**Morgan Hill Unified School District**

# Technology Plan

## For Teaching and Learning

**(State Approved)**

**July 1, 2007 to June 30, 2010**

# Morgan Hill Unified School District

Santa Clara County
15600 Concord Circle
Morgan Hill, CA 95037
(408) 201-6023

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## Superintendent: Dr. Alan Nishino

Deputy Superintendent, Business Services: Bonnie Tognazzini

Assistant Superintendent, Educational Services: Michael Johnson

Assistant Superintendent, Human Resources, Planning & Communication: Dr. Jay Totter

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## Board of Education

Peter Mandel - President

| | |
|---|---|
| Julia Hover-Smoot | Kathleen Sullivan |
| Michael Hickey | Bart Fisher |
| Shellé Thomas | Don Moody |

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Web Site: http://www.mhu.k12.ca.us

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# Appendix I – Education Technology Plan Benchmark Review

For the grant period ending June 30, 2007

CDS # 43 - 69583
District Name: Morgan Hill Unified School District

The No Child Left Behind Act requires each EETT grant recipient to measure the performance of their educational technology implementation plan. To adhere to these requirements, describe the progress towards the goals and benchmarks in your technology plan as specified below. The information provided will enable the technology plan reviewer better to evaluate the revised technology plan and will serve as a basis should the district be selected for a random EETT review. Include this completed document in your revised technology plan and send the signed hard copy to your regional California Technology Assistance Project (CTAP) office or the California Department of Education (CDE).

1. The Morgan Hill Unified School District has made significant progress in meeting the goal of using technology to improve teaching and learning. Under the leadership of our superintendent, Dr. Alan Nishino, the integration of technology and instruction has become a strong focus in the district. During the past two years, the district has implemented the use of computer-based instruction in the core curricular areas by purchasing a data warehousing system to monitor student progress and inform instruction. The system provides longitudinal assessment data and allows site and district administrators to analyze both individual students and student sub-groups as each site works toward meeting their Annual Yearly Progress (AYP) and close the achievement gap.

   In updating our district Local Educational Plan (LEAP), instructional technology was infused throughout all curricular areas. The following curricular resources have been purchased and are in the process of being rolled-out to all school sites as appropriate: Compass Learning, Advanced Academics, Datawise, & Leapfrog. In addition, we are investigating the use of Scholastic Read 180, Wireless Generation and various online curriculum resources to assist students in meeting content standards. With each textbook adoption the curricular area taskforce also reviews the technology resources offered by the publisher to ensure they are appropriately aligned to the curriculum and provide students at all instructional levels with the appropriate support.

   An important component of any new purchase is the accessibility for students both at school, at home and in the community. We are currently piloting K-6 standards-based online report cards. The district is also investigating products that would allow parents to monitor student progress online.

2. The Morgan Hill Unified School District has approximately 25% of the teachers that have received training through the *Technology Academy for Teachers (TAFT)*. Many of the lead teachers mentioned in the above paragraph have participated in the TAFT course offerings.

   The Morgan Hill Unified School District has recognized that no district initiative can occur without the leadership of the site principal. In the past, the focus of staff development has been on the teacher in the classroom. Over the last twenty months the focus has been on training all administrators and at least one lead teacher at each site in the use of data disaggregation and a variety of curricular resources. Supported by the district Director of Technology as well as the district Director of Curriculum & Assessment these site teams will continue during the next three years training all staff in the use of data to inform instruction utilizing the cycle of inquiry. The teams will also continue to provide training and coaching support to classroom teachers as they work to integrate technological resources into their classroom structure.

   Last year, the district negotiated with the Morgan Hill Federation of Teachers (MHFT) to increase the number of staff development days in a school year. This has provided increased opportunities for staff development. With a focus on data disaggregation and the cycle of inquiry, the professional conversations of teachers and site administrators have changed dramatically. These educators continue to seek new ways to unpack student achievement data to inform program and instructional design as well as learn more about ways to extend and enhance the curriculum utilizing technology.

The applicant certifies that the information described above is accurate as of the date of this document. Should the applicant be selected for a random EETT review, the information stated above will be supported by adequate documentation.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above certifications.

Arlene Machado
PRINTED NAME OF AUTHORIZED REPRESENTATIVE

Director of Technology & Enrollment
TITLE OF AUTHORIZED REPRESENTATIVE

SIGNATURE DATE

## Appendix J – Technology Plan Contact Information

Education Technology Plan Review System (ETPRS)
Contact Information

County & District Code: 43 - 69583
School Code (Direct funded charters only): _ _ _ _ _ _ _
LEA Name: Morgan Hill Unified School District

*Salutation: Mr. Ms. Dr.
*First Name: Arlene
*Last Name: Machado
*Job Title: Director Technology & Enrollment
*Address: 15600 Concord Circle
*City: Morgan Hill
*Zip Code: 95037
*Telephone: (408) 201-6030 Ext:
Fax: 408-779-8309
*E-Mail: arlene.machado@mhu.k12.ca.us

Please provide backup contact information.
1st Backup Name: Pat Blanar
1st Backup E-Mail: pat.blanar@mhu.k12.ca.us
2nd Backup Name:
2nd Backup E-Mail:

*Required information in the ETPRS

# Executive Summary

In this Information Age, it is not just what one knows that is so vital, but the ability to think critically and find information when needed. It is the skill of learning that will prepare children to excel in the world where workers must be as flexible as the companies for which they work.

*The Governor's Council on Information Technology*

## Mission Statement

The mission of the Morgan Hill Unified School District, serving a diverse community, is to create in students a passion for learning and achievement through innovation, dynamic partnerships, and exceptional programs and support services.

## Vision

The District shall ensure that all students and staff have technological expertise that empowers them to be life-long learners, communicators and leaders in an ever-changing global society.

## Focus of the Plan

The 2007-2010 Technology Plan focuses on increasing the availability of technology within the district, infusing technology into curriculum and instruction, providing planned, ongoing staff development as well as technical and financial support that will serve as a structure and vision in empowering all students in the Morgan Hill Unified School District to be competent readers, writers, problem solvers, and life-long learners.

## Background

Morgan Hill Unified School District (MHUSD) is located in Morgan Hill, a city of just over 33,000 residents, located at the southern end of the Santa Clara Valley, 10 miles south of San Jose and 70 miles south of San Francisco. Positioned on the southern extreme of the Silicon Valley, Morgan Hill is an important edge community with the potential for providing ancillary services to major firms in the heart of the Silicon Valley, San Francisco Peninsula and East Bay regions.

The Morgan Hill Unified School District encompasses nearly 300 square miles and serves the ethnically diverse population of Morgan Hill, San Martin, portions of San Jose, and unincorporated areas of the county. MHUSD is comprised of 14 schools: nine elementary, two middle schools, two comprehensive high school, a continuation high school, and a community adult school. The second comprehensive high school, Sobrato, opened in the fall of 2004. Six out of nine elementary schools receive Title I funding. The size of school ranges from the highest 1,500-student enrollment to the lowest 91-student enrollment. Our

multi-ethnic population includes over 8,900 K-12 students. The ethnic populations include: 40% White, 38% Hispanic, 6 Asian or Pacific Islander, 2% African American, and 14% other. Twenty-six percent of the students are English Learners, representing 29 languages spoken in the district. Twenty-six percent of the students qualify for the Free and Reduced Lunch Program. Eleven percent of the students receive special education services.

During 2002-03, two schools in the Morgan Hill Unified School District qualified for School Technology & Renovation grants awarded by the California Department of Education. Award amounts were $192,000 to one of our middle schools and $46,000 to one of our elementary schools. Successful applicants received funding for the purchase of up-to-date multimedia computers to reduce the student-to-multimedia computer ratio in 4th through 8th grade classrooms to 10-to-1 or lower by placing additional computers in classrooms.

The integration of technology into the curriculum was also a key aspect of the grant request. Lead teachers in the area of technology at each school site conducted staff development sessions highlighting the integration of technology into the areas of literacy and mathematics. Students have an increased opportunity to work on a computer and, in turn, participate in expanded activities in the areas of reading, writing and mathematical literacy utilizing techniques to enhance critical thinking, expand research options and participate in online curricular simulations. English Language Learners and Special Education students will have additional opportunities to utilize the new computers as an assistive technology.

One of the requirements of the School Technology & Renovation Grants was that teachers onsite complete the CTAP2 survey. As a result of teacher responses, a group of teachers and parents got together to design a comprehensive staff development program centered around the *Big 6 (See below)* to be offered districtwide to better meet the needs of all teachers and students in the area of technology. It was difficult to expect teachers to provide students with relevant experiences in technology with little or no formal training themselves. The *Technology Academy for Teachers (TAFT)* was born and now serves teachers districtwide and provides a training program for Highly Qualified Teachers as required in the No Child Left Behind legislation. In addition, since most of the funding for this endeavor was provided by the use of Title II funds, teachers from the local Catholic school also participate. A community volunteer from Cisco has assisted us with the district infrastructural needs to better support the learning of students and staff.

A dedicated group of district teachers designed course offerings for the Spring, 2004 *TAFT* program. Participating teachers were paid the hourly contractual rate of $21.63 to attend the sessions. Teachers who would have rather received credit from Foothill College had the option of purchasing ½ units for 6 hours of instruction in lieu of being paid the hourly rate by the district. Classes were scheduled for 2 hours after school on a Wednesday or Thursday. Enrollment was held to a minimum of 20 students for any class offering Foothill credit. The only other commitment to the program was that each participant complete the CTAP2 survey online.

Since this initial infusion of grant and Title II funding in the area of technology a number of other parents and community volunteers have stepped up to provided direction and support at

the site level. Some improvements have included an upgraded LAN at several school sites as well as additional parent support in the classrooms and computer labs to assist with the technology support needs that arise on a regular basis.

In July, 2005, a new superintendent was hired for the Morgan Hill Unified School District., with an expertise in technology, curriculum and instruction. This plan which infuses technology across the curriculum K-12 to support the teaching and learning of all students, was developed as a result of his leadership.

Areas to be highlighted in this technology plan include The Big6™ as an information literacy model as follows:

## Goals

The goals addressed in each area of this plan are as follows:

1. Curriculum: Promote the integration of technology into instruction to ensure student achievement of curricular and technology standards.
2. Professional Development: Provide ongoing professional development and follow-up for all users to effectively access, retrieve, manipulate, synthesize, and communicate information using technology tools in an ethical manner.
3. Infrastructure, Hardware, Technical Support and Software: To provide students and staff with the infrastructure, hardware, technical support and software needed to maximize productivity and learning**.**
4. Funding & Budget: The district will continue to research funding sources and provide the needed budget and funding for technology to support student learning as addressed in the plan as funding exists.
5. Monitoring & Evaluation: The monitoring and evaluation of the timeline, implementation and goals of the plan and the plan itself will be reviewed on a yearly basis. Results from data collection will be used to make modifications and adjustments to the plan.

In each of the five areas, specific objectives and strategies are identified along with a timeline for implementation and the responsible department and/or personnel. Each area will be monitored and evaluated based on a variety of assessment tools.

# 1

# Curriculum

*The new education must teach the individual how to classify and reclassify information, how to evaluate its veracity, how to change categories when necessary, how to move from concrete to the abstract and back, how to look at problems from a new direction—how to teach himself. Tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn.*

-Herbert Gerjuoy

## Introduction

The instructional goals of the Morgan Hill Unified School District are clear, all students will reach high standards, at a minimum, attaining proficiency or better in reading and mathematics by the 2013-2014 school year. The implementation of the state-adopted instructional materials guide the teaching and learning towards meeting and/or exceeding the state-approved content standards. There is a focus on student-centered learning that provides all children with the tools needed to become independent learners and successful citizens of the world.

Analysis of the California Standards Test (CST) serves as a basis to determine the highest academic needs of the students in the Morgan Hill Unified School District. Current the CST data is as follows:

**California Standards Test in English/Language Arts**

**Percentage of Students at or Above Proficient**

| Grade | Morgan Hill Unified |
|---|---|
| **2** | 50 |
| **3** | 41 |
| **4** | 59 |
| **5** | 50 |
| **6** | 55 |
| **7** | 48 |
| **8** | 48 |
| **9** | 51 |
| **10** | 45 |
| **11** | 43 |

**California Standards Test in Mathematics**

**Percentage of Students at or Above Proficient**

| Grade/Test | Morgan Hill Unified | | | |
|---|---|---|---|---|
| **2** | 58 | | | |
| **3** | 61 | | | |
| **4** | 54 | | | |
| **5** | 49 | | | |
| **6** | 49 | | | |
| **7** | 48 | | | |
| | 8th | 9th | 10th | 11th |
| **Algebra** | 75 | 15 | 7 | 11 |
| **Geometry** | 83 | 48 | 16 | 9 |
| **Algebra II** | N/A | 64 | 23 | 7 |
| **General Mathematics** | 36 | 22 | N/A | N/A |
| **High School Summative Math** | N/A | N/A | 69 | 38 |

CST scores indicated a need for continued focus on reading/language arts and mathematics to assist students in reaching proficiency in these core academic areas.

The Morgan Hill Unified School District's Local Educational Agency Plan and all school site plans outline the following student performance goal: All students will reach high standards, at a minimum, attaining proficiency or better in English/language and mathematics by the 2013-2014 school year.

In addition, the District's expectation is that all schools will meet the state's goal of increasing the Academic Performance Index (API) growth target by a minimum of 5% annually. Thus, included in the annual goals listed in each school's School Plan is the overarching goal of all students achieving at or above grade level proficiency on state and district content standards, as measured by student performance on the CAT-6 and the California Standards Tests.

## Research

MHUSD recognizes that if technology is to be effectively used in the classroom to assist students in achieving curriculum standards, technology planning needs to be driven by the curriculum.

*Additionally, we found that successful implementation of classroom technology was more likely to occur when teachers viewed technology as a means to an end, rather than an end itself, and when they saw an intimate connection between technology and the curriculum* (Zhao, Pugh, Sheldon, & Byers, 2002).

Research shows that as library media professional have worked to move from teaching isolated "library skills:" to teaching integrated "information skill," they found that information skills can be integrated effectively when the skills (1) directly relate to the content area curriculum and to classroom assignments, and (2) are tied together in a logical and systematic information process model. It is clear that as schools seek to move from isolated information technology skills instruction will also need to focus on both of these requirements.

