacy program.
3.e.1 3.e.2	Committee appointed to research and create Big 6 and technology skills program specific to Kindergarten and 1 st grade.	Staff and Admin.	June '07	Committee forms and creates at least two comprehensive lesson plans based on each goal.
3.e.1 3.e.2	Staff development provided for Kindergarten and 1 st grade teachers.	Staff and Admin.	Aug. '07	In service training at beginning of year.
3.e.1 3.e.2	Evaluation of information literacy skills and technology skills of Kindergarten and 1 st grades.	Staff	June '08	Teachers give end of year assessments in technology skills and assign a project using the Big6 Information Literacy program.

3.f. List of goals and implementation plan for programs and utilization of technology to ensure appropriate access for students.

All students and teachers in the California Montessori Project will have safe and secure access to computers and related technology. CMP will achieve a 5:1 student to computer ratio through the purchase of computers for every classroom, a mobile computer lab for each campus, laptop computers for middle school students and Alpha Smarts. Ratio of dedicated classroom computers to students will be 5:1 in grades K-6, and 1:1 in the Middle Schools with each Middle School student having a laptop assigned. . Teachers will also be equipped with a laptop per teacher and will have access to three LCD projectors per campus.

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.

3.f.1 Goal: All students and teachers will have access to computers

BENCHMARKS:

Aug. '05	Every classroom will have a computer for shared teacher and student use, with separate and secure accounts for teacher access.
Aug. '06	33% of the required additional devices to achieve a 5:1 student to computer ratio are acquired, as resources permit.
Aug. '06	50% of the classroom teachers will have a laptop computer for school use.
Aug. '07	66% of the required additional devices to achieve a 5:1 student to computer ratio are acquired, as resources permit.
Aug. '07	100% of the classroom teachers will have a laptop computer for school use.
Aug. '07	100% of the Middle School students will have a laptop computer assigned for school use.
June '08	Student:computer ratio will be 5:1 at each campus through a combination of classroom computers, mobile labs, library computers, assigned laptops, and Alpha Smarts.

i. and j. List of activities and a timeline for implementing planned strategies and activities for 3.f

Goal #	Implementation Plan/Activities	Resp. Position	Time line	Monitoring and Evaluation activities
3.f.1	Purchase additional classroom computers for each campus to attain shared teacher/student computer resources.	Admin.	July '05	Computers purchased as verified through Purchase Orders.
3.f.1	Install software and secure teacher and student accounts for new classroom computers.	Tech Team	Aug. '05	Computers installed and ready to use.
3.f.1	Determine quantity of computers required to be purchased in order to achieve a 5:1 student to computer ratio in 30% of the classrooms.	Tech Team and Admin.	Jan. '06	Report outlining required resources and estimated costs.
3.f.1	Determine quantity of laptops required to be purchased in order to accommodate 50% of the credentialed teaching staff.	Tech Team and Admin.	Jan. '06	Report outlining required resources and estimated costs.
3.f.1	Order and install additional classroom computers to achieve 5:1 ratio in 30% of the classrooms.	Tech Team	Aug. '06	Computers installed and ready to use.
3.f.1	Order and install laptops for 50% of the credentialed teaching staff.	Tech Team	Aug. '06	Computers installed and ready to use.
3.f.1	Determine quantity of computers required to be purchased in order to achieve a 5:1 student to computer ratio in 60% of the classrooms.	Tech Team and Admin.	Jan. '07	Report outlining required resources and estimated costs.
3.f.1	Determine quantity of laptops required to be purchased in order to provide each	Tech Team	Jan. '07	Report outlining required resources and estimated costs.

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Goal #	Implementation Plan/Activities	Resp. Position	Time line	Monitoring and Evaluation activities
	Middle School student with a personal laptop computer.	and Admin.		
3.f.1	Determine quantity of laptops required to be purchased in order to accommodate 100% of the credentialed teaching staff.	Tech Team and Admin.	Jan. '07	Report outlining required resources and estimated costs.
3.f.1	Order and install additional classroom computers to achieve 5:1 ratio in 60% of the classrooms.	Tech Team	Aug. '07	Computers installed and ready to use.
3.f.1	Order and install personal laptops for each Middle School student enrolled in the CMP Middle School Program.	Tech Team	Aug. '07	Computers installed and ready to use.
3.f.1	Order and install laptops for 100% of the credentialed teaching staff.	Tech Team	Aug. '07	Computers installed and ready to use.
3.f.1	Determine quantity of computers required to be purchased in order to achieve a 5:1 student to computer ratio in 100% of the classrooms.	Tech Team and Admin.	Aug. '07	Report outlining required resources and estimated costs.
3.f.1	Order and install additional classroom computers to achieve 5:1 ratio in 100% of the classrooms.	Tech Team and Admin.	Jan. '08	Computers installed and ready to use.
3.f.1	Review computer inventory to ensure 5:1 student to computer ratio in each classroom environment has been met successfully and plan for additional purchases to maintain that ratio, including plans for recycling devices.	Tech Team and Admin.	June '08 and annually thereafter	Report outlining inventory of computers for student and teacher access.

3.g. Utilize technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs and parent communication.

Currently one of the Middle School classes is running a pilot computerized grade reporting program. Our other 4th – 8th grade teachers currently do not use any software for grading nor for tracking student progress in standard's based and Montessori curricula. It is our goal to have all our K – 8th grade teachers trained in Student Information Systems (SIS) and 4th – 8th grade teachers trained in computerized grade reporting software to accomplish consistency and increased communication.

3.g.1 Goal: All teachers will be provided with and trained to use SIS for tracking attendance and other student data as well as grading software for recording student assessments and assignments, and tracking grades.