"There is increasing recognition that the end result of computer literacy is not knowing how to operate computers, but to use technology as a tool for organization, communication, research, and problem solving."
*Johnson, Michael B.; Johnson, Doug, Learning and Teaching Information Technology—Computer Skills in Context. ERIC Digest, (2002).*

"Information Literacy Standards for Student Learning provides a conceptual framework and broad guidelines for describing the information-literate student. The standards consist of three categories, nine standards, and twenty-nine indicators, which describe the content and process related to information that students must master to be considered information literate. By offering broad guidelines for describing the information-literate student, Information Literacy Standards for Student Learning, provides a conceptual framework and supporting material for local efforts." *Information Literacy Standards for Student Learning, Standards and Indicators, Prepared by the American Association of School Librarians and Association for Educational Communications and Technology (1998).*

Developed by Mike Eisenberg and Bob Berkowitz, the Big6 is the most widely known and widely used approach to teaching information and technology skills in the world. The Big6 integrates information search and use skills along with technology tools in a systematic process to find, use, apply, and evaluate information for specific needs and tasks. This process model of practice and study encompasses six stages for successful information problem solving:

1. Task Definition
   1.1 Define the information problem
   1.2 Identify information needed in order to complete the task (to solve the information problem)
2. Information Seeking Strategies
   2.1 Determine the range of possible sources (brainstorm)
   2.2 Evaluate the different possible sources to determine priorities (select the best sources)
3. Location and Access
   3.1 Locate sources (intellectually and physically)
   3.2 Find information within sources
4. Use of Information
   4.1 Engage (e.g., read, hear, view, touch) the information in a source
   4.2 Extract relevant information from a source
5. Synthesis
   5.1 Organize information from multiple sources
   5.2 Present the information
6. Evaluation
   6.1 Judge the product (effectiveness)

6.2 Judge the information problem-solving process (efficiency)
*Eisenberg, Mike, The Big6 Information Literacy for the Information Age, Big 6 Associates, LLC, ( 2001, 2002, 2003). Retrieved from hhtp://www.big6.com/showarticle/php?id=16*

## Technology Access

Students, parents, teachers, classified employees, administrators and the community have access to technology at all sites. Computers and peripheral equipment are strategically placed in classrooms to best meet the needs of students. Ninety-nine percent of MHUSD schools have computer labs where students, parents, and staff go for whole group lessons and project work. All students and teachers have access to computers both during and after the school day, however, a number of the computers at school sites are antiquated.

All schools within the district have a student to computer ratio of approximately 5:1. Students have an opportunity to work on a computer and be exposed to expand activities in the core academic areas, utilizing mapping and scaffolding techniques to enhance critical thinking, expand research options and participate in online classroom curricular simulations. Every school has a LAN and is connected to the district WAN; three schools are connected via T-1 and the remaining eleven schools are connected via fiber. One hundred percent of the classrooms have at least one Internet access drop, which provides general network, email and Internet connectivity for teachers and students. In alignment with the National Technology Standards annotated in this document, students are able to access the Internet to investigate current issues and utilize web tools for research, problem solving and decision-making.

All schools and most classrooms have television/monitors and each school owns at least one LCD projector for teachers/group presentations in the classrooms.

## Current Use of Technology

Morgan Hill Unified School District provides all students and staff access to technology and applications through a coordinated, articulated process. The District uses a variety of hardware and software to assist teachers in providing content standards-based instruction to maximize student achievement.

Teachers use a variety of desktop computers for productivity, teaching and learning. Some teachers develop multimedia presentations and connect to the Internet to access numerous educational and otherwise informative web sites to support textbooks and other instructional materials. Printers are available to students and teachers in each classroom. Peripherals are available at the various school sites include television monitors, VCR's, digital cameras, scanners, and LCD projectors.

Multiple software programs are used at the school sites to support the state-adopted content standards for teaching and learning. Teachers and students are using integrated programs such as *Microsoft Office, PhotoShop, Dreamweaver, iMovie, etc.* as well as other multimedia tools, and grading programs. They are also using content specific software such *Compass Learning, Advanced Academics, Accelerated Reading, STAR Math, and Harcourt Brace*

*Mathematics*. All schools also use the companion software to state/district adopted textbooks. School sites, in consultation with the Director of Technology, Director Curriculum and Assessment, and the Assistant Superintendent of Educational Services and the California Learning Resource Network, select additional content specific software to align with the California Academic Content Standards and the appropriate grade level curriculum. In addition, technology resources from the California Learning Resource Network (CLRN) are currently being annotated in the MHUSD K-12 standards-based curriculum guides in Language Arts, Mathematics, Science, and Social Studies. English Language Learners and Special Education students are using assistive technology tools such as Leapfrog. Migrant Students use the PASS program for credit retrieval. Books/content on CD, text to speech software such as *Dragon Naturally Speaking* and project-based learning activities utilizing the Internet provide context for teaching general literacy skills and acquiring background knowledge while utilizing a variety of media. Gifted and Talented students are all mainstreamed into the regular classroom and/or grouped and have access to technology. These students may perform at an accelerated rate and meet the student outcomes as outlined in Section E: Student Technology Outcomes of this document, and the student performance goals based on the California state content standards as outlined in the Local Educational Agency Plan (LEAP) as evidenced by the award-winning student generated film "Two Rivers Run Through It: A History of Coyote Valley". This project was presented to the San Jose Coyote Development Committee.

Currently in grades K-6, word processing is a productive tool with specific instruction in the area of keyboarding. Specific software titles are used to reinforce instruction across all curriculum areas as well as develop initial knowledge and skills, reinforce previous learning and enrich academic areas. Student writing is produced daily utilizing the Writer's Workshop Model. Simulations are used with large groups of students to encourage group participation. The elementary library is also a technology center with direct access to online resources and other educational programs.

All schools have a library with elementary staffed with a 5 hour general clerk typist assigned to the library and secondary schools share two credentialed librarians. Staff provides assistance to students in selecting appropriate resources for literacy and other curriculum areas. Each library has computers for research and card catalog access. All library staff have been trained on the use of *Athena*, a database program to track library and textbook inventories, cataloging and books/materials circulation. This program has been in place in all libraries since the 2000-2001 school year.

One elementary school site has entered into a partnership with Stanford University. They are currently piloting a web-based computer mathematics program from Stanford University, Educational Program for Gifted Youth (EPGY)**,** to advance the learning of their Gifted and Talented students. In addition, they are piloting this program with their Title I students as a remediation tool.

In the middle schools, grades 7-8, an elective course offering in computer technology includes the use of simulations to develop student competency in the areas of data management, word processing, and spreadsheet software. Compass Learning is used in the middle schools for general instruction, remediation and acceleration of students in the areas

of reading and language arts. In addition Scholastic, Read 180 will be used as a tool to close the achievement gap of our middle school students. The computer labs are available for use by students and staff on a drop-in basis and for independent study and peer/computer tutoring. Teachers are encouraged to bring in small groups and entire classes for exploration in any subject area. The school year book and newspaper are produced using computers.

Live Oak High School and Central Continuation High School were awarded a Digital High School Grant in the summer of 1997. As a result of this grant, each of the school's classrooms now has at least one computer with Internet access. Each department has also targeted curricular outcomes for students to achieve with the integration of technology.

During the 2002-2003 school year the Technology Agriculture Science Academy (TASA) was put in place at Live Oak High School. Using Agriculture and Technology as an overarching theme, teachers work in grade level teams for the core subjects of science, history, English, math, and agriculture electives. Curriculum is integrated and teachers develop advanced and unique lessons, assignments and assessments to meet the California content standards for all students of all levels. College, career development, community service, and leadership are all part of this small learning community. Teachers and parents stay connected through a student advocate (e.g., one of the TASA teachers, who calls home regarding absences, grades or other concerns). The agriculture teachers meet with the Community Industry Agriculture Advisory Board on a monthly basis and reviews curriculum and activities of the program. Professionals from industry also mentor students throughout the year. This program is also connected to the community colleges and has direct contact with Cal Poly, UC Davis and Fresno State University.

Computer labs at Live Oak High School are available on a sign-up basis for individual students and classes to use for research, creating products, and communications. Students using multimedia technology create the school newspaper, yearbook, web sites, and Beaux Arts publications. A software program called "Choices" is available through the counseling department for students to use to research career and higher education options.

Sobrato High School has mini computer labs within each curricular building. The staff and students also utilize rolling laptop carts for flexible access to technology. Each student is given an account on the student server where all projects and documents are housed in a portfolio for teacher review. This allows regular ongoing student/teacher conversation and feedback. Students use multimedia technology to create the school newspaper and yearbook as well as individual student projects.

Both comprehensive high schools are utilizing the TV production studio at Sobrato High School. Students are being trained to produce various programs. Students most recently interviewed State Superintendent Jack O'Connell during his visit to the district and broadcast the interview on the Morgan Hill Access TV channel. Plans are underway to have students tape, edit, produce and distribute the bi-monthly school board meetings on the newly created MHUSD educational TV channel.

The 3 high schools continue to work to assist students with meeting the California High School Exit exam (CAHSEE) graduation requirement. Students are currently using

Advanced Academics as an online CAHSEE review course in English language arts and mathematics. This experience is enhanced with an online credentialed teacher available to students 24/7. EL students are supported by Spanish speaking teachers. Access to this program occurs within the school day, as well as before and after school. In addition, students can access this curriculum at any time and from any location outside of the school day. This program was funded using the intervention monies provided by the state. Seventy-two percent of the students in the class of 2006, grade 12, who participated in Advanced Academics passed the CAHSEE.

In addition to a Computer Technology course, ROP courses are offered in programming, computer assisted drafting, journalism and business education to meet this requirement. Students will also develop their technological skills and knowledge in each of their subject area courses.

Technology used in teaching and student presentations includes: *SmartBoards*, wireless laptops that contain *Power Point*, *Word* and *Excel*, and TI83+ calculators for math. Global Positioning Technology has been integrated into the curriculum. All students regularly use word processing and the Internet in these classes.

Elementary and middle school sites offer after school intervention programs that include the use of technology by students. Compass Learning, a web-based curriculum resource is being used in the areas of reading, language arts and mathematics. Many teachers open their classrooms to students to have access to computers for research and reinforcement of skills taught. Several schools in the district have purchased Lightspeed units, a voice-enhancement system to support special education and English language learners in auditory processing.

One of the greatest areas of need for teachers and administrators was a data warehousing system that would allow information from state and local summative and benchmark assessments to be downloaded into one centralized place. This will provide educators the ability to track student performance based on multiple assessments, identify areas for remediation and/or acceleration and provide parents with a complete academic profile of their student. The district has recently purchased *Datawise*, which will provide data warehousing giving all teachers student performance data in real time to inform their instruction. It will also provide site and district administrator the ability to based decisions regarding the instructional program on student performance data.

## Innovation

Two programs previously mentioned are innovated in nature. The Technology Agriculture Science Academy (TASA) at Live Oak High School and the Stanford University's Educational Program for Gifted Youth, which is used at one elementary site. This computer based project is currently focused on mathematics and is aimed at delivering a rigorous mathematics curriculum to students who have been identified as gifted in the area of mathematics.

**Percentage of San Martin/Gwinn School Students**
**Scoring Proficient or Advanced on CST in Mathematics**

| Grade Level | 2004 | 2005 | 2006 | 3 Year Growth |
|---|---|---|---|---|
| 2 | 39 | 41 | 43 | +4 |
| 3 | 56 | 48 | 63 | +7 |
| 4 | 22 | 48 | 41 | +19 |
| 5 | 19 | 58 | 60 | +39 |
| 6 | 28 | 21 | 30 | +2 |

The district if also extremely proud of the 2007 Hoffman Award for Technology, The Coyote Valley Project ("Two Rivers Run Through It - A Child's Vision for the Coyote Valley", "the Coyote Valley- Then and Now" and "Two Rivers Still Run Through It - A Child's Vision for the Coyote Valley - Part 2") The Coyote Projects, unique and unprecedented, student-created, multi-media projects chronicle the rich heritage of the Coyote valley as on ongoing project in the Morgan Hill Unified School District. The real world connection and over-arching big idea is guided by the following question:

*"Can children conduct their own historical research and ecological observations in order to make informed recommendations to a governing body before development begins in a community that may be their home?"*

During the first year of the project, 2004-05, forty-eight 5th and 6th graders from two elementary schools at opposite ends of the Coyote Valley, worked collaboratively with over fifty parents, community members, and institutions in order to gather evidence, data and resources; interview and record stories of people familiar with the rich history of the valley; write and narrate scripts for the documentary; and produce the first-ever recorded history of the Coyote Valley. Support and financial assistance for this project came from the Krause Center for Innovation, NASA Jason Project, and the Live Oak Foundation.

By understanding the nature and scope of the history and development of this valley's controversial development, these ten through twelve year olds offered their informed and knowledgeable recommendations to San Jose city leaders, the Coyote Valley Task Force. Through the production of "Two Rivers Run Through It" and the documenting of the past, present, and future of the valley, the students gained a valuable understanding of their role as a citizen in society.

The second year of the project, 2005-06, involved students acting on one of the previous year's recommendations - to further study the Muwekma Indians life and culture and to design an interpretive center highlighting their existence. The students used this primary source document to create a web site on the first people of the Coyote Valley This web site also included collaborative efforts by 1st graders from Gilroy Unified School District at Antonio Del Bono School who used Kid Pix to record the native animals of the valley and 8th graders from the Charter School of Morgan Hill to showcase establishments in the Coyote Valley. The web site is called, "Coyote Valley - Then and Now" and was awarded the Best Collaborative Project at the 2006 California Multi Media Festival.

During the second year of the Coyote Project, the web site, "The Coyote Valley - Then and Now" won the "Best Collaborative Project" from the California Multi Media Festival. That project included the creation of a Native American cultural center, as well as, information on the animals of the valley and establishments presently located there.

During the third year of the project, 2006-07, the students will continue to record the history of the valley from 1860 - the 1950's, make recommendations to the Coyote Valley Task Force, and monitor the health of the streams. First graders in the Oak Grove School District will be adding information to the web site regarding the flora or native plants and trees found in the valley. And high school students in Los Altos will be creating public service announcements about this project that will be shown on public television.

This project began as an extension of the "Earn While You Learn" Program through the Krause Center. Three teachers designed the original concept for this Fellows Project. Each year's project has been submitted for competition in the California Media and Multi Media Festivals and used in the community. Through project-based learning, students at different schools and grade levels have become historians, geographers, scientists, urban planners, videographers, graphic artists, technological engineers, commentators, designers, editors, film makers, publicists, naturalists, and active citizens of their community.