BENCHMARKS:

June '05	Campus administrative staff trained in SIS. Pilot program of computerized grade reporting program in Middle School classroom
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June '06	Review of computerized grade reporting program and 100% implementation in all Middle School classrooms.
June '07	Review of computerized grade reporting program alternatives and 100% implementation of computerized grade reporting program in all 4 th through 6 th grade classrooms.

i. and j. List of activities and a timeline for implementing and evaluating planned strategies and activities for 3.g

Goal #	Implementation Plan/Activities	Resp. Position	Time line	Monitoring and Evaluation activities
3.g.1	Campus administrative staff trained on Aeries SIS software program.	Central Admin. Staff	July '05	Training manuals, quick reference guides, accounts, and passwords.
3.g.1	Current Middle School Pilot Program replicated at two additional Middle School campuses.	Tech Team & Middle School Teacher	July '05	Access available at two additional Middle School campuses.
3.g.1	Further training for administrative staff on Aeries and computerized grade reporting program.	Central Admin Staff & Tech Team	Aug. '05	Aeries training manuals and quick reference guides. GradeBook Wizard handouts and instruction manuals.
3.g.1	Training of Middle School teaching staff on computerized grade reporting program.	Middle School Teacher & Vendor	Aug. '05	Gradebook Wizard handouts and instruction manuals.
3.g.1	Research, review, evaluate and recommend alternative computerized grade reporting programs.	Tech Team	Jan. '06	Record Keeping Evaluation Report.
3.g.1	Approve purchase of alternative grade reporting and record keeping system.	Admin. Team	Feb. '06	Approved purchase order.
3.g.1	Acquire software and install for campus use.	Tech Staff	Mar. '06	Software accessible for testing.
3.g.1	Train Middle School teaching staff on computerized grade reporting program.	Tech Team and Vendor	August '06	Training manuals, handouts, and quick reference guides.
3.g.1	Train 4 th through 6 th grade teaching staff on computerized grade reporting program.	Tech Team and Vendor	August '07	Training manuals, handouts, and quick reference guides.
3.g.1	Evaluate progress through staff survey, discussion of issues, and review of accomplishments.	Tech Team, Staff & Admin.	August '07 annually thereafter	Evaluation results report prepared and distributed.

3.h. Utilize technology to make teachers and administrators more accessible to parents.

The California Montessori Project provides a central CMP website where parents may go to obtain registration forms, school-wide newsletters, school calendars, Governing Board agendas, and other information of a general nature. The individual campus links from this website are not currently developed for campus use. The campuses are in the beginning stages of providing links from this website to their campus newsletters and individual class homework pages to help parents access school information, teachers and administrators. The CMP Shingle Springs Middle School is piloting the GradeBook Wizard program, which enables parents to securely view student progress in all subjects. Parents currently have access to teachers and administrators by telephone systems at each campus. They also have access to each Principal and the central administrative offices by email.

3.h.1 Goal: The California Montessori Project will use a variety of technologies to improve home-school communication, including a school-wide website with active links for all campuses and all classrooms, as well as email access for regular parent-teacher and parent-administration correspondence.

BENCHMARKS:

May '05	Technology Team will identify needed updates to "cacmp" website.
August '05	Website will be updated to include active links for each campus. Technology Team will develop system for teachers and staff to email information to campus Administrative Assistants, and Principal for review and posting on website.
August '05	Technology Team will identify needed upgrades to provide each classroom teacher with an email account for parent/teacher correspondence.
January '06	Server will be upgraded as needed, and classroom email accounts will be established, along with teacher access to computers on a regular basis.
January '06	Technology Team will provide training and support for teachers to directly post changes to individual classroom homework pages.
March '06	Administrative staff will pilot the program prior to parent access by ensuring that regular correspondence with teaching staff is taking place in both directions.
June '06	Technology Team will provide links from website to classroom teachers' email accounts.
July '06	Teachers and administrative staff will correspond with parents regularly via email which includes email links from webpage.

3.h.2 Goal: The California Montessori Project will provide a safe and secure technology tool which allows parents to review 4th through 8th grade students' progress and grades.

BENCHMARKS:

July '05	Middle School teachers will receive training on GradeBook Wizard Pilot Program for implementation and piloting at all three Middle School Campuses for the 2005-2006 school year.
January '06	Technology Team and Middle School Teachers will review GradeBook Wizard Pilot Program and identify alternative programs to evaluate and compare.
June '06	Team will summarize comparisons and make a product recommendation to Central Administrative and Technology Team members.
July '06	Team will select and purchase program for implementation and will coordinate training schedule for Middle School Teachers.
August '06	Middle School Teachers will receive training and input student data for 2006-2007 school year.
August 06	Middle School Teachers will provide program orientation and training to parents and students.

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i. and j. List of benchmarks and a timeline for implementing planned strategies and activities for 3.h

Goal #	Implementation Plan/Activities	Resp. Position	Time line	Monitoring and Evaluation activities
3.h.1.	Review current website and compile list of requested modifications.	Tech Team	May '05	Website improvement list.
3.h.1	Review current configuration limitations with MidTown Micro & request upgrade for additional email accounts.	Tech Staff	May '05	Current quantity of email accounts. Projected need for email accounts.
3.h.1.	Technology Team recommends improvements to website.	Tech Team	June '05	Improvement Lists detailed by campus and classroom.
3.h.1.	Additional hours budgeted and provided for Technology staff to redesign website.	Admin.	June. '05	Budget notes.
3.h.1	Additional hours budgeted and provided for Technology Staff to reconfigure, define, and document new email accounts.	Admin Team	June '05	Budget notes.
3.h.1.	Updated website is posted.	Tech Team	July '05	Review Improvement Lists by Technology Team.
3.h.1	Review current classroom configurations and ensure each teacher has access to a computer at school for email correspondence at least twice daily.	Tech Team	July '05	Classroom configuration diagrams. Teacher verification of access and regularly scheduled time for access.
3.h.1.	Create training quick reference lists and provide training and overview to AA's at each campus.	Tech Staff	Aug. '05 Annually thereafter	Training documentation. Number of calls to Tech Staff for assistance.
3.h.1	Create parent update bulletin regarding new features made available to parents and staff (ie, campus-specific links, classroom-specific homework pages, etc.).	Tech Team	Aug.' 05 Annually thereafter	Newsletter insert for all campuses Parent Feedback Survey
3.h.1	Create training quick reference lists and provide training and overview to Teachers at each campus.	Tech Staff	Jan. '06	Training documentation. Number of calls to AA's for assistance.
3.h.1	Define additional email accounts for CMP teaching staff.	Tech Staff	Jan. '06	MidTown Micro configuration parameters. Email account documentation for Principals.

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Goal #	Implementation Plan/Activities	Resp. Position	Time line	Monitoring and Evaluation activities
3.h.1	Create training quick reference & provide training/overview to teachers at each campus. Include guidelines regarding email etiquette & escalation process for parent issues/concerns.	Tech Team	March '06	Training documentation. Number of calls to AA's for assistance.
3.h.1	Conduct pilot program utilizing email between teachers, AA's, Principals and Administration to ensure timely response to emails at all levels.	Tech Team	March '06 – June '06	Review utilization records. Track untimely replies and provide training as necessary.
3.h.1	Create links to teachers' and administrators' email accounts from webpages.	Tech Staff	Jun. '06	Staff bulletin announcing updates.
3.h.1	Advertise links to parents via campus newsletter.	Admin Staff	Aug, '06	Parent newsletter announcing updates. Monitor email usage.
3.h.1	Advertise staff email addresses to parents via campus newsletter.	Admin Staff	Aug, '06	Parent newsletter announcing updates. Monitor email usage.
3.h.1	Monitor email usage and response times via parent correspondence and parent surveys.	Admin Staff	Aug. '06 and annually thereafter	Parent Survey Responses. Parent contacts and feedback conducted by Admin Team.

Goal #	Implementation Plan/Activities	Resp. Position	Time line	Monitoring and Evaluation activities
3.h.2.	Review current year's GradeBook Wizard Pilot Program.	Tech Team	June '05	Student assignment tracking and grades reports. Evaluation of pilot program written by Middle School teaching team.
3.h.2	Additional hours budgeted and provided for Technology Staff to review security and implement strategies for 2 more Middle School Pilot Programs.	Admin Team	June '05	Budget notes.
3.h.2	Provide training and overview to Middle School teachers at two additional campuses.	Tech Team	August '05	Training guides. Gradebook Wizard documentation & support.
3.h.2	Input student database records.	Teaching Staff	August '05	Class roster comparisons. Cycle 1 Assignment Schedules.
3.h.2	Provide training to students and parents.	Teaching Staff	Sept. '05	Quick reference sheets and secure password access information.
3.h.2	Daily input of assignment completion notes and grades.	Teaching Staff	August '05 – June '06	Weekly random printouts of student records. Student/parent feedback on accuracy of student's data.

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Goal #	Implementation Plan/Activities	Resp. Position	Time line	Monitoring and Evaluation activities
3.h.2	Review progress to date, and select alternative programs to evaluate.	Tech Team	January '06	Summary of program to date provided by teaching staff. Industry information on alternative programs.
3.h.2	Summarize GradeBook Wizard Pilot Program Results.	Teaching Staff	June '06	Summary Report.
3.h.2	Review, evaluate and recommend alternative programs.	Tech Team	June '06	Recommendation Report.
3.h.2	Select program for implementation at Middle School Level.	Admin Team	June '06	Recommendation Report.
3.h.2	Develop implementation plan for implementation at Middle School Level.	Tech Team	July '06	Implementation Plan.
3.h.2	Develop implementation plan for implementation at 9-12 level.	Tech Team	July '07	Implementation Plan.

3.i. List of benchmarks and a timeline for implementing planned strategies and activities:

See i and j section following 3d, 3e, 3f, 3g, and 3h above.

3.j. Description of the process that will be used to monitor whether the strategies and methodologies utilizing technology are being implemented according to the benchmarks and timeline:

See i and j section following 3d, 3e, 3f, 3g, and 3h above.

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 Task Force and the California Montessori Project Governing Board in January and June of each year. The Technology Task Force 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 Task Force, along with recommendations for the following year's implementation.

4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA

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

The California Montessori Project's Executive Director, administrative staff, campus principals, teachers, and paraprofessional staff have taken the CTAP² Proficiency Survey during March 2005. In addition, a survey was conducted to determine training and professional development needs of the teaching and paraprofessional staff.

The CTAP² Proficiency Survey for all California Montessori Project staff was taken with 100% of the current staff participating. 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 E-mail. Most staff members are at the introductory level in Publishing, Databases, Spreadsheets, Presentation Software, and Instructional Technology.

Some teachers are aware of regional California Technology Assistance Project (CTAP) course offerings. None have taken advantage of CTAP Online courses or the Educational Technology Academy as of this date. 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.

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 and connectivity in their classrooms,
- 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 raising test scores.

4.b and c. List of clear goals and implementation plan for professional development; list of benchmarks for implementing planned strategies and activities.

4.b.1 By June 2008, 80% of teachers, paraprofessionals and administrative staff will be at “intermediate” or “proficient” in six CTAP² skill areas.