This project was awarded a Live Oak Foundation grant for innovation, creativity, and positive contributions to the community. The first-run of the final product (a Power Point) won "Best Documentary" at the California Multi Media Festival. With the additional footage and movie format, the second edition won not only the "Best History Project" but also the "Best Over-all Elementary School Project in the State" from the Media Festival and an award of $1,000. Viewings, awards, and recognitions followed from the California Pioneers, the California Historical Societies, the Krause Center, and the Morgan Hill Historical Society.

Both comprehensive high schools are utilizing the TV production studio at Sobrato High School. Students are being trained to produce various programs. Students most recently interviewed State Superintendent Jack O'Connell during his visit to the district and broadcast the interview on the Morgan Hill Access TV channel. Plans are underway to have students tape, edit, produce and distribute the bi-monthly school board meetings on the newly created MHUSD educational TV channel.

## Appropriate Student Access

MHUSD acknowledges the need to ensure that all students have appropriate and equal access to technology, internet resources and information to assist them in meeting state content standards and academic success. While the district has an approximate computer to student ratio of 6 to 1, a number of the computers are outdated (Windows 98, etc.) and are not able to access the internet with any degree of reliability. This hampers our ability to provide students with appropriate online curricular resources. In addition, at some schools the technology infrastructure is old and limits ease of accessibility.

At the same time the district recognizes that not all resources on the Internet are appropriate for students. During 2000-2001 the District implemented Board Policy and Administrative Regulations 6163.4 Student Use of Technology. This policy includes a Computer System/Internet/Email Expectable Use Agreement (CSIEEUA) with a signature line for students, parent/guardians, and employees signed and returned at the beginning of each school year. Student access goal is outlined in objective 4 on page 27 of this document.

## Parent Accessibility to Teachers and Administrators

MHUSD Board of Education continues to place a high priority on informing the community at large about MHUSD schools, as it is crucial that the community is aware of what is happening for students in the district. The MHUSD web site www.mhu.k12.ca.us serves as a comprehensive overview of district information and programs. The front page contains *Breaking News*, which is updated on a daily basis with information forwarded from the Board of Education, the Superintendent, the various departments within the district and individual school sites. This section always contains the most pertinent up to the minute information regarding the district. The web site also includes the Board of Education agendas and minutes; an administration and staff directory, with pertinent contact information, including phone numbers and email addresses; district map; school lunch menus; district library catalogues; district policy manual; and links to each school's web site. Under *Human Resources* visitors will find current job openings in the district with a link to online application service and information regarding employee benefits. *Educational Services* includes SARC reports; assessment information including each sites Academic Performance Index (API); state and district standards in all core curricular areas; student handbook and calendar; interdistrict/choice placement guidelines, including the Board Policies and Administrative regulations, as well as the application forms; a list of student intervention programs; and task force and district committee information as well as a recently developed Special Education site. Under *Technology* visitors will find the MHUSD Technology Plan; web guidelines; the board policy and form for parents to withhold authorization to film or photograph minors for publication; links to each school's web site; links to community and curricular web sites of interests. The *Enrollment Center* provides registration information for parents who wish to enroll in MHUSD.

New phone systems have been installed in many campuses through remodeling projects, which has facilitated improved two-way communication between home and school. Telephones in the classroom have allowed teachers to make home contact immediately when needed and voicemail has streamlined the task of parent/teacher/administrator communication. The district is in the process of planning a districtwide implementation of a VoIP solution to further enhance communication within the district as well as with the parent community.

The enhancement of internal and external communications has been a focus for the district for the past two years as stated in Board Goal number four: "The District values the partnership among home, school, and community to support student academic achievement." The district is working to provide a variety of venues to facilitate communication with parents, employees and the community by incorporating technology as a vehicle to allow parents and staff access to real-time information regarding student progress and school activities, and allowing parents access to online standards-based curriculum to better support their students. All schools also use ConnectEd messages to communicate with parents in their community, regarding a variety of issues including school safety

and school activities. All school and district web sites provide additional online information for parents.

To this end, all employees have been provided with an email address and access to computers. The district has upgraded to Microsoft Exchange for email which has allowed for improved parent/teacher/administrator and employee communication. In addition, the district has implemented ConnectEd and is investigating Call Command to determine the best cost effective solution. Both systems enable administrators to schedule, send, and track personalized voice messages to thousands of students, parents, and staff in minutes. This has greatly enhanced the home/school/district connection along with school site and district web pages. A newly developed district office newsletter will be distributed to all employees beginning April, 2007. Traditional means of communication such as monthly and/or quarterly newsletters from the principal are in place at all school sites. In addition all site and district office administrators communicate with parents by email and a large number of teachers communicate with parents by email. Parents who do not have access to email at home can visit the local library and use the computers that are available to the public.

Sobrato High School utilizes the Pinnacle system from Excelsior Software, Inc., The Pinnacle system consists of an extensive set of tools for making assessment and attendance information available to students, parents and administrators. Important components of the program include the following:

- Information regarding student demographics, grades, attendance, and discipline information is immediately available to teachers and administrators and can be customized for reports, graphs and charts.
- The student viewer, phone viewer and parent internet viewer allow students and parents to obtain progress reports, report card information, missing assignments, teacher comments, and future class work activities from school or home.
- Discipline records management between the school office and teacher grade books is automatic as is the scheduled generation of letters to parents based on certain thresholds.
- The Pinnacle system also provides an automated email notification system for parents and/or administrators. This allows the grade book system to send messages to parents when students are falling below average or missing assignments. Parents can also request attendance reports to be sent to them on a daily basis.
- The Pinnacle system downloads grades and comments from a teacher's online grade book directly to the report card or progress report function eliminating the need for teachers to use bubble grade sheets to report grades.
- Teachers have access to a seating plan with a photograph of each student and their assigned seat and parent contact information displayed.
- Administrative and/or teacher use of Palm Pilots can track group and individual student performance and attendance, view student schedules, and track student discipline.
- The attendance accounting function will be improved. If the office is aware of field trips, teacher grade books are annotated immediately. When course changes are made in the counseling office they are also made in teacher's grade books. The online attendance function will replace the Scantron forms the school currently uses.
- Pinnacle integrates with SASIxp and runs on either a DOS or MAC platform.

Sobrato High School has utilized a trainer-of-trainers model with a core group of educators and SASI technical staff from the district office participating in Pinnacle training. The success of the Pinnacle system will be will be re-evaluated in light of newly developed software in the area of attendance accounting before decisions are made regarding expansion to other schools.

| OBJECTIVE 1: Staff will use technology to assist in student assessment & record keeping and to reduce time and increase efficiency for teacher administrative tasks in support of meeting individual student academic needs. | | | |
|---|---|---|---|
| **Strategy** | **Benchmarks** | | |
| | **Year 1** | **Year 2** | **Year 3** |
| | **K-12** | **K-12** | **K-12** |
| Student attendance will be submitted electronically at all secondary sites. | The success of the Pinnacle system at one pilot site will be re-evaluated in light of newly developed software in the area of attendance accounting before decisions are made regarding expansion to other schools during the 2007-08 school year. | 50% of the secondary schools will have online attendance accounting in place. | 100% of the schools in the district will have online attendance accounting in place. |
| Grade books,and parent viewer will be implemented as funding allows. | 50% of the secondary schools will implement grade book and parent viewer. | 100% of the secondary schools in the district will implement grade book and parent viewer. | 50% of the elementary schools will implement grade book and parent viewer. |
| | **Person Responsible**<br>Principals & Technology Department | | |
| | | | |
| Implement Datawise, a data warehousing system. | Implement Datawise as a data tracking system and train 100% principals and 100% of the ESD clerical staff in its use.<br><br>Purchase Wireless Generation electronic assessment for grades K-2 for 100% of elementary schools. | Train 25% of K-12 teachers in the use of Datawise.<br><br>Train 100% of K-2 teachers in the use of Wireless Generation. | Train 50% of K-12 teachers in the use of Datawise. |
| | **Person Responsible**<br>Principals, Educational Services, and Technology Department | | |
| MONITORING & EVALUATION OF OBJECTIVE: Staff use of technology will be monitored and accessed with CTAP2 Staff Technology Use Survey and district attendance records. A survey of resources and materials available to staff and parents will be conducted on an annual basis. **Technology Department** | | | |

## Student Record Keeping and Assessment

With the implementation of the MHUSD student information system outlined on page 42 the collection and storage of student and family data has become streamlined and more efficient. Student records can be accessed from anywhere in the district rather than just at the school site or the

district office. Information is transferred easily when students change schools within the district. Technology has also allowed us to become more and more data driven in the decision making and instruction as the Educational Services Department is able to pull data form many sources to compile reports for principals, teachers, and administrators on all students or specific populations. As MHUSD moves toward full implementation of the software, teachers and eventually parents will have access to specific data and information. See Objective 1 in the section above, Parent Accessibility to Teachers and Administrators.

## Adult Literacy

The Morgan Hill Unified School District's Community Adult School (CAS) is an integral part of the school district providing adult education courses to the general community. Adult education offers a variety of courses in the core content areas, especially focusing on adult literacy. CAS also incorporates the acquisition of technology skills in many courses. Classes and certifications are offered in computer basics, data entry, eBay Basics, Excel, Internet and e-mail, MS Office, PowerPoint, Quicken Basics, Quickbooks, and Windows XP applications. The CAS offers English as a Second Language classes. Practical English literacy instruction is provided through beginning to advanced levels. Vocational ESL including classes focused on health careers, industrial and technology, business, as well as citizenship classes are also offered. These classes offer language skills that individuals need to become successful employees, active community members and informed citizens. Adult literacy classes are also offered. All courses are aligned with district content standards and are developed in collaboration with the Educational Services Division and the Technology Department. Courses are offered at various sites around the district as well as the main Adult Education campus. All programs are open during the day and in the evenings.

The Community-Based English Tutoring (CBET) Program, funded by Title 5, is using Leapfrog Schoolhouse technology to provide adult English language instruction to parents/guardians of elementary students. This program has been in place since fall, 2006. We are currently evaluating this program and looking at expanding the Leapfrog program into the regular school day for EL students.

Parents who do not have access to a computer or the Internet at home can come to the Community Adult School to get online and access information regarding their child's school or the district from the school and district websites. Many middle school and high school students can also work with parents to assist them in learning to access information on the Internet at their school computer labs, the school library or the Morgan Hill Public Library. In addition, school sites are working with parents of English learners as part of their English Language Advisory Committee (ELAC) meetings.

Courses are offered at various sites around the district as well as the main Adult Education campus. Students and teachers are directed to the Adult Education courses in basic computers. The CAS principal and staff collaborate with the district administration to identify community needs and funding resources to maximize the use of technology to support adult learning.

## District's Curricular Goals

The Morgan Hill Unified School District's Board of Education have developed a belief statement and established curricular goals for the 2006-2007 school year that focus on student learning and

closing the achievement gap. Aligned with state and federal assessments these goals support all students meeting high state and district academic standards.

**Belief Statement**

The Morgan Hill School District values learning and believe respect is the foundation upon which the school and district community is built. We believe that students, teachers, administrators, and support staff are supported in achieving their personal potential when, through school and district policies and practices, we:

- Recognize and accept individual differences
- Develop clear expectations, high academic standards, and meaningful assessments
- Develop the necessary skills to become life long learners
- Support an emotionally and physically safe school and district culture
- Expand expectations for excellence based on researched-based educationally sound instructional practices
- Develop a collaborative climate where all individuals are known and valued
- Together build a strong foundation for excellence at all levels

MHUSD Board Goal 1 focuses on student achievement: Increase overall academic achievement for all students while aggressively closing the achievement gap between all numerically significant subgroups. A safe, orderly and supportive environment shall be the foundation for student learning and achievement. A clearly defined core curriculum, aligned with state standards is being used district-wide and educators are implementing effective instructional strategies. Intervention strategies including online curriculum is used to support at-risk learners, to accelerate gifted students' learning and to provide all students a broad range of educational experiences through technology. Data is used from the classroom to the board room to inform instruction and guide program decisions.

The Student Technology Standards support students use of technology at each grade level so that technology becomes an integral part of helping students reach high academic standards:

**Student Technology Standards**

1. Basic Technology Operations
    - Student demonstrates a sound understanding of the nature and operation of technology systems.
    - Student is proficient in the use of technology.
2. Technology as A Productivity Tool
    - Student identifies the capabilities and limitations of a variety of hardware/software and uses technologies to increase productivity.
    - Student uses technology to enhance learning and promote creativity.
3. Technology as a Communication Tool
    - Student uses a variety of media and formats to communicate, collaborate, publish, and interact with peers, experts, and other audiences.
4. Technology as a Research Tool
    - Student uses technology to locate and collect appropriate information from a variety of sources to process data and report results.
5. Ethical Use of Technology

- Student values and uses technology in an ethical and responsible manner and is an advocate for others to do the same.

Core Content Standards identify the knowledge and skills necessary for student achievement. The District adopted curriculum content standards in English/language arts, mathematic, science, social science, and visual and performing arts that align with State Curriculum Content Standards and frameworks. This was done in order to align more closely with the State assessment system.

To reach all of the above goals, the district has created the following Instructional Goals and Objectives for Technology:

1. Enhance achievement and learning through the use of technology.
    1.1 All K-12 classrooms will have technology that supports learning and assessment.
    1.2 Staff, parents and students will have appropriate access to digital information.
    1.3 All elementary, middle, and comprehensive high schools will implement alternative assessments as part of the grading process.
2. Promote integration of technology into instruction to ensure students meet or exceed state academic content standards and district technology performance standards.
    2.1 All staff, parents and students will become aware of the content and technology standards.
    2.2 All K-12 students including Special Education, GATE, and ELL will have access to content standards-based lessons that integrate technology.
    2.3 All sites will have a technology plan that addresses both content and technology standards.
3. Provide opportunities for students to develop information literacy skills to become life long learners.
    3.1 All K-12 students including Special Education, GATE, and ELL will have opportunities to develop information literacy skills while mastering English-Language Arts Content Standards core content.
    3.2 All 9-12 students including Special Education, GATE, and ELL will have access to improved career awareness opportunities.
    3.3 All elementary, middle, and high school students including Special Education, GATE, and ELL will have access to electronic information from the classroom.
    3.4 All elementary, middle, and high school students including Special Education, GATE, and ELL will have access to online resources.
4. Provide opportunities that accelerate learning for students at academic risk.
    4.1 All students including Special Education, GATE, and ELL well have access to a variety of software that accommodates their diverse needs and accelerates their learning.
    4.2 All students including Special Education, GATE, and ELL and community will have access to electronic information beyond the school day.

## Evaluation & Monitoring

The implementation of the Curriculum contained within the Technology will be monitored through tri-annual meets of the Planning Team, composed of the people mainly responsible for the implementation. These people include:

| Person | Position |
|---|---|
| Michael Johnson | Assistant Superintendent Educational Services |
| Arlene Machado | Director Technology & Enrollment |
| Pat Blanar | Director of Curriculum & Assessment |
| P. J. Foehr | Elementary Principal |
| Thomasine Stewart | High School Assistant Principal |
| Mitzi Clark | Data Network Technician |

These meetings will occur in January & March of each year. Status updates on what has happened and what is being planned in each area will be shared. Any challenged will be discussed and problem-solved. In addition the group will annually review the results of data collections and revise the plan based on this data.

The following objectives are designed to describe how technology will be used to bring about the increase percentage of students reaching proficiency in English/language arts and mathematics.

| **OBJECTIVE 2:** Promote integration of technology into instruction to ensure students meet the state/district content area standards in language arts and mathematics and district technology standards. | | | |
|---|---|---|---|
| **Strategy** | **Benchmarks** | | |
| | **Year 1** | **Year 2** | **Year 3** |
| | **K-12** | **K-12** | **K-12** |
| Review, identify, recommend, and acquire appropriate digital resource materials including all district adopted textbook supplemental technology resources in language arts that are standards-based for all students to supplement existing core curriculum. | For example:<br><br>**30% of all K-3 students will have access to appropriate digital resource materials in Language Arts such as-** Beginning Reading for the Real World; Learn to Read & Spell with Phonics & Instant Sound, Compass Learning, Leapfrog, ClassLink<br>**30% of all 4-6 students will have access to appropriate digital resource materials in Language Arts such as** New Century Integrated Instruction System; Learn to Read & Spell with Phonics & Instant Sound; Writer's Companion**, Compass Learning, ClassLink**<br>**30% of all 7-8 students will have access to appropriate digital resource materials in Language Arts such as -** New Century Integrated Instruction System; Writer's Companion, Compass Learning, Read 180, ClassLink<br>**30% of all 9-12 students will have access to appropriate digital resource materials in Language Arts such as -** New Century Integrated Instruction System; Writer's Companion, Compass Learning, Read 180, Advanced Academics, ClassLink | For example:<br><br>**60% of all K-3 students will have access to appropriate digital resource materials in Language Arts such as-** Beginning Reading for the Real World; Learn to Read & Spell with Phonics & Instant Sound, Compass Learning, Leapfrog, ClassLink<br>**60% of all 4-6 students will have access to appropriate digital resource materials in Language Arts such as** New Century Integrated Instruction System; Learn to Read & Spell with Phonics & Instant Sound; Writer's Companion**, Compass Learning, ClassLink**<br>**60% of all 7-8 students will have access to appropriate digital resource materials in Language Arts such as -** New Century Integrated Instruction System; Writer's Companion, Compass Learning, Read 180, ClassLink<br>**60% of all 9-12 students will have access to appropriate digital resource materials in Language Arts such as -** New Century Integrated Instruction System; Writer's Companion, Compass Learning, Read 180, Advanced Academics, ClassLink | For example:<br><br>**100% of all K-3 students will have access to appropriate digital resource materials in Language Arts such as-** Beginning Reading for the Real World; Learn to Read & Spell with Phonics & Instant Sound, Compass Learning, Leapfrog, ClassLink<br>**100% of all 4-6 students will have access to appropriate digital resource materials in Language Arts such as** New Century Integrated Instruction System; Learn to Read & Spell with Phonics & Instant Sound; Writer's Companion**, Compass Learning, ClassLink**<br>**100% of all 7-8 students will have access to appropriate digital resource materials in Language Arts such as -** New Century Integrated Instruction System; Writer's Companion, Compass Learning, Read 180, ClassLink<br>**100% of all 9-12 students will have access to appropriate digital resource materials in Language Arts such as -** New Century Integrated Instruction System; Writer's Companion, Compass Learning, Read 180, Advanced Academics, ClassLink |
| | **Person Responsible**<br>Principals & Technology Department | | |
| | | | |

| | | | |
|---|---|---|---|
| Review, identify, recommend, and acquire appropriate digital resource materials including all district adopted textbook supplemental technology resources in mathematics that are standards-based for all students to supplement existing core curriculum. | **30% of all K-3 students will have access to appropriate digital resource materials in mathematics** - Elementary Math; Combining & Breaking Apart Numbers; Lightspeed Achieve Now, K-2 Mathematics, Compass Learning, ClassLink<br>**30% of all 4-6 students will have access to appropriate digital resource materials in mathematics** - Introduction to Algebra; Get Ahead in Math; Geometry, Statistics & Probability, Compass Learning, ClassLink<br>**30% of all 7-8 students will have access to appropriate digital resource materials in mathematics** - Get Ahead in Math; Intro to Algebra, Compass Learning, ClassLink<br>**30% of all 9-12 students will have access to appropriate digital resource materials in mathematics** - Interactive High School Mathematics; Endgame! Geometry & Trigonometry, Compass Learning, Advanced Academics, ClassLink | **60% of all K-3 students will have access to appropriate digital resource materials in mathematics** - Elementary Math; Combining & Breaking Apart Numbers; Lightspeed Achieve Now, K-2 Mathematics, Compass Learning, ClassLink<br>**60% of all 4-6 students will have access to appropriate digital resource materials in mathematics** -Introduction to Algebra; Get Ahead in Math; Geometry, Statistics & Probability, Compass Learning, ClassLink<br>**60% of all 7-8 students will have access to appropriate digital resource materials in mathematics** - Get Ahead in Math; Intro to Algebra, Compass Learning, ClassLink<br>**60% of all 9-12 students will have access to appropriate digital resource materials in mathematics** - Interactive High School Mathematics; Endgame! Geometry & Trigonometry, Compass Learning, Advanced Academics, ClassLink | **100% of all K-3 students will have access to appropriate digital resource materials in mathematics** - Elementary Math; Combining & Breaking Apart Numbers; Lightspeed Achieve Now, K-2 Mathematics, Compass Learning, ClassLink<br>**100% of all 4-6 students will have access to appropriate digital resource materials in mathematics** - Introduction to Algebra; Get Ahead in Math; Geometry, Statistics & Probability, Compass Learning, ClassLink<br>**100% of all 7-8 students will have access to appropriate digital resource materials in mathematics** - Get Ahead in Math; Intro to Algebra, Compass Learning, ClassLink<br>**100% of all 9-12 students will have access to appropriate digital resource materials in mathematics** - Interactive High School Mathematics; EduGame! Geometry & Trigonometry, Compass Learning, Advanced Academics, ClassLink |
| | **Person Responsible**<br>Educational Services & Technology Department | | |
| School site & tech plans will be integrated and updated to address both content and technology standards. | 40% of the school site & tech plans will address the integration of technology into the core curriculum areas. | 80% of the school site & tech plans will address the integration of technology into the core curriculum areas. | 100% of the school site & tech plans will address the integration of technology into the core curriculum areas. |
| | **Person Responsible**<br>Principals, Technology Department, & Educational Services | | |
| MONITORING & EVALUATION OF OBJECTIVE 1: Student achievement of content standards will be monitored and assessed with the California Standards Tests, the California Standards 4th & 7th grade Writing Test, the CELDT, California Standards Test in English Language Arts & Mathematics, the High School Exit Exam and district benchmarks for content standards on the K-6 standards-based report cards. A review of the core curriculum guides for inclusion of content based lessons will be conducted on an annual basis. An annual assessment report will also be compiled and presented to the Planning Team. **A** survey of resources and materials available to students will be conducted on an annual basis. **Educational Services & Technology Department** | | | |

**OBJECTIVE 3:** Students will develop the information literacy skills to be able to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information in order to become life long learners, as measured by student projects and teacher observation.

| Strategy | Benchmarks | | |
|---|---|---|---|
| | **Year 1** | **Year 2** | **Year 3** |
| | **Grades 6-12** | **Grades 6-12** | **Grades 6-12** |
| Provide students with direct instruction to ensure the development of information literacy skills while mastering English-Language Arts Content Standards core content. | 100% of the students will demonstrate competency by:<br><br>Identifying the structure of printed materials which provide information, asking questions for clarification and understanding, and grouping related ideas and maintain a consistent focus<br><br>Describing the structure and purposes of various reference materials (e.g. the Internet, dictionary, thesaurus, web sites, and atlas).<br><br>Using titles, tables of contents, chapter headings, glossaries, indexes, and internet searches to locate information<br><br>Using organizational features of electronic text (e.g., bulletin boards, databases, keyword searches, e-mail addresses) to locate information<br><br>Differentiating between primary and secondary sources. | 100% of the students will demonstrate competency by:<br><br>Identifying the structural features of popular media (e.g., newspapers, magazines, and online information) and use the features to obtain information.<br><br>Planning and conducting multiple-step information searches by using computer networks and modems.<br><br>Writing research reports posing relevant questions with a scope narrow enough to be thoroughly covered; support the main idea or ideas with facts, details, examples, and explanations from multiple authoritative sources (e.g. speakers periodicals, online information searches); and include a bibliography.<br><br>Extracting appropriate and significant information from the text, including problems and solutions. | 100% of the students will demonstrate competency by:<br><br>Recognizing that accurate and complete information is the basis for intelligent decision making<br><br>Writing research reports by defining a thesis; using a variety of primary and secondary sources distinguishes the nature and value of each; organizes and displays information on charts, maps, and graphs.<br><br>Using clear research questions and suitable research methods (e.g., library, electronic media, and personal interview) to elicit and present evidence from primary and secondary sources. |
| | **Person Responsible**<br>Site Administrators, Technology Leaders, Teachers, Counselors | | |

| Strategy | Benchmarks | | |
|---|---|---|---|
| | **Year 1** | **Year 2** | **Year 3** |
| Annual Multimedia Student Showcase at the high school level will be held for presentation of student work in the area of technology integrated into the curriculum content. | 30% of high school students will participate in the Annual Student Showcase to be held in the spring. Students will have content standard/technology rubric to follow as they develop their projects. | 60% of high school students will participate in the Annual Student Showcase to be held in the spring. Students will have content standard/technology rubric to follow as they develop their projects. | 90% of high school students will participate in the Annual Student Showcase to be held in the spring. Students will have content standard/technology rubric to follow as they develop their projects. |
| | **Person Responsible**<br>Site Administrators, Technology Leaders, Teachers, Counselors | | |

MONITORING & EVALUATION OF OBJECTIVE 3: Opportunities for students to develop the necessary skills to become life long learners will be monitored and assessed through the number of students participating in the multimedia showcase, increase in quality of multimedia student projects as measured by the multimedia rubric, the California Standards Tests, the California Standards 4th & 7th grade Writing Test school-to-career standards in technology, and the High School Exit Exam. **Educational Services and Technology Department**

| **OBJECTIVE 4:** All students will have access to the use of technology in order to meet the state content standards and achieve greater academic success. | | | |
|---|---|---|---|
| **Strategy** | **Benchmarks** | | |
| | **Year 1** | **Year 2** | **Year 3** |
| Implement technology that supports access for all students, including special education, GATE, ELL to the K-12 core curriculum. This includes textbook and software as follows:<br>**Grades K-5:**<br>Mathematics - Harcourt Brace<br>Language Arts - Houghton Mifflin<br>Science - Harcourt Brace<br>Social Studies – Houghton Mifflin<br>**Grades 6-8:**<br>Mathematics - Prentice Hall & McDougal Littell<br>Language Arts – McDougal Littell.<br>Science – Glencoe<br>Social Studies - McDougall Littell<br><br>This also includes supplemental software that supports critical thinking/problem solving such as Inspiration, Kidspiration, and Cognitive Tutor as well as software that is content specific such as Accelerated Reader, Accelerated Math, and STAR. | 30% of K-12 teachers will provide access to technology for 100% of their students in the areas of mathematics, language arts, science & social studies. | 50% of K-12 teachers will provide access to technology for 100% of their students in the areas of mathematics, language arts, science & social studies. | 60% of K-12 teachers will provide access to technology for 100% of their students in the areas of mathematics, language arts, science & social studies. |
| | **Person Responsible**<br>Principals, Technology Teacher Leaders Technology Department & Educational Services | | |
| | **Year 1** | **Year 2** | **Year 3** |
| Implement supplemental technology that supports collaborative and interest-based learning beyond the school day such as Computer Clubs 4-12; Compass Learning, ClassLink, Advanced Academics, & Stanford University's Educational Program for Gifted Youth**.** | 50% of all K-12 schools will implement supplemental technology programs before and/or after the school day. | 75% of all K-12 schools will implement supplemental technology programs before and/or after the school day. | 100% of all K-12 schools will implement supplemental technology programs before and/or after the school day. |
| | **Person Responsible**<br>Principals & Technology Teacher Leaders | | |
| | **Year 1** | **Year 2** | **Year 3** |
| Develop site plans for opening Media Centers/Labs to all students. | 50% of all K-12 schools will increase student access to media centers/labs. | 75% of all K-12 schools will increase student access to media centers/labs. | 100% of all K-12 schools will increase student access to media centers/labs. |
| | **Person Responsible**<br>Principals, Technology Leaders, Library Clerks, and Technology Department | | |
| MONITORING & EVALUATION OF OBJECTIVE 4: Students access to technology will be monitored and assessed through a survey of teachers, and students regarding access to technology hardware and software. In addition site technology plans and implementation plans will be reviewed. | | | |

# 2

# PROFESSIONAL DEVELOPMENT

## Research

"By paying attention to the learner, the learning environment, professional competency, system capacity, community connections, technology capacity, and accountability, technology will be kept in service to learning…the greatest gains in student achievement occur when teachers are trained in the use of technology." (*Milken Family Foundation web site)*

A key element to increasing student achievement for MHUSD students is training for teachers to integrate standards-based technology and information literacy within their curriculum areas. The district has created Essential Standards documents in all subject areas and Curriculum Guides in the areas of Reading, Writing & Foreign Language. Technology outcomes and resources are annotated in each helping the teacher tie the written, taught and tested curriculum to their daily classroom instruction in an effort to maximize student learning. Training is being offered on an ongoing basis to promote implementation.

Thoughtful examination and local experience has developed the following model, which MHUSD believes are the necessary elements to successfully use technology at a school site. At the center of the model is student learning. This is supported by curriculum, tools, and staff development. The model begins with curriculum. Technology is a tool for implementing curriculum. A school staff must know what curricular goals they are attempting to enhance and what desired outcomes they wish to achieve. Student knowledge of the curriculum is the goal. Once the job has been identified, attention can be focused on choosing the tools needed to complete the work. The tools selected are the equipment corner of the triangle. A staff must choose the correct combination of technologies, which will allow students to achieve the curricular goals. Buying tools without a clear vision of the outcomes, activities, and curriculum that is to be improved, is a sure prescription for failure.