BENCHMARKS:

June '06	99% of teachers, paraprofessionals, and administrators will be at “intermediate” or “proficient” in four CTAP ² skill areas.
June '07	80% of teachers, paraprofessionals, and administrators will be at “intermediate” or “proficient” in five CTAP ² skill areas.
June '08	80% of teachers, paraprofessionals, and administrators will be at “intermediate” or “proficient” in six CTAP ² skill areas.

4.b.2 By June 2008, staff will demonstrate increased use of technological learning resources to organize, teach and assess student learning in California Content Standards.

BENCHMARKS:

June '06	40% of teachers integrate at least three lessons incorporating technology learning resources in teaching language arts, mathematics and science.
June '07	60% of teachers integrate at least four lessons incorporating technology learning resources in teaching language arts, mathematics, science, and research-based learning at the fourth grade and above grade levels.
June '08	80% of teachers integrate at least five lessons incorporating technology learning resources in teaching language arts, mathematics, science, and research-based learning at the fourth grade and above grade levels. Teachers will add at least one technological learning resource to their teaching repertoire annually thereafter.

4.b.3 By June 2007, staff will demonstrate increased use of technological resources to organize, assess, and communicate 4th through 8th grade student learning to the students’ parents.

BENCHMARKS:

June '06	99% of the 7 th and 8 th grade teachers utilize GradeBook Wizard to organize, assess, and communicate student progress to the students’ parents.
June '07	99% of 4 th through 6 th grade teachers utilize a technology product to organize, assess, and communicate student progress to the student’s parents...

4.d. Description of process to monitor that the professional development goals are being met.

Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
4.b.1	100% of staff takes CTAP ² Proficiency Survey.	CTAP ² Proficiency Coordinator	March '05	CMP’s CTAP ² 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. '05 and annually thereafter	Curriculum documents illustrating the integration of technology learning resources. Copies of online grade reports for 7th and 8 th grade students.

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Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
4.b.3	Set up access to GradeBook Wizard at Middle School campuses.	Technology Advisor & Tech Mentor	Aug. '05	Online access verified.
4.b.3	Middle School staff and campus principals will be trained in the use of GradeBook Wizard Pilot Program.	Technology Advisor & Tech Mentor	Aug. '05	Training agenda.
4.b.1 4.b.2 4.b.3	Staff develops individual professional development plans to increase their technology competency.	Principals	October '05	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 '05 through June '08	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 CTAP ² survey are researched and presented to staff. On site workshops will be featured.	Principals and Technology Advisor	June '06 and annually thereafter	List of workshops conducted locally, onsite training offerings, Quick Reference Guides, and handouts from staff trainings.
4.b.3	100% of Middle School staff will use GradeBook Wizard to review student progress and strategize how to improve student mastery of specific standards.	Middle School Staff & Tech Mentor	June '06 and ongoing	GradeBook Wizard 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	June '06 and annually thereafter	Professional Development Plans, travel documents and faculty meeting notes.
4.b.3	Technology Coordinator and Tech Mentors review and recommend alternative online student progress tracking systems.	Technology Advisor & Tech Mentors	July '07	Evaluation and Recommendation Report.
4.b.3	Team selects online student progress tracking system	Executive Director,	July '07	Evaluation and Recommendation Report, purchase order, installation manual.

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Goal #	Implementation Plan/Activities	Responsible Position	Timeline	Monitoring and Evaluation activities
	for future use and coordinates purchase and installation.	Principals, & Technology Advisor		
4.b.3	Set up access to online student progress tracking system.	Technology Advisor	Aug. '07	Online access verified.
4.b.3	Middle School staff, 9-12 teachers, and campus principals will be trained in the use of online student progress tracking system.	Technology Advisor & Tech Mentor	Sept. '07	Training agenda.
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 '07 Annually thereafter	Notes from staff meeting; recommendations; review of results from CTAP ² Proficiency Survey.

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

5.a. 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.

- Technology hardware: Approximately 20% of desktops utilized in the 5 CMP campuses are at least 5 years old. Of the 20%, half are more than 7 years old. Estimating a 5 year life-cycle, a program to replace 20% of the workstations each year will be established. All desktops or notebooks installed are configured based upon a well defined CMP standard. When the focus for K-6 students is primarily to improve keyboard and word processing skills, Alpha Smart systems will be utilized, providing a lower cost, and very portable, alternative to the standard desktop. The portable Alpha Smart systems can be checked out by students to use away from campus. Access to high-speed laser printers for each classroom is non-existent in four of the five campuses; a high-speed (17-25 ppm) network addressable printer will be installed for each classroom. In order to utilize current and anticipated software to monitor student progress, boost collaboration among staff, and enhance communication with parents, teachers need secure access to computer resources; secure access means no sharing of the resource with students or other staff. Teachers will be provided with notebooks configured with a standardized suite of office automation, student management, and educational software. It is estimated that we will need 85 notebooks, 50 desktops computers, 25 AlphaSmarts, and 33 network addressable laser printers. The goal/benchmark is to place a laser printer in each classroom, and to establish a 5:1 student to computer ratio in all CMP campuses.
- Electronic learning resources: To provide the basic office automation 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. Accounting for all desktops and notebooks in this fiscal year, 65 additional copies of office automation software are needed for students, 15 additional copies for administrative staff, and 20 licenses will be required for teacher's notebooks. By reducing the number of students to computers to a 5:1 ratio, additional licenses will be required over the 3 year lifetime of this plan.
- Networking and telecommunications infrastructure: The five CMP campuses utilize Dlink and US Robotic routers that also provide basic firewall capabilities. To provide a secure network environment that is more efficiently managed, the capabilities of these firewall/routers must be reviewed against industry best practices. If the current firewall/routers are found deficient, more robust units, with capabilities to be managed via the internet should be deployed. In addition to the standard anti-virus software currently installed on all CMP desktops and notebooks, anti-spyware software must be installed on these devices to further protect users from malicious software downloads. A

content filtering appliance must be installed at each campus that restricts student internet access to only appropriate resources. Wireless access points at all campuses must be configured with standard encryption algorithms and machine specific access controls allowing only authorized administrators and teachers “go-any-campus” access to network resources, including access to the high-speed network addressable printer located at each campus.