School staff must be trained on the equipment, they must be able to affect curriculum and student learning with the equipment, and all staff must know how the management system operates. This makes staff development the key element in effective use of technology. The business world often quotes a truism that "For every dollar spent on equipment, an additional dollar should be allotted for training." This dollar for dollar allotment is an absolute minimum. Realistically, there must be a $2.00 or $3.00 match for every dollar spent on equipment. Lack of commitment to such a staff development plan is the number one reason that school technology programs experience difficulties. Successful schools are able to keep these four elements in balance to keep the program moving forward. (*"Technology Planning"* RIMS, CTAP)

## Introduction

Approximately 35% of all teachers in the district are considered "Proficient" on the CTAP2 Assessment. These individuals are competent in each of the 9 categories that include *General Computer Knowledge and Skills, Internet, Email, Word Processing, Publishing, Databases, Spreadsheets, Presentation Software and Instructional Technology*. Another 25% of the teaching staff in the Morgan Hill Unified School District is at the "Intermediate" level, thus comfortable with the basic use of a computer, the Internet, email, word processing but not as familiar with the aspects of publishing, databases, presentation software, & instructional technology. 40% of the teachers in the district are at the "Introductory" assessment level indicating that they have little familiarity with technology in any format.

Approximately 25% of the administrative staff possess strong technology skills including the ability to author web pages, create and manipulate databases, etc. One hundred percent of the administrative staff has some proficiency with technology in the areas of email, word processing, data disaggregation and utilizing the web to gather information.

Staff development has been based on a volunteer approach. Some schools have conducted whole-school technology based in-services to implement email systems, curriculum software systems and Internet use. This training was the result of site-based decision to improve their technology proficiencies. Sixty-percent of the staffs at the two schools that received State Renovation & Technology Grant funds have completed the CTAP2 assessment. Technology skill assessment at the other sites has not been systematic since the resources at the schools vary.

## Background

During the past four years four Morgan Hill Unified School District teachers have participated in the Foothill College Krause Center for Innovation Earn *While You Learn* (EWYL) Institute. EWYL is a donor-funded institute with yearlong requirements and follow up for San Francisco Bay Area teachers. Teachers were selected through a competitive application process. Each participating teacher was paid a $5000 stipend and received a scholarship for 10 continuing education units of academic credit through Foothill College. Currently 6 teacher leaders have been trained through the Krause Center. Teacher leader training continues as part of our partnership with Foothill College.

These teachers, who have become the Technology Leaders, were involved in a three-week summer institute to learn how to effectively integrate technology into their instructional practice. The program teachers learned:

- Models of pedagogy and curriculum for technology integration
- Strategies to maximize technology integration for student learning
- Best practices for integrating the Internet, word processing, data organization and multimedia into your curriculum
- Technology skills necessary to effectively integrate technology into their curriculum

As a result of participation in this program these teachers were required to:

- Attend the three-week Institute at Foothill College in July

- Attend two Foothill College KCI LINC (Learning in New Media Classroom) classes in October and February/March
- Plan and complete a student-centered technology-related project in their classrooms by April 1
- Submit their student project(s) to the CA Media and Multimedia Festival in April. This is a statewide competition
- Actively promote technology integration in their school/district
- Function as LINC program contact in their school/district
- Mentor and coach two other teachers at their school to integrate technology into their curriculum

The goals of the Earn While You Learn program are:

- To educate teachers in the uses of technology and pedagogical methods to increase student outcomes
- To educate teachers to meet the requirements necessary for California teacher's certification in the area of technology and subject matter learning
- To encourage collaboration and mentoring of teachers with their peers on "Best Practices" in lesson plan development across grade levels/curriculum areas, both on-line and in-person
- To provide access to research and development in up-to-date teaching methodology to meet the various needs and learning styles of today's students
- To provide teachers with college credit for career advancement of educators on their district salary schedules

The two most pressing needs in the district currently center on the need for staff development and technical support. While Britton Middle School and Walsh Elementary School received SRTG (School Technology & Renovation Grant) money, which provides money for a small staff development component, most of the district's 400 teachers are in need of professional training that focuses on the integration of technology into the curriculum to support student acquisition of state standards. One of the requirements of the School Technology & Renovation Grants was that teachers onsite complete the CTAP2 survey. As a result of teacher responses, a group of teachers and parents got together to design a comprehensive staff development program centered around the *Big 6 (See below)* to be offered districtwide to better meet the needs of all teachers and students in the area of technology. It was difficult to expect teachers to provide students with relevant experiences in technology with little or no formal training themselves. The *Technology Academy for Teachers (TAFT)* was born and now serves teachers districtwide and provides a training program for Highly Qualified Teachers as required in the No Child Left Behind legislation. In addition, since most of the funding for this endeavor was provided by the use of Title II funds, teachers from the local Catholic school also participate. A community volunteer from Cisco has assisted us with the district infrastructural needs to better support the learning of students and staff.

A dedicated group of district teachers designed course offerings for the Spring, 2004 *TAFT* program. Participating teachers were paid the hourly contractual rate of $21.63 to attend the sessions. Teachers who would have rather received credit from Foothill College had the option of purchasing ½ units for 6 hours of instruction in lieu of being paid the hourly rate by

the district. Classes were scheduled for 2 hours after school on a Wednesday or Thursday. Enrollment was held to a minimum of 20 students for any class offering Foothill credit/. The only other commitment to the program was that each participant completes the CTAP2 survey online. This requirement will continue to provide us with feedback regarding the current staff development and infrastructure needs of the teaching staff.

## Monitoring & Evaluation

The rubric in CTAP2 is aligned with computer-based applications and the "general and specific" *Factors to Consider* found in the California Commission on Teacher Credentialing (CCTC) Technology Standards for a California Teaching Credential. MHUSD encourages teachers and administrators to complete the CTAP2 assessment to reach the Proficient Level in the following skills: General Computer Knowledge & Skills, Internet, Email, Word Processing, Publishing, Databases, Spreadsheets, Presentation Software, & Instructional Technology. Using the data available for the individual participants, the staff would be able to develop learning plans to improve their technology skills on an ongoing basis. The goal is to have 100% of the teachers in the district taking the CTAP2 Assessment annually and to use the data to guide this plan.

## Professional Development Goal

**Provide ongoing professional development and follow-up for all users to effectively access/retrieve/manipulate/synthesize/communicate information using technology tools in an ethical manner.**

| **OBJECTIVE 1: Teachers will increase their ability to enhance learning and increase student achievement and through the use of technology, as measured by CTAP2 Survey, self evaluation, and principal observation.** | | | |
|---|---|---|---|
| **Strategy** | **Benchmarks** | | |
| | **Year 1** | **Year 2** | **Year 3** |
| | **K-12** | **K-12** | **K-12** |
| Courses & workshops on Compass Learning, Advanced Academics ,Datawise and technology resources aligned to district adopted texts will be offered to teachers. This will assist them in identifying, acquiring, and using appropriate digital resource materials in language arts and mathematics that are standards-based for all students, including Special Education, GATE, and ELL to supplement existing core curriculum. | 20% of K-12 teachers will demonstrate competency by:<br><br>Using the internet for research.<br><br>Using word processing and online interactive lessons to enhance their students' understanding of the language arts standards.<br><br>Using spreadsheets and online interactive sites to enhance their students' understanding of the mathematics standards.<br><br>Evaluating educational digital media using established criteria | 50% of K-12 teachers will demonstrate competency by:<br><br>Using the internet for research.<br><br>Using word processing and online interactive lessons to enhance their students' understanding of the language arts standards.<br><br>Using spreadsheets and online interactive sites to enhance their students' understanding of the mathematics standards.<br><br>Evaluating educational digital media using established criteria | 75% of K-12 teachers will demonstrate competency by:<br><br>Using the internet for research.<br><br>Using word processing and online interactive lessons to enhance their students' understanding of the language arts standards.<br><br>Using spreadsheets and online interactive sites to enhance their students' understanding of the mathematics standards.<br><br>Evaluating educational digital media using established criteria |
| | **Person Responsible**<br>Principals & Technology Department | | |
| MONITORING & EVALUATION OF OBJECTIVE 1: Evaluations will be given after each session and reviewed by the technology leaders as well as used to monitor and adjust the curriculum of the sessions. **Technology Department & Site Administrators.** | | | |

| **OBJECTIVE 2: Teachers will increase their use of technology for productivity and enhancement of instruction, as measured by CTAP2 Assessment, self evaluation and principal observation.** | | | |
|---|---|---|---|
| **Strategy** | **Benchmarks** | | |
| | **Year 1** | **Year 2** | **Year 3** |
| | **K-12** | **K-12** | **K-12** |
| Workshops will be offered to teachers through the district, Community Adult Education, and the Santa Clara County Office of Education the LINC program & online instructional courseware subscriptions. | 20% of K-12 teachers will demonstrate competency in the following areas:<br><br>General knowledge of & appropriate use of hardware &software (e.g., Web browsers, connections, word processing, desktop publishing, data bases, spread sheets, presentation software,)<br><br>Information literacy and the use of the Big 6, including research tools and ethics & policies<br><br>Locating & adapting lessons based upon best practices & research findings<br><br>Teacher productivity tools for classroom management (e.g. home-school communication, student records and grades, & computer applications to manipulate and analyze data)<br><br>Technology to assess student learning and provide feedback to students and parents<br><br>Integration of student learning & classroom management<br><br>Internet access and use<br><br>Instructional resources via the internet for research<br><br>Use of technology to assess student learning and provide feedback to students and parents<br><br>Use of grade book spreadsheet or database program to record and report student progress<br><br>The use of *Datawise*. | 50% of K-12 teachers will demonstrate competency in the following areas:<br><br>General knowledge of & appropriate use of hardware &software (e.g., Web browsers, connections, word processing, desktop publishing, data bases, spread sheets, presentation software,)<br><br>Information literacy and the use of the Big 6, including research tools and ethics & policies<br><br>Locating & adapting lessons based upon best practices & research findings<br><br>Teacher productivity tools for classroom management (e.g. home-school communication, student records and grades, & computer applications to manipulate and analyze data)<br><br>Technology to assess student learning and provide feedback to students and parents<br><br>Integration of student learning & classroom management<br><br>Internet access and use<br><br>Instructional resources via the internet for research<br><br>Use of technology to assess student learning and provide feedback to students and parents<br><br>Use of grade book spreadsheet or database program to record and report student progress<br><br>The use of *Datawise*. | 75% of K-12 teachers will demonstrate competency in the following areas:<br><br>General knowledge of & appropriate use of hardware &software (e.g., Web browsers, connections, word processing, desktop publishing, data bases, spread sheets, presentation software,)<br><br>Information literacy and the use of the Big 6, including research tools and ethics & policies<br><br>Locating & adapting lessons based upon best practices & research findings<br><br>Teacher productivity tools for classroom management (e.g. home-school communication, student records and grades, & computer applications to manipulate and analyze data)<br><br>Technology to assess student learning and provide feedback to students and parents<br><br>Integration of student learning & classroom management<br><br>Internet access and use<br><br>Instructional resources via the internet for research<br><br>Use of technology to assess student learning and provide feedback to students and parents<br><br>Use of grade book spreadsheet or database program to record and report student progress<br><br>The use of *Datawise.* |
| | **Person Responsible**<br>Principals & Technology Department | | |
| MONITORING & EVALUATION OF OBJECTIVE 1: Evaluations will be given after each session and reviewed by the technology leaders as well as used to monitor and adjust the curriculum of the sessions. **Technology Department & Site Administrators.** | | | |

| **OBJECTIVE 3: Teachers will develop the information literacy skills to be able to teach students to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information in order to become life long learners, as measured by CTAP2 Assessment, self evaluation and principal observation.** | | | |
|---|---|---|---|
| **Strategy** | **Benchmarks** | | |
| | **Year 1** | **Year 2** | **Year 3** |
| | **K-12** | **K-12** | **K-12** |
| Workshops will be offered to teachers through the district, Community Adult Education, and the Santa Clara County Office of Education the LINC program & online instructional courseware subscriptions to develop information literacy skills and to be able to integrate the instruction into the instructional program. | 20% of K-12 teachers will demonstrate competency in the following areas:<br><br>Access information efficiently & effectively<br><br>Evaluate information critically & competently<br><br>Use information accurately & creatively<br><br>Independently pursue information<br><br>Practice ethical behavior in regard to information & information technology<br><br>Select appropriate technology that supports content standards in language arts & math.<br><br>Design, adapt, & use lessons that develop student information literacy and problem-solving skills as tools for lifelong learning.<br><br>Implement lessons that engage students in evaluating information, problem solving, & critical thinking to make language arts & math meaningful.<br><br>Analyze the needs of students and organize appropriate technological resources for curricular applications.<br><br>Facilitate activities that engage students to become self-directed learners through effective use of technology aligned with language arts & math curriculum standards.<br><br>Apply best practices & research findings on the use of technology in managing resources for specific student populations. | 50% of K-12 teachers will demonstrate competency in the following areas:<br><br>Access information efficiently & effectively<br><br>Evaluate information critically & competently<br><br>Use information accurately & creatively<br><br>Independently pursue information<br><br>Practice ethical behavior in regard to information & information technology<br><br>Select appropriate technology that supports content standards in language arts & math.<br><br>Design, adapt, & use lessons that develop student information literacy and problem-solving skills as tools for lifelong learning.<br><br>Implement lessons that engage students in evaluating information, problem solving, & critical thinking to make language arts & math meaningful.<br><br>Analyze the needs of students and organize appropriate technological resources for curricular applications.<br><br>Facilitate activities that engage students to become self-directed learners through effective use of technology aligned with language arts & math curriculum standards.<br><br>Apply best practices & research findings on the use of technology in managing resources for specific student populations. | 75% of K-12 teachers will demonstrate competency in the following areas:<br><br>Access information efficiently & effectively<br><br>Evaluate information critically & competently<br><br>Use information accurately & creatively<br><br>Independently pursue information<br><br>Practice ethical behavior in regard to information & information technology<br><br>Select appropriate technology that supports content standards in language arts & math.<br><br>Design, adapt, & use lessons that develop student information literacy and problem-solving skills as tools for lifelong learning.<br><br>Implement lessons that engage students in evaluating information, problem solving, & critical thinking to make language arts & math meaningful.<br><br>Analyze the needs of students and organize appropriate technological resources for curricular applications.<br><br>Facilitate activities that engage students to become self-directed learners through effective use of technology aligned with language arts & math curriculum standards.<br><br>Apply best practices & research findings on the use of technology in managing resources for specific student populations. |
| | **Person Responsible**<br>Site Administrators, Technology Leaders, Teachers, Counselors | | |
| MONNITORING & EVALUATION OF OBJECTIVE 3: Evaluations will be given after each session and reviewed by the technology leaders as well as used to monitor and adjust the curriculum of the sessions. **Technology Department & Site Administrators.** | | | |