- Physical plant modifications: Additional desktops, laser printers, and LCD projectors are required at all CMP campuses. With the exception of the current American River campus, all sites need to have their electrical infrastructure reviewed and possibly upgraded to handle increased electrical demands. Additional CAT-5e cabling is needed at both the Carmichael and Capitol campuses bringing network access to all classrooms. Where adding CAT-5e cabling is too expensive, secure wireless access points (AP) may be substituted. Main network wiring closets at all campuses require minor modifications to properly mount all network equipment, and must be secured against unauthorized access.
- Technical support: The California Montessori Project utilizes a part-time (i.e. .4 FTE) Technology Advisor to support the network, desktops, and notebooks installed at the 5 campuses. The Technology Advisor provides email, web, network router management, and liaisons with ISP vendors and district IT personnel to resolve issues. The Technology Advisor works with the Executive Director and campus principals in planning IT projects and initiatives. Based upon the expected number of additional desktops & notebooks required to achieve a 5:1 student to computer ratio, the additional notebooks that will be configured for teachers, and the need to more closely manage the entire environment, this position should be upgraded to a full-time support role. As progress is made implementing this plan, additional technical support (i.e. .5 FTE) may be needed in subsequent years.

5 b. Description of existing hardware, Internet access, electronic learning resources, and technical support.

General Overview: The five campuses of the California Montessori Project (CMP) share both similarities and differences in their hardware infrastructure, internet access, electronic learning resources, and technical support. The similarities exist primarily within the administration support as all campuses utilize similar desktops and high-speed multifunction printers. The standard desktop operating system is Microsoft XP Professional. Microsoft Office XP is the current standard for office automation. Quicken, PageMaker, and Aeries are the standard accounting, publishing, and student information software (SIS) respectively, used at all campuses. Not all campuses utilize the same internet service provider (ISP). To provide email access from any location, and through any ISP, the CMP contracts with a separate vendor to provide secure access to email from any location.

Classroom desktops purchased by CMP are from a single vendor running Microsoft XP Home. Approximately 30 % of the desktops include Microsoft Works for basic office automation. Another 45% of the desktops are bundled with WordPerfect office software. The remaining

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desktops have no licensed office automation software. Although software designed to improve math, reading, and typing skills is used throughout the 5 campuses, its use is based upon the needs of each classroom or instructor. There is no standard suite of software defined across all campuses, nor any formal curriculum set for using the technology.

Existing Hardware:

The following table provides an inventory of desktops, notebooks, laser printers, and LCD projectors deployed among the California Montessori Project. Only those devices less than 4 years are listed. There is a scattering of older desktops throughout the CMP campuses. These devices cannot support up-to-date software (both operating system and layered product), no longer have vendor support, and cannot be configured to provide secure access to the internet; these devices are not connected to the network.

Location	Total Desktop Computers Current	Total Notebook Computers Current	Admin Support Desktops Current	Admin Support Desktops Needed	Classroom Desktops Current	Classroom Desktops Needed**	Classroom Notebooks Current	Classroom Notebooks Needed	Student to Computer Ratio* Current	Student to Computer Ratio* Needed
Central Admin - Carmichael	6	1	6	0	n/a	n/a	n/a	n/a	n/a	n/a
American River Campus	17	1	3	0	14	16	0	20	25:1	5:1
Capitol Campus	7	1	2	0	4	13	0	10	34:1	5:1
Carmichael Campus	15	1	2	0	13	15	0	20	18:1	5:1
Elk Grove Campus	13	1	3	0	10	21	0	15	23:1	5:1
Shingle Springs Campus	26	1	2	0	24	10	0	20	11:1	5:1

*Ratio based upon budgeted enrollment divided by number of desktops for classrooms.

**Desktops needed include the use of Alpha Smart devices for word processing and keyboard skill development

Location	Office Productivity Software Licenses Current ²	Office Productivity Software Licenses Needed ²	LCD Projectors Current	LCD Projectors Needed	Classroom to Laser Printer Ratio ¹ Current	Classroom to Laser Printer Ratio Needed ¹	Technology Support Current	Technology Support Needed
Central Admin - Carmichael	7	0	1	0	n/a	n/a	.07 FTE	.2 FTE
American River Campus	1	53	1	2	12:1	1:1	.07 FTE	.2 FTE
Capitol Campus	1	29	1	1	4:1	1:1	.07 FTE	.2 FTE
Carmichael Campus	1	50	1	2	8:1	1:1	.07 FTE	.2 FTE

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Location	Office Productivity Software Licenses Current ²	Office Productivity Software Licenses Needed ²	LCD Projectors Current	LCD Projectors Needed	Classroom to Laser Printer Ratio ¹ Current	Classroom to Laser Printer Ratio Needed ¹	Technology Support Current	Technology Support Needed
Elk Grove Campus	1	49	1	2	8:1	1:1	.07 FTE	.2 FTE
Shingle Springs Campus	1	56	1	2	9:8	1:1	.07 FTE	.2 FTE

¹Campus with ratios x:1 indicates no individual classroom laser printers, but access to the administration's high-speed laser printer

²License estimates are based upon achieving a 5:1 computer to student ratio by the end of this 3 year plan. 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.