| **OBJECTIVE 4: Teachers will increase their knowledge of and use of best practices in technology integration to increase student achievement on language arts and mathematics standards, CTAP2 Assessment, self evaluation and principal observation.** | | | |
|---|---|---|---|
| **Strategy** | **Benchmarks** | | |
| | **Year 1** | **Year 2** | **Year 3** |
| | **K-12** | **K-12** | **K-12** |
| Workshops will be offered to teachers through the district, Community Adult Education, and the Santa Clara County Office of Education the LINC program & online instructional courseware subscriptions. | 20% of K-12 teachers will demonstrate competency in the following areas:<br><br>Locate learning, teaching, and communication resources related to implementation in the classroom.<br><br>Evaluate educational digital media using established criteria<br><br>Use a variety of technology resources in lesson plans suited to student learning styles.<br><br>Effectively use technology for whole-class, small group, and individual instruction<br><br>Design classroom activities that allow all students to build upon their technology skills & increase learning.<br><br>Implement established policies for safe, private, and secure practices & copyright & plagiarism in the classroom.<br><br>Locate & adapt lessons based upon best practices & research findings<br><br>Include appropriate technological resources in classroom lesson plans.<br><br>Use a variety of technology resources in lesson plans suited to student learning styles.<br><br>Collect, organize, and analyze data using technology for the purpose of managing resources, learning environments, instructional planning & project design.<br><br>Analyze best practices and research findings on the use of technology & design lessons accordingly.<br><br>Collect, interpret, and report student performance data using technology.<br><br>Analyze the effects of technology integration on student learning and modify lessons to better meet curricular goals. | 50% of K-12 teachers will demonstrate competency in the following areas:<br><br>Locate learning, teaching, and communication resources related to implementation in the classroom.<br><br>Evaluate educational digital media using established criteria<br><br>Use a variety of technology resources in lesson plans suited to student learning styles.<br><br>Effectively use technology for whole-class, small group, and individual instruction<br><br>Design classroom activities that allow all students to build upon their technology skills & increase learning.<br><br>Implement established policies for safe, private, and secure practices & copyright & plagiarism in the classroom.<br><br>Locate & adapt lessons based upon best practices & research findings<br><br>Include appropriate technological resources in classroom lesson plans.<br><br>Use a variety of technology resources in lesson plans suited to student learning styles.<br><br>Collect, organize, and analyze data using technology for the purpose of managing resources, learning environments, instructional planning & project design.<br><br>Analyze best practices and research findings on the use of technology & design lessons accordingly.<br><br>Collect, interpret, and report student performance data using technology.<br><br>Analyze the effects of technology integration on student learning and modify lessons to better meet curricular goals. | 75% of K-12 teachers will demonstrate competency in the following areas:<br><br>Locate learning, teaching, and communication resources related to implementation in the classroom.<br><br>Evaluate educational digital media using established criteria<br><br>Use a variety of technology resources in lesson plans suited to student learning styles.<br><br>Effectively use technology for whole-class, small group, and individual instruction<br><br>Design classroom activities that allow all students to build upon their technology skills & increase learning.<br><br>Implement established policies for safe, private, and secure practices & copyright & plagiarism in the classroom.<br><br>Locate & adapt lessons based upon best practices & research findings<br><br>Include appropriate technological resources in classroom lesson plans.<br><br>Use a variety of technology resources in lesson plans suited to student learning styles.<br><br>Collect, organize, and analyze data using technology for the purpose of managing resources, learning environments, instructional planning & project design.<br><br>Analyze best practices and research findings on the use of technology & design lessons accordingly.<br><br>Collect, interpret, and report student performance data using technology.<br><br>Analyze the effects of technology integration on student learning and modify lessons to better meet curricular goals. |
| | **Person Responsible**<br>Principals & Technology Department | | |
| MONITORING & EVALUATION OF OBJECTIVE 2: Evaluations will be given after each session and reviewed by the technology leaders as well as used to monitor and adjust the curriculum of the courses. **Technology Department & Site Administrators.** | | | |

# 3

# INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT & SOFTWARE

## WAN Infrastructure

### Physical Description of WAN:

The Morgan Hill WAN consists of three basic areas. The first area is the Public LAN consisting of a connection to the Santa Clara County Office of Education and a small public network. The second area is the DMZ consisting of a monitored area for servers to reside outside of the main district WAN. The third area is the private district wide area network.

The Morgan Hill Public network begins with DS3 to Pacific Bell Internet Services to the Santa Clara County Office of Education for Internet connectivity. This small network is an area for the district to provide public services that are available for general public and district access. Currently this connection is located at one of our elementary schools and connected to the District Office via fiber utilizing two sets of media converters for failover protection. The district plans to upgrade this connection utilizing long-haul GBIC's to improve speed and reliability.

The third zone is the district's private wide area network. This area provides a filter point for district wide resources and monitoring equipment. Equipment such as web caching and filtering, spam blocking, district e-mail, internal web servers, library services and such are located on this network.

The districts has 13 sites that are connected via single mode fiber to a Cisco 4908 switch providing gigabit Ethernet between the district and these sites. The remaining sites are connected to the district office via T1 lines into the Cisco 7206 router.

### Infrastructure Redundancy:

Uninterruptible power supplies are installed in network closets to provide electrical isolation and protection of equipment. After school renovations, a dedicated electrical circuit will be provided for each wiring closet. The district maintains a set of replacement layer 2 and 3 switches.

### Network Security:

The integrity and security of the district's network is of utmost importance. The staff is working to increase WAN & LAN security. The following practices have been implemented: VLAN's (Virtual Local Area Network), a software firewall on the main Cisco gateway router, Norton Antivirus on all desktops. In addition, BP/AR 6163.4, *Student Use of Technology*, delineates the districts Acceptable Use Policy for both students and staff.

# District Server Standards

## Windows 2003 Services:

The district has provided Windows 2003 root servers located at the district office for all schools to connect their Windows 2003 servers into an Active Directory that is district wide. This allows all of the schools to share in the district resources and profiles. The district Technology staff and consultants provide direct and indirect support of these servers and installation of site servers.

School sites have a Windows 2003 server that provides local authentication, DHCP, DNS, and other network services to the site.

## Unix Services:

The district utilizes Sun servers to provide primary DNS, and web services to the district.

## Network Backup:

The district provides backup of administrative and critical servers. This includes the SIS, DNS, web and mail servers.

# LAN Infrastructure

## District Office LAN:

The district office provides a network consisting of 10/100Tx to the desktop via 3Com switches. This network provides the district with access to local servers and resources.

## School Site LANs:

Elementary School LAN:

The typical elementary school starts with either a Cisco or 3COM switch connected to the district office via fiber or a Cisco router at the school connected to the district office via T1.

The district is responsible for this network and support of the administrative staff.

The base infrastructure of these networks is being improved as the district renovates all of the school sites. Renovation can provide the site with fiber optic backbone-utilizing layer 3, gigabit switches. The final desktop is supported via layer 2/ layer 3 compatible switches providing 10/100Tx to the desktop.

Secondary LAN:

The secondary schools utilizing fiber optic connections to the district office are provided with a layer of 3, gigabit Ethernet between the MDF and the IDF's . Layer 2/layer 3 compatible switches provide 10/100Tx connectivity to the desktop.

# Phone System

The school district will be installing a 3Com VCX VOIP phone system at all locations. This implementation will provide a phone and voice mail to classrooms and other areas. The VCX phone system will also provide a consistent telephony platform across the district and

converge voice, text and video communications into a single IP based telecommunications infrastructure. The central PBX at the district office is connected via T1 or fiber to each school site. Five PRIs at district various district locations will provide inbound and outbound call service. A number of analog lines will be maintained at each location for failover if the PRIs should fail. The analog lines will also be used for 911 service.

Voice mail is centrally located at the district office for all sties. All extensions for staff are provided with a voice mailbox.

All PBX and Telco equipment is connected to a VIP Tone for reporting and maintenance. This helps in troubleshoot and diagnosis of problems.

## Network Support

The MHUSD Department of Technology & Information Systems is responsible for the purchasing and support of all district technology as well as the district's attendance accounting functions and the enrollment of all elementary students in the district. The district currently contracts with an outside vendor for technical support. A new high-speed connection to the Internet via the Santa Clara County Office of Education supports schools in their use of technology to support student learning. Individual school wide LANS connect to the District WAN via T1, and fiber. District standards are in place for the hardware purchases in the district with the Director of Technology & Information Systems approving all requisitions.

## Business Systems

A countywide accounting/attendance/payroll system *Quintessential School Systems (QSS)* is presently in use by the Business Office. The system is located at the Santa Clara County Office of Education (SCCOE). Professional development for the MHUSD Business Office staff and others is available on an on-going basis**.**

## Student Information System

SASIx*p* is used for student attendance accounting, housing student demographic data, creating student transcripts and storing student assessment data. *Pinnacle*, which links to SASIxp, is used at Sobrato High School for online attendance accounting. *Datawise* prepares the student records from SASIxp and readies them for use by Education Testing Services (ETS) for Pre-identification purposes for the STAR program. MHUSD is currently in the process of rolling out the new *Datawise* product, which will house and manipulate all student assessment data as well be used by the Educational Services Department to work with teachers to create local criterion reference tests in core subject areas. Alchemy is used for record retention and *TADDS* is used at the high school and in Educational Services to issue work permits for students.

## Hardware/Software

The Department of Educational Technology & Information Systems has set standards for all hardware purchases in the district. The district has standardized on Dell computers with a 3-

year service agreement purchased for each machine. Schools work directly with the Department of Educational Technology & Information Systems to order needed equipment. When all equipment is received at the district warehouse it is inventoried and annotated in the district's database of assets. Technicians employed by the contracted service support company accomplish the installation of hardware. Requirements for new hardware connected to the MHUSD network are as follows:

| | Servers | Desktops | Laptops | VOIP | Routers/Switches |
|---|---|---|---|---|---|
| Vendor | Dell or Apple | Dell or Apple | Dell or Apple | 3 Com | 3Com or Cisco |
| OS | Windows 2003 Server | Windows XP or OS 10 | Windows XP or OS 10 | | |
| Software | Norton Antivirus | Norton Antivirus | Norton Antivirus | | |

Some schools in the district still have some Windows 98 machines in place which are no longer supported by Microsoft and cannot be updated due to their age. The goal for all classrooms is an 4:1 computer to student ratio or lower and all computers loaded with a minimum of Windows XP. School sites purchase equipment each year. Funding sources include general and categorical funds and also using other funding sources available such as the Home & School Club, community/business partners, and educational foundation donations. Additional equipment as well as replacement equipment is included in the purchases; however, inventory systems are lacking, as is a replacement plan for out-dated technology.

MHUSD has an existing policy that the schools/departments and the Department of Educational Technology work together to determine the cost effectiveness of maintaining older equipment. When equipment is deemed too old or not worth repairing it is marked "obsolete", the inventory control tag is removed and sent to business services. The Supervisor of Grounds & Custodians then arranges for obsolete hardware to be disposed of twice a year utilizing services from Kaiser Technology Equipment.

Each site is responsible for purchasing its own software. Windows operating systems and Microsoft Office are de facto standards in the district. Mac OS is standard on the Macintosh computers. Each site is currently responsible for auditing and tracking their software licenses. District acceptable use policies, addressing the issue of software licensing, are in place.

There are a wide range of electronic learning resources that exist and are used by teachers, students and administrators to support learning activities. Educational software titles in use in the district include the following: Microsoft Office, Accelerated Reader/Math, Reader Rabbit, etc.

## District's Replacement Policy For Obsolete Equipment

The MHUSD technical staff evaluates the backbone equipment and servers that house mission critical information on an ongoing basis. The Director of Technology reviews all purchases made in the past year as well as share upcoming needs at individual sites. The district's backbone is replaced approximately every 5 years. Desktop machines at all locations are replaced every 4-5 years.

## Support

The technology hardware, software, learning resources, networking, 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 this plan continue to change on a regular basis as dictated by user needs and technological innovations. In a school setting it is difficult to keep pace with the ever-changing world of technology that students will be faced with when they enter the work world. This puts a huge burden on a budget that's already stretched to the limit. This plan was written with realistic financial limitations in mind. At this time, the basic hardware, telecommunications infrastructure and physical plant modifications are in place to execute this technology plan. Certain sites lack the most up-to-date, hardware and software. Wireless access is lacking at most district sites thus limiting the amount of "anytime, anywhere" learning. Video distribution systems and video surveillance systems exist at Sobrato and Live Oak High Schools. The district also needs to focus on the Total Cost of Ownership when planning for technology in the future.

### Site Support:

The district currently contracts with an outside vendor for technical support throughout the district. Sites also employ additional resources to provide support.

- Staff development provides teachers, clerical staff, and administrators with basic trouble shooting skills.
- Many sites have parent and volunteer groups who help with desktop support.
- Several sites use adept tech savvy students to provide some classroom tech support.

Funding for site support comes from the Technology Department Budget, individual school budgets and grants. Most schools utilize categorical funds as well as monies raised by local Home & School Clubs to support the technology on the school site. Budgetary constraints have limited the amount of technical support available to schools so that hardware and software are always available for the ongoing use by employees and students.

### Monitoring

A written 3 year plan of district wide technology replacement/expansion priorities; attendance reports from SASIxp; data reports from Datawise; wireless network design and implementation schedule for Sobrato and Live Oak High Schools; video distribution design & implementation plans for both Live Oak & Sobrato High Schools will all be used as monitoring tools. The State Technology Survey from each school site as well as district purchasing/service documentation will also be used. Information gained from site visits and informal communications with personnel at each district location will also used for evaluation purposes.

## Infrastructure, Hardware, Technical Support & Software Goals

**Provide students and staff with the infrastructure, hardware, technical support and software needed to maximize productivity and learning.**

| OBJECTIVE 1: Continue to upgrade Business Information Systems and Student Management Systems to better meet the needs of the district. | | | |
|---|---|---|---|
| **Strategy/Responsibility** | **Year 1** | **Year 2** | **Year 3** |
| Provide appropriate and equal access to technology for teachers and students to help them meet curriculum standards and technology benchmarks. **Technology Department & Site Administrators** | 100% of the high schools' staff will evaluate and determine their school's ability to provide all student groups with appropriate and equal access to technology. Results and remedies will be annotated in their individual school tech plans. | 100% of the middle schools' staff will evaluate and determine their school's ability to provide all student groups with appropriate and equal access to technology. Results and remedies will be annotated in their individual school tech plans. | 100% of the elementary schools' staff will evaluate and determine their school's ability to provide all student groups with appropriate and equal access to technology. Results and remedies will be annotated in their individual school tech plans. |
| Upgrade all individual K-12 teacher & student workstations to accommodate use of electronic resources. | 40% of the circulation systems and teacher & student workstations | 80% of the circulation systems and teacher & student workstations | 100% of the circulation systems and teacher & student workstations |
| Continue to upgrade existing network infrastructure at all sites to provide reliable and scaleable communication links within the district and to the outside world. **Technology Department & Site Administrators** | The district will research and fund wireless technology for Sobrato High School as a pilot project. | Live Oak and Sobrato High Schools will have a video distribution system in operation. | These systems will be expanded to other sites, as funding becomes available. |
| The district will utilize the concept of Total Cost of Ownership (TCO) model when planning for future technology purchases. **Technology Department** | The Director of Educational Technology will share the TCO model with Superintendent's Cabinet & Leadership during the 2007-08 school year. | The Director of Educational Technology will work with schools and departments to implement and utilize the TCO model. | Continue to implement and utilize the TCO model at all sites and departments within the district |
| MONITORING & EVALUATION OF OBJECTIVE 1: Written 3 year plan of district wide technology replacement/expansion priorities; agendas and schedules for TCO staff development sessions; attendance reports from SASIxp; data reports from Datawise; wireless network design and implementation schedule for Sobrato and Live Oak High Schools; video distribution and surveillance design & implementation plans for both Live Oak & Sobrato High Schools will all be used as monitoring tools. The State Technology Survey from each school site as well as district purchasing/service documentation. Information gained from site visits and informal communications with personnel at each district location will also used for evaluation purposes. | | | |

| OBJECTIVE 2: Expand the current technology support system to provide continuous and reliable support to all sites. | | | |
|---|---|---|---|
| **Strategy/Responsibility** | **Year 1** | **Year 2** | **Year 3** |
| Obtain competitive bids for technical support to lower costs and thus better support all users and enhance student, teacher and administrative learning **Technology Department** | The Business Department and Department of Educational Technology will work to design specs for a technical support bid package to be awarded. | Develop a system for to monitor and evaluate that technical support is being provided to the schools efficiently as is possible and within the budgetary constraints. | Develop a system to keep all users informed of the status of their support requests. |
| Virus scan software will be installed and monitored on all desktops and servers. **Technology Department & Site Administrators.** | Technicians routinely monitor remotely for virus protection on 100% of district workstations and make sure that virus definitions are up to date. | Ongoing | Ongoing |
| The district will identify funding sources for the purchase of additional technology. **Technology Department** | The Director of Educational Technology will work with Superintendent's Cabinet to prioritize district wide replacement/expansion needs in the area of technology. | The Director of Educational Technology will work with 100% of schools and departments to identify other funding sources for technological needs. | Ongoing |
| An inventory system will be in place for computers in the district by site. **Technology Department** | Review/revise the lists of acceptable equipment. | Work with site administrators to assess the value of existing systems and their worth as it relates to repair or replacement. | Work with the business office/warehouse to create an inventory system to track computer purchases/dates/warranties. |
| MONITORING & EVALUATION OF OBJECTIVE 2: Technology Bid Package and resulting award of bid; number of incidences of hardware being infected with viruses; reports from the inventory tracking system, as well as a survey of "customer satisfaction" regarding technical support from departments and sties will also serve as evaluation and monitoring tools. This evaluation will be ongoing with a formal evaluation completed and submitted to the Superintendent for review on an annual basis. **Technology Department & Site Administrators.** | | | |

# 4

# FUNDING AND BUDGET

Morgan Hill Unified School District along with many other districts has been hampered by the high costs associated with implementing technology as well as with sustaining and upgrading hardware and software. Detailed below are the costs of maintaining and implementing this technology plan.

Established funding sources for the support of technology in the district includes the general fund, Title II, Title I, SIP, Title V, Home & School Club, ASB and school bond funding as well as various grants in the district. Additional funding may be available via EETT (Enhancing Education Through Technology) formula and competitive grants. The district applies for and receives a small amount of ERATE money that rolls back into the general fund to cover general district expenses.

District staff will continue to pursue both state and federal grants that will best support the needs and goals of this plan. This is an ongoing effort to fund the integration of technology to support teaching and learning. The budgets on the following pages assume a **consistent state and district budget picture.**

**2007-08 MHUSD Technology Budget**

| Expenditure | General Fund | Title V | EETT (Formula) | SBCP | Total |
|---|---|---|---|---|---|
| **1000-1999** | | | | | |
| Certificated Salaries<br>1Director's Salary | $120,000* | | | | $120,000 |
| Certificated Hourly<br>Hourly payment to teachers for participating in TAFT Staff Development | | | $1,920 | | $1,920 |
| **2000-2999** | | | | | |
| Classified Salaries<br>1 Clerical position<br>2 Data Network Technician | $134,000* | | | | $134,000 |
| **3000-3999** | | | | | |
| Employee Benefits | $23,000* | | | | $23,000 |
| **4000-4999** | | | | | |
| Books & Supplies<br>Software, office Supplies, etc. | $16,000 | $7,941 | | | $23,941 |
| **5000-5999** | | | | | |
| Services & Other Operating Expenditures<br>Technical support for all critical district functions | $280,000 | | | | $280,000 |
| **6000-6999** | | | | | |
| Capital Outlay<br>New & replacement equipment (Sun mail servers, SASI servers, task servers, wireless connections, switches, fiber connections, etc.) | $19,000 | | $5,718 | $140,000 | $164,718 |
| **Total** | $592,765 | $7,941 | $7,638 | $140,000 | $748,344 |
| *Staff also work on other districtwide programs | | | | | |

**2008-2009 MHUSD Technology Budget**

| Expenditure | General Fund | Title V | EETT (Formula) | RDA | SBCP | Total |
|---|---|---|---|---|---|---|
| **1000-1999** | | | | | | |
| Certificated Salaries<br>1 Director's Salary | $124,000* | | | | | $124,000 |
| Certificated Hourly<br>Hourly payment to teachers for participating in TAFT Staff Development | | | $2,000 | | | $2,000 |
| **2000-2999** | | | | | | |
| Classified Salaries<br>1 Clerical position<br>2 Data Network Technician | $140,000* | | | | | $140,000 |
| **3000-3999** | | | | | | |
| Employee Benefits | $26,000* | | | | | $26,000 |
| **4000-4999** | | | | | | |
| Books & Supplies<br>Software, office Supplies, etc. | $16,000 | $8,000 | | | | $24,000 |
| **5000-5999** | | | | | | |
| Services & Other Operating Expenditures<br>Technical support for all critical district functions | $290,000 | | $6,000 | | | $296,000 |
| **6000-6999** | | | | | | |
| Capital Outlay<br>New & replacement equipment (Sun mail servers, SASI servers, task servers, wireless connections, switches, fiber connections, etc.) | $20,000 | | | $300,000 | $140,000 | $460,000 |
| **Total** | $616,000 | $8,000 | $8,000 | $300,000 | $140,000 | $1,072,000 |
| *Staff also work on other districtwide programs | | | | | | |

**2009-2010 MHUSD Technology Budget**

| Expenditure | General Fund | Title V | EETT (Formula) | SBCP | Total |
|---|---|---|---|---|---|
| **1000-1999** | | | | | |
| Certificated Salaries<br>1 Director's Salary | $126,000* | | | | $126,000 |
| Certificated Hourly<br>Hourly payment to teachers for participating in TAFT Staff Development | | | $3,000 | | $3,000 |
| **2000-2999** | | | | | |
| Classified Salaries<br>1 Clerical position<br>2 Data Network Technician | $145,000* | | | | $145,000 |
| **3000-3999** | | | | | |
| Employee Benefits | $30,000* | | | | $30,000 |
| **4000-4999** | | | | | |
| Books & Supplies<br>Software, office Supplies, etc. | $20,000 | $4,000 | | | $24,000 |
| **5000-5999** | | | | | |
| Services & Other Operating Expenditures<br>Technical support for all critical district functions | $290,000 | | $3,000 | | $293,000 |
| **6000-6999** | | | | | |
| Capital Outlay<br>New & replacement equipment (Sun mail servers, SASI servers, task servers, wireless connections, switches, fiber connections, etc.) | $20,000 | $4,000 | $2,000 | $140,000 | $166,000 |
| **Total** | $631,000 | $8,000 | $8,000 | $140,000 | $787,000 |
| *Staff also work on other districtwide programs | | | | | |

MONITORING AND EVALUATION OF FUNDING AND BUDGET: Morgan Hill Unified School District utilizes a Performance Based Budgeting process. Each spring, all department heads and school site principals are required to present their budgets as related to performance targets. The group, comprised of administrators, teachers and union representatives then rank each budget presentation and thus develop a recommendation regarding how much money will be allocated for the following year. This recommendation then goes to the school board for their deliberation and approval. The technology plan will be revised as appropriate to meet budget allocations.

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# MONITORING AND EVALUATION

Morgan Hill Unified School District will monitor the Technology Plan so that modifications can be made accordingly. The monitoring and evaluation of the timeline, implementation and goals of the plan itself will be reviewed on a yearly basis. Each spring a committee will come together to assess the plan based on results from data collection (See table for specifics.)

Forms of data collection will include the California Department of Education's California School Technology Survey. Surveys will also determine the effect of technology on teacher and administrator productivity.

Morgan Hill Unified School District will also monitor and evaluate the impact of technology on students' achievement and the attainment of the district's curricular goals by collecting a variety of data. By 2008, the district will implement an annual plan to use the CTAP2 survey to annually evaluate technology proficiency and implementations levels of student in grades 7-12. Results of students' performance on the Standardized Testing and Reporting Program (STAR), the state's Academic Performance Index (API), the California High School Exit, and the Adequate Yearly Progress (AYP) as mandated by No Child Left Behind (NLCB) will all serve as data collection points. Each school will review their student performance data on an annual basis and make instructional program changes as necessary.

Monitoring and evaluating the timeline and implementation of the plan will be the responsibility of all stakeholders. This group includes representation from district personnel, parents, community members and business partners. The tasks will be divided as described in the table below. In January of each year, a review committee will be formed. The Assistant Superintendent of Educational Services will chair the review committee. Other members may include, but not be limited to, an elementary, middle & high school teacher, a librarian, an administrator, and a parent. In February, the person(s) responsible for each task (column 2 below) will complete their task (column 3) with respect to their component (column 1). In March the review team will review the recommendations received and make necessary revisions to the plan.

Information obtained through the monitoring and evaluation process will be used at all levels of the organization from the boardroom to the classroom. It will guide the Board, Superintendent and Superintendent's Cabinet as they work with site administrators and teachers to make program changes. In addition, it will drive instruction in each classroom for students, thus allowing them to achieve proficiency on state content standards.

| Component | Responsibility | Tasks | Timeline |
|---|---|---|---|
| Curriculum | Assistant Superintendent Educational Services | Review curriculum portion of plan to ensure alignment with district standards, goals, and objectives . Student achievement of content standards will be monitored and assessed with, district benchmarks for content standards on the K-6 standards-based report cards, the California Standards Tests, the California Standards 4th & 7th grade Writing Test, the CELDT, and the High School Exit Exam. A review of the core curriculum guides and will be conducted on an annual basis. | January (2008, 2009, 2010) – Review Committee Formed<br><br>March (2008, 2009, 2010) – Review Committee Receives report from Educational Services and makes recommendations for revisions to the plan. |
| Professional Development | Assistant Superintendent Educational Services Technology Readers | Review data from informal surveys, and course and/or workshop evaluations of the professional development program long with instructor and administrator evaluations will be used as part of the monitoring process to determine an if there is an increase in teacher knowledge and use of best practices. Recommendations for program enhancement will be submitted to the review team. | January (2008, 2009, 2010) – Review Committee Formed<br><br>March (2008, 2009, 2010) – Review Committee Receives report from Educational Services and makes recommendations for revisions to the plan. |
| Infrastructure, Hardware, Technical Support & Software | Technology Department | Review of data from attendance reports from SASIxp; data reports from Datawise; wireless network design and implementation schedule for Sobrato & Live Oak High Schools; video distribution design & implementation plan for both Live Oak & Sobrato High Schools will all be used as monitoring tools. The State Technology Survey from each school site as well as district purchasing/service documentation. Information gained from site visits and informal communications with personnel at each district location will also used for evaluation purposes. Recommendations will be to the review team. | January (2008, 2009, 2010) – Review Committee Formed<br><br>March (2008, 2009, 2010) – Review Committee Receives report from Technology Department and makes recommendations for revisions to the plan. |
| Funding & Budget | Assistant Superintendent, Educational Services Technology Department Staff | Review the technology plan and the past year's including expenditures and projections for the next year and submit recommendations to review team prior the budgeting process. The technology plan will be revised as appropriate to meet budget allocations. | January (2008, 2009, 2010) – Review Committee Formed<br><br>March (2008, 2009, 2010) – Review Committee Receives report from Technology Department and makes recommendations for revisions to the plan. |
| Monitoring and Evaluation | All stakeholders | In March the review team will review the recommendations received and make necessary revisions to the plan. | |

# Supporting Research

Below is an annotated bibliography of research that supports education technology strategies and proven methods for student learning, teaching and technology management. Included within the annotations are references to specific goals, objectives and strategies in this technology plan. The references will be in ***italics***.

**Annotated Bibliography**:

Becker, H.J. (2000, September). Pedagogical motivations for student computer use that lead to student engagement [On-line], (first published in Education Technology, 2000, September – October). Center for research on information technology and organizations, University of California, Irvine. Retrieved April 3, 2004 from the World Wide Web: http://www.crito.uci.edu/TLC/FINDINGS/spec_rpt_pedegogical/content.html

You can't teach them until you have hooked them! Everyone agrees that students' attention, effort and engagement in learning are key variables in increasing students' subject-matter understandings and competencies. Here in lies the widespread appeal of designing computer-based activities for students. Accumulated teacher experience shows that students are more "on task" and express a more positive outlook on learning when using computers. But, not all computer activities motivate students to the same degree of excitement. Nor, are all computer activities good teaching. This report looks at empirical associations between the kinds of software that students use, teachers' pedagogical motivations behind their use, and a measure of students engagement. ***Under Curriculum Objective 2 on page 27, a critical strategy listed is to review and recommend educational software, etc." for teachers and students***

Bozeman, W. C., & Baumbach, D.J. (1995). Educational technology: Best practices from America's schools, New York: Eye on Education, Inc. pp. 174-176.

Technology has been found to increase learning opportunities when students can use the Internet as a tool for discovering information related to an assignment. This research found that Internet use permits student access to professional assistance, federal and state databases, and to information provided by other student collaborators working on a single project. ***Under Curriculum Objective 3 page 29, the annual Student Showcase and rubric are based on this research.***

CEO Forum on Education & Technology (June 2001). Technology can raise student achievement [Online] Retrieved October 22, 2003 from the World Wide Web: http://www.electronic-school.com/2001/09/0901ewire.html#forum

This CEO Forum study found that the use of technology in classrooms increased the ability to promote achievement for special needs students, including learning disabled, low achieving, special education, and gifted students. In addition, the report concludes, improving access to information increases knowledge, inquiry, and depth of investigation. No longer confined to textbooks students can use technology to delve more deeply into a subject and immediately find additional materials. This increases expertise and research skills, translating into improved student achievement. ***This research guided our writing of the technology plan focusing on high achievement for all students.***

Critical issue: Using technology to improve student achievement. (1999). Retrieved November 1, 2002, from North Central Regional Educational Laboratory Web site: http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te800.htm

Moreover, using technology within the curriculum framework can enhance important skills that will be valued in the workplace, such as locating and accessing information, organizing and displaying data, and creating persuasive arguments. ***Under Curriculum Objective 3 page 29, the annual Student Showcase and rubric are based on this research.***

Eisenberg, Mike, The Big6 Information Literacy for the Information Age, Big 6 Associates, LLC, ( 2001, 2002, 2003). Retrieved from hhtp://www.big6.com/showarticle/php?id=16

Outline of the Big Six Skills approach to library and information skills instruction. ***This research helped us outline the literacy skills that both teachers and students needed to attain as outlined in Objective 3 of Curriculum on page 29 and in Objective 3 in Professional Development on page 37.***

Johnson, Doug & Eisenberg, Mike (2002) Learning and teaching information technology—computer skills in context. ERIC Digest. Retrieved November 19, 2004 from http://www.big6.com/showarticle/php?id=82

A meaningful, unified information technology literacy curriculum must be more than a "laundry list" of isolated skills, such as knowing the parts of the computer, writing drafts and final products with a word processor, and searching for information using the World Wide Web. The curriculum outlined demonstrates how technology literacy skills can fit within an information literacy skills context. ***This research helped us outline the literacy skills that both teachers and students needed to attain as outlined in Objective 3 of Curriculum on page 29 and in Objective 3 in Professional Development on page 37.***

Johnson, Michael B. & Johnson, Doug, (2002). Learning and Teaching Information Technology—Computer Skills in Context. ERIC Digest.

A meaningful unified information technology literacy curriculum must be more than a 'laundry list' of isolated skills, such as knowing the parts of the computer, writing drafts and final products with a word processor, and searching for information using the World Wide Web . . . Students need to be able to use computers and other technologies flexibly, creatively and purposefully. All learners should be able to recognize what they need to accomplish, determine whether a computer will help them to do so, and then be able to use the computer as part of the process of accomplishing their task. Individual computer skills take on a new meaning when they are integrated within this type of information problem-solving process, and students develop true 'information technology literacy' because they have genuinely applied various information technology skills as part of the learning process. ***Information technology literacy for students and teachers is outlined in Curriculum Objective 3 page 29 and Staff Development Objective 3 page 37.***

Schacter, J. (1999). Retrieved November 1, 2002 from the Milken Family Foundation Web site: http://www.mff.org/pubs/ME161.pdf

To assist educators and policymakers in putting education first, the Milken Exchange serves as a clearinghouse of research and information on learning technology. By paying attention to the learner, the learning environment, professional competency, system capacity, community connections, technology capacity, and accountability, technology will be kept in service to learning. (p. 10) …the greatest gains in student achievement occurred when teachers were trained in the use of technology. The impact of education technology on student achievement: ***What the most current research has to say. This piece of research helped us to develop the entire technology plan.***

# Morgan Hill Unified School District
# School Sites

| School | Principal | Address | Phone Number |
|---|---|---|---|
| Burnett Elementary | Barbara Neal | 65 Tilton Ave., Morgan Hill | (408) 779-5241 |
| | | | |
| El Toro Elementary | Patrick Buchser | 455 E. Main Ave., Morgan Hill | (408) 779-5250 |
| | | | |
| Jackson Elementary | Karen Tavares | 2700 Fountain Oaks, Morgan Hill | (408) 779-8301 |
| | | | |
| Los Paseos Elementary | Rhoda Wolfskehl | 121 Avenida Grande, San Jose | (408) 779-5209 |
| | | | |
| Nordstrom Elementary | Kathy Yeager | 1425 E. Dunne Ave, Morgan Hill | (408) 779-5278 |
| | | | |
| Paradise/Machado Elem. | Kathy Kelley | 1400 LaCrosse Dr., Morgan Hill | (408) 779-8391 |
| | | | |
| San Martin/Gwinn Elem. | PJ Foehr | 100 North Street, San Martin | (408) 779-5220 |
| | | | |
| Walsh Elementary | Esther Carlson | 353 W. Main St., Morgan Hill | (408) 779-5211 |
| | | | |
| Britton Middle School | Carol Coursey | 80 W. Central Ave, Morgan Hill | (408) 779-5200 |
| | | | |
| Murphy Middle School | Barbara Nakasone | 141 Avenida Espana, San Jose | (408) 779-8351 |
| | | | |
| Central High School | Irene Macias-Morriss | 17960 N. Monterey, Morgan Hill | (408) 779-5244 |
| | | | |
| Live Oak High School | Nicholas Boden | 1505 E. Main Ave., Morgan Hill | (408) 201-6100 |
| | | | |
| Sobrato High School | Rich Knapp | 401 Burnett Avenue, Morgan Hill | (408) 201-6200 |

# Morgan Hill Unified School District
# Grade Level Technology Performance Domains, Standards, and Benchmarks

Students acquire technology skills through teacher modeling, demonstrating and practical application. The Student Technology Outcomes, delineated were gleaned from the National Educational Technology Standards (NETS) Project, funded by the National Aeronautics and Space Administration (NASA) in collaboration with the U.S. Department of Education, ISTE (International Society for Technology in Education) and the National Science Foundation. The NETS Project was designed to develop technology performance standards for PreK - 12 students, establish specific applications of technology through the curriculum, provide standards for support of technology in schools, and address student assessment and evaluation of technology use to improve learning within the context of the state-adopted content standards and skills.

A major component of the standards project was the creation of general profiles of technology literate students at key developmental points in their pre-college education. These profiles provide rather broad descriptors of technology competencies that students should have developed by the time that they exit the target grades.

These profiles reflect the underlying assumptions that all students should have the opportunity to develop technology skills that support learning, personal productivity, ethical and responsible behaviors, as well as decision-making skills. They prepare students to be lifelong learners and make informed decisions about the role of technology in their lives.

These profiles are indicators of achievement at certain points in K-12 education. Technology skills are to be developed by coordinated activities that support learning throughout a child's education. They must be introduced, reinforced and finally mastered and integrated into an individual's personal learning and social framework. The profiles reflect the following basic principles and assumptions:

1. Students acquire steadily increasing skills and knowledge related to the use *of* technology for enhancing personal and collaborative abilities.
2. Students acquire steadily increasing ability to make quality decisions related to managing their own learning.
3. Students acquire steadily increasing skills to work in collaboration with others, with hardware and software and information resources, and to solve problems with the support technology tools.
4. Students become responsible citizens and users *of* technology and information.
5. Students have access to current technology resources including telecommunications and multimedia enhancements.
6. Students acquire skills that prepare them to learn new software and hardware technology and to adapt to the complex technology environments that emerge in their lifetime.

Technology skills can be divided into five broad domains. The profiles and associated performance indicators can be viewed within the framework of these domains. When reviewing the NETS elementary skill set, district committee members felt a need to state the objectives as discreet skills instead of broad statements while student outcomes for grades 7-12 reflect the general literacies stated in the NETS project.

## EDUCATIONAL TECHNOLOGY PERFORMANCE DOMAINS

**Domain 1. Basic Operations and Concepts.** There is a basic framework of concepts and skills essential for effectively using technology tools and resources. *These concepts* and operational skills provide a foundation for use of technology to support learning *throughout the* curriculum. Students have a sound understanding of the operation of technology systems, terminology, basic concepts, limitations and uses of technology, connectivity and compatibility concepts, and an awareness of adaptive/assertive technologies. Students develop attitudes toward technology use, *which support* life-long teaming, collaboration, personal pursuits, and productivity.

**Domain 2. Social, Ethical, and Human Issues.** The rate of change surrounding technology is staggering. Students understand the historical and societal impact that technology has had, is having, and is likely to have. They understand worker issues related to automation and retraining. Students evaluate new (information resources and technological innovations based on their appropriateness to specific tasks and the individual's personal preferences, requirements and resources; they are sophisticated technology consumers. Students understand privacy, copyright, licensing, and intellectual property rights issues, and they make responsible decisions and *exhibit ethical* behavior related to them.

**Domain 3. Productivity Tools**. There is a set of universally used tools that support *both individual* and group work. These tools underlie more complex, specific, and emerging technologies. Students are well versed in the use of these tools to support their productivity in a wide variety of endeavors. Topics in this domain include word processing, database, spreadsheet, utility programs, telecommunications, multimedia (graphics, animation, digital video, sound, authoring, presentation), content-specific software and tools, emerging technologies, groupware, and collaborative process tools.

**Domain 4. Technology Tools for Communications.** The teacher and the textbook are no longer the sole sources of information in the classroom. Students obtain information from a variety of sources and media. Students use their knowledge of information tools to deal with the exponentially increasing and rapidly changing sources of information available to them. Topics in this domain include traditional and emerging research skills, remote information resources, electronic communication, distance learning and teleconferencing, networking, and research skills.

**Domain 5. Technology Tools for Research, Problem-Solving, and Decision-Making.** The environment that graduates will face when leaving the school system is increasingly complex. Therefore, the strategies for success must be more sophisticated. As students progress *through school,* they continuously improve their abilities to combine and match technology tools and resources to meet the learning challenges they encounter. Students apply effective strategies to assess the credibility of information sources and to resolve conflicting information. Topics in this domain include locating technology tools and information about them, using specialized personal productivity tools, self-monitoring of effectiveness, developing collaborative skills, resolving information conflict, critically consuming information, and using intelligent agents and sophisticated search techniques to support research, problem-solving, and decision-making.

## ELEMENTARY SCHOOL STUDENTS

- When students complete grades K-6, they will have had experiences with the following:

  ◊ Familiarity with the computer key functions and operations
  ◊ Use of a draw program
  ◊ Local and global awareness through the use of email and the Internet
  ◊ Writing and communicating utilizing technology
  ◊ Incorporating the use of available technology into the completion of reports and presentations
  ◊ Keyboarding skills utilizing proper techniques
  ◊ Curricular projects that incorporate the use of applications such as draw programs, & word processing

- Students will use the available technologies in a courteous and ethical manner; adhere to copyright laws, restrictions and regulations placed on the use of telecommunications.

Discreet Technology Skills/Concepts

**Kindergarten**

**General care of computer**

- Introduce:
    - No magnets
    - Clean hands
    - No food or drink

**Vocabulary awareness**

- Introduce:
    - Keyboard
    - Space bar
    - Monitor
    - Computer
    - Mouse

**Skills**

- Introduce:
    - Use of mouse (move and click at desired location)

**Ethics**

- Introduce:
    - Safe and careful use of computer equipment

Discreet Technology Skills/Concepts

**First Grade**

**General care of computer**

- Review:
    - No magnets
    - Clean hands
    - No food or drink

**Vocabulary awareness**

- Introduce:
    - CD-ROM
    - Printer/print
    - VCR
    - Quit/exit
    - Return key
    - Arrow keys
    - Menu
    - Point/click
    - Word processing

**Skills**

- Introduce:
    - Beginning basic word processing (words, short sentences as appropriate)
    - Mouse navigation
    - Keyboard exploration
    - Open
    - Save
    - Print
    - Quit

**Ethics**

- Review:
    - Safe and careful use of computer equipment

Discreet Technology Skills/Concepts

**Second Grade**

**General care of computer**

- Review:
    - No magnets
    - Clean hands
    - No food or drink

**Vocabulary awareness**

- Introduce:
    - Floppy disk
    - Diskette

**Skills**

- Introduce:
    - Insertion of floppy disks
    - Saving to a disk
    - Proper keyboarding positions
    - Use of a menu bar
    - Accessing saved files
    - Word processing skills (edit, copy, cut, paste)
    - Spell Check
    - Adding pictures to text

**Ethics**

- Review:
    - Safe and careful use of computer equipment
- Introduce:
    - Concepts of ownership & honesty
    - Respect for individual's privacy

Discreet Technology Skills/Concepts

**Third Grade**

**General care of computer**

- Review:
  - No magnets
  - Clean hands
  - No food or drink

**Vocabulary awareness**

- Introduce:
  - CPU
  - Scanner
  - Formatting
  - Graphics

**Skills**

- Introduce:
  - Creation of a picture using draw tools
  - Formatting a picture
  - Copy/saving graphics
  - All mouse functions
  - Extended keyboarding (shift, tab, caps lock)
  - Formatting sentences
  - Formatting font (type, style, size)

**Ethics**

- Introduce:
  - Copyright issues
  - Online behavior & safety

Discreet Technology Skills/Concepts

**Fourth Grade**

**General care of computer**

- Review:
  - No magnets
  - Clean hands
  - No food or drink
- Introduce:
  - Correct procedure for turning a computer on and off

**Vocabulary awareness**

- Introduce:
  - Video camera

**Skills**

- Introduce:
  - Handling and insertion of a CD-ROM
  - Extended keyboarding (Num lock, control, alt)
  - Keyboarding at 10 wpm
  - Navigating between programs
  - Formatting a paragraph
  - Creating and formatting a friendly letter
  - Accessing the Internet

**Ethics**

- Review:
  - Online safety and behavior