Internet Access:

All CMP 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 3 different vendors utilizing 2 different network technologies. Access speeds vary depending on provider and technology used. Download speeds vary from 4 Mbs to 1 Mbs, with upload speeds varying from 128 Kbs to 384 Kbs. A low-end router is utilized at each site to provide basic firewall 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. In order to provide consistency among the campuses, a single vendor is utilized to provide electronic mail and web services. Secure access to these services is available regardless of local communications provider.

Electronic Learning Resources:

Approximately 30 % of the desktops include Microsoft Works for basic office productivity. Another 45% of the desktops are bundled with WordPerfect office software. The remaining desktops have no licensed office automation software. Although software designed to improve math, reading, and typing skills is used throughout the 5 campuses, its use is based upon the needs of each classroom or instructor. There is no standard suite of software defined across all campuses, nor any formal curriculum set for using the technology.

Technical Support:

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 position is a part-time (i.e. .4 FTE) salaried position funded through the CMP technology budget. The Technology Advisor is responsible for the maintenance, upgrade and replacement of all equipment and software. Network routers and switches managed by a hosting district's support infrastructure (e.g. American River Campus) 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.

5.c. List of benchmarks and a timeline for obtaining hardware, infrastructure, learning resources and technical support.

BENCHMARKS

5.c.1	By June 2008, each classroom will have a minimum 5:1 ratio of networked computers to students and a laser printer. Each campus will have at least 3 LCD projectors.
5.c.2	By June 2006, establish policy, procedures, and guidelines for replacing obsolete equipment in all classrooms and administrative offices.
5.c.3	By December 2005, each networked computer will have safe and secure access to the internet.
5.c.4	By June 2007, desktop & network hardware and software configurations will be standardized.
5.c.5	By June 2007, teachers will develop skills to handle basic workstation, network, application functions, and problem diagnostics.
5.c.6	By June 2007, a program for the selection, purchase, and maintenance of software for instruction that aligns with the Montessori curriculum will be established.

5.d Activities, Timeline and Monitoring Process

Activities	Timeline	Evaluation Instrument(s) & Data to be Collected	Frequency of Collection	Program Modification Process and Responsible Person(s)
5.c Benchmark				
1. By June 2008, each classroom will have a minimum 5:1 ratio of networked computers to students and a laser printer. Each campus will have at least 3 LCD projectors.				
Inventory classrooms, determine physical plant (e.g. electrical) and network requirements.	March '05	Inventory of current desktops and report of required physical plant and network infrastructure upgrades required.	Annual	Review progress toward completion of plan, collect inventory and review; Site Principals, Executive Director, Technology Advisor.
Develop implementation plan to achieve goal within 3 years (i.e. 33% of the total required computers & printers each year). Estimate and identify required funding.	June '05	Implementation plan.	Annual	Review progress toward completion of plan, collect inventory and review; Site Principals, Executive Director, Technology Advisor.
Purchase and install 33% of planned laser printers and LCD projectors as resources permit.	July '05 and annually thereafter.	Purchase and installation records.	Annual	Review progress toward completion of plan, collect inventory and review; Site Principals, Executive Director, Technology Advisor.
Purchase and install 33% of planned computers or as resources permit.	August '05 and annually thereafter.	Purchase and installation records.	Annual	Review progress toward completion of plan, collect inventory and review; Site Principals, Executive Director, Technology Advisor.

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Activities	Timeline	Evaluation Instrument(s) & Data to be Collected	Frequency of Collection	Program Modification Process and Responsible Person(s)
5.c Benchmark				
2. By June 2006, establish policy, procedures, and guidelines for replacing obsolete equipment in all classrooms and administrative offices.				
Establish policy, procedures, and guidelines for replacement of obsolete computers in CMP schools.	June '06	Hardware inventory, policy, procedures, and guidelines.	Annual review every June	Review, approve, and publish policy, procedure, and guideline documents; Site Principals, Executive Director, Technology Advisor.

Activities	Timeline	Evaluation Instrument(s) & Data to be Collected	Frequency of Collection	Program Modification Process and Responsible Person(s)
5.c Benchmark				
3. By December 2005, each networked computer will have safe and secure access to the internet.				
Review market for current types of content filtering appliances, router/firewalls, anti-virus methods, and anti-spy ware software.	June '05	Report of current market solutions. High-level implementation plan.	Once	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Proto-type and evaluate selected appliances and software.	July '05	Evaluation report.	Once	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Purchase, install & configure selected software and appliances.	August '05	Purchase records. Report of installation activities.	Once	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Develop & distribute site management guides.	September '05	Updates to site management guides.	Annual review.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.

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Activities	Timeline	Evaluation Instrument(s) & Data to be Collected	Frequency of Collection	Program Modification Process and Responsible Person(s)
5.c. Benchmark				
4. By June 2007, desktop & network hardware and software configurations will be standardized.				
Define and document desktop hardware & software standards for administrative staff, teachers, and students.	June '06	Inventory records complete with software.	Annual review.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Define and document network hardware & software network standards.	June '06	Policy, procedures, and standards.	Annual review.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Research, prototype, select, and purchase configuration management tools.	January '07	Report containing evaluation matrix of products reviewed with recommendation.	Once	Technology Advisor to produce report. Campus Principals and Executive Director to review.
Define and deploy configuration management solution to maintain standard desktop & network configuration.	June '07	Updates to site managements guides.	Annual review.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.

Activities	Timeline	Evaluation Instrument(s) & Data to be Collected	Frequency of Collection	Program Modification Process and Responsible Person(s)
5.c. Benchmark				
5. By June 2007 50% of CMP teachers will develop skills to handle basic workstation, network, application functions, and problem diagnostics.				
Assess current technical skill levels of staff using such resources as CTAP evaluation, on-site interviews, and review of formal computer course work taken.	January '06	Assessment report with training plan recommendation.	Annual review.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Develop individual and group training plans based upon assessments.	June '06	Technical training plans.	Annual review & update.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Develop site management guides for each campus.	June '07	Site management guide.	Annual review & update.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.

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Activities	Timeline	Evaluation Instrument(s) & Data to be Collected	Frequency of Collection	Program Modification Process and Responsible Person(s)
5.c Benchmark				
6. By August 2007, a program for the selection, purchase, and maintenance of software for instruction that aligns with the Montessori curriculum will be established.				
Review and select software that aligns with the Montessori curriculum.	August'06	Report containing results of research including recommendations for purchase.	Report will be reviewed and updated annually.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Provide all teachers with notebooks equipped with MS Office, online resources, and other software as required for curriculum needs.	August'07	Hardware and software inventory by campus.	Annual.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.
Provide all CMP students with software aligned with Montessori curriculum in support of math, science, language arts, and reading.	August'07	Software inventory by campus.	Annual.	Review report and adjust accordingly; Campus Principals, Executive Director, Technology Advisor.

Monitoring Process

The Technology Advisor will maintain an inventory of all campus computer equipment. The Advisor will obtain status information and report progress towards achieving goals outlined in this section. The 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.

6. FUNDING AND BUDGET COMPONENT CRITERIA

6.a List of established and potential funding sources and cost savings, present and future

The California Montessori Project is committed to providing all students and staff with a high level of technology resources and training that compliment the curriculum goals. This commitment is evident by actions taken this fiscal year in establishing a part-time technical support person, funding of classroom desktops from its general fund, and the collaborative creation, submission and adoption of this technology plan. That being said, more resources are required to implement and support the goals of this plan.

The current level of funding documented below is not sufficient to meet the needs detailed within this plan. Additional funding will be sought through grants, donations, and partnerships with both private and public agencies. Additional “out-of-the-box” thinking may be required to satisfy the goals set forth in this plan, while at the same time lowering expected costs to support them. Such options may be to utilize more open source solutions (e.g. Linux based), and to utilize parent volunteers at each campus to handle level 1 technical issues and basic software installations.

2005-2006 Projected District Technology Funding				
Funding Source	Nature of Source		Funded Amount	Person or Title Responsible for Procurement of Source
	On-going	One Time		
Grants	X		\$10,000	Executive Director, Campus Principals, Director of Development
General Fund	X		\$60,000	Executive Director
Fund raising & donations by each campus	X		\$10,000	Campus Principals

2006-2007 Projected District Technology Funding				
Funding Source	Nature of Source		Funded Amount	Person or Title Responsible for Procurement of Source
	On-going	One Time		
Grants	X		\$10,000	Executive Director, Campus Principals, Director of Development
General Fund	X		\$60,000	Executive Director
Fund raising & donations by each campus	X		\$10,000	Campus Principals

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2007-2008 Projected District Technology Funding				
Funding Source	Nature of Source		Funded Amount	Person or Title Responsible for Procurement of Source
	On-going	One Time		
Grants	X		\$10,000	Executive Director, Campus Principals, Director of Development
General Fund	X		\$60,000	Executive Director
Fund raising & donations by each campus	X		\$10,000	Campus Principals

6.b Estimated implementation costs for the term of the plan (2005-2008)

Product or Service	Number @ Unit Cost or Cost per Year	3-Year Plan Total Cost
Desktop Computers	\$30,000 / year	\$90,000
Middle School Student Notebook	\$10,000/year	\$30,000
Notebooks for Teachers	\$10,000/year	\$30,000
Alpha Smart	25@\$300	\$7,500
Laser Printer	50@\$200	\$10,000
LCD Projectors	10@\$1,000	\$10,000
Digital Camera	20@\$200	\$4,000
Digital Movie Camera	5@\$500	\$2,500
Administrative Software (Office Automation)	\$5,000/year	\$15,000
Curriculum Software	\$10,000/year	\$30,000
Scanners	20@\$200	\$10,000
Content Filtering Appliance	5@\$1,000	\$5,000
Content Filtering, Anti-virus, & Anti-spy ware	\$2,500/year	\$7,500
Broadband Internet Services, Email, & Web Hosting (5 campuses & Central Admin)	\$7,200/year	\$21,600
Network switches, cabling, & wireless access	\$1,000/year	\$3,000
Technical Training for Teachers & Administration	\$5,000/year	\$15,000
Technical Support	\$50,000/year	\$150,000
TOTAL	2005-2008	\$441,100

6.c Description of ongoing district technical support

Technical support for the California Montessori Project is provided by the Technology Advisor, a part-time position (i.e. .4 FTE) funded through the CMP's general fund. The Technology Advisor provides network, workstation, and application support for both the central administration offices and the 5 campuses. The Technology Advisor is the conduit between each campus and their designated ISP, with school district technical support (i.e. American River campus), 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 both administrative and teaching staff. Information technology planning, purchasing, and configuration management are provided by the Technical Advisor. It is anticipated that the Technology Advisor position will be funded as full time for the next fiscal year.

6.d Description of the district's replacement policy for obsolete equipment

The California Montessori Project has no formal replacement policy for obsolete equipment. 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. The Technology Advisor does make informal recommendations to campus staff as to the minimum desktop configuration acceptable for receipt as a donation.

6.e Description of the feedback loop used to monitor progress and update funding and budget decisions

The California Montessori Project annual budget is developed in May/June; technology budget forecasts make up part of this process. It is anticipated that the Technology Advisor will take on a larger role in providing annual budget estimates required to implement this plan. The technology budget estimates will be reviewed by campus principals with final approval by the Executive Director. The Technology Advisor will prepare 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. He 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.

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

7. MONITORING AND EVALUATION COMPONENT

The California Montessori Project has developed a 3 ½ year Technology Plan which is focused during the remainder of the 2004-2005 school year on documenting the school’s current technology equipment and utilization. In addition, a focus of the remainder of the 2004-2005 school year is to outline the plans for technology acquisition and implementation consistency across all five campuses. The plans for the 2005-2006 through 2007-2008 school years include the goals and benchmarks to implement technology and professional development at increasing levels in a consistent manner across all five 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 Task Force and the school’s Governing Board each year to determine progress and additional needs.

7.a Description of how technology’s impact on student learning and attainment of the district’s curricular goals, as well as classroom and school management, will be evaluated

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 CTAP² iAssessment.
- Annual increases in teachers’ use of technology to enhance curriculum.
- Students’ progress in mastering the California Content Standards in Language Arts, Math, and Sciences.
- Students’ progress in acquiring technology proficiency skills.
- Annual maintenance and infrastructure upgrade activities.
- Adequacy of Tech Mentor and Technical Support training.

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 Task Force 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 Tech Task Force and Governing Board at their regularly scheduled meetings. Principals 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 Description of how the information obtained through monitoring and evaluation will be used.

The Technology Advisor, 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 Tech Task Force, the Governing Board and the Campus Advisory Councils at each campus at regularly scheduled meetings.

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

Adult Literacy:

According to March 2005 Aeries data, 5% of the parents of students served by the California Montessori Project have not completed high school. 5.5% of the parents have no more than a high school education, 25% have some post-secondary education, 30% have completed four years of post-secondary education, and 24.3% have completed post-graduate coursework. The percent of parents who “declined to state” was 10.2%.

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 five campuses of the California Montessori Project are located in four elementary school districts within the greater Sacramento area. Each of these areas offers a variety of adult literacy courses.

The local libraries offer adult literacy services including basic reading instruction and one-on-one Volunteer Tutoring utilizing the Laubach method of teaching. The Literacy Action Council operates through the local libraries, and is a non-profit, volunteer organization that raises money

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to help support the Literacy Programs. Major fundraisers are the *Spring Membership Drive* and *Afternoon Tea With the Authors* in the Fall.

The County Offices of Education in each area 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 Spring of 2006, 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: CMP Technology Committee.

9.a. Description of how education technology strategies and proven methods for student learning, teaching, and technology management are based on relevant research and effective practices.

Curricular Area	Research Consulted	Annotation
Math/Core Subject Area Improvement	<p>Kulik, J.A. (1994) Meta-Analytic Studies of Findings on computerized instruction. In E. Baker and H. O’Neil (eds.), <i>Technology Assessment in Education and Training</i>. Hillsdale, NJ: Lawrence Erlbaum Associates.</p> <p>Sivin-Kachala, J., and Bialo, E. (2000). <i>2000 Research Report on the Effectiveness of Technology in Schools</i> (7th ed.). Washington, D.C.: Software and Information Industry Association.</p>	<p>Computer assisted instruction and drill-and-practice software can significantly improve student scores on standard achievement tests in core subject areas.</p>
Literacy	<p>Pisapia, J. R., Knutson, K., Coukos, E. (1999). <i>The Impact of Computers on Student Performance and Teacher Behavior</i>. ERIC digest. ED 438323.</p> <p>Huntinger, P., Robinson, L., Schneider, C., Johanson, J. (2002). <i>The Early Childhood Interactive Technology Literacy Curriculum Project: A Final Report</i>. ERIC digest. ED 468324.</p> <p>Nichols, L. M. (1996). Pencil and Paper vs. Word Processing: A Comparative Study of Creative Writing in the Elementary School. <i>Journal of Research on Computing in Education</i>, 29, 159-166.</p> <p>Lehr, F. (1995). Revision in the Writing Process. <i>ERIC Digest</i>.</p>	<p>Student achievement can be influenced by the appropriate integration of computer technologies into instruction. Students with access to computer-aided instruction had increased standardized reading test scores.</p> <p>The Interactive Technology Literacy Curriculum (ITLC) project was a federally funded 5-year model demonstration project designed to advance the availability, quality, use and effectiveness of computer technology in addressing the acquisition of emergent literacy among young children with mild to severe disabilities. Children's emergent literacy skills and understanding of literacy concepts, as defined in theory and by the ITLC, improved as a result of their participation in the project.</p> <p>Students using word processors write compositions with more sentences and more words than students using pencil and paper.</p> <p>Students using word processing to write compositions tend to work longer at their compositions and make more edits and revisions to their text.</p>

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Curricular Area	Research Consulted	Annotation
Multi cultural Education	Marshall, Patricia L... (2001) <u>Multicultural Education and Technology: Perfect Pair or Odd Couple?</u> ERIC Digest	This paper documents research which supports the connection between multicultural education and technology through the use of content integration, knowledge construction process, prejudice reduction, equitable instruction, and empowering school culture.
Science	<u>Norman, Kathy I.; Hayden Katherine L.</u> ; (2002) K-12 Instruction in the United States: Integrating National Standards for Science and Writing through Emerging Technologies.	The authors describe examples of how technology, science and writing have been used in effective learning environments in K-12 education. These examples can be modified to fit the specific needs of teachers and learners. The researchers are currently implementing science model projects that are included in the presentation.

9.b. Description of thorough and thoughtful examination of externally or locally developed education technology models and strategies.

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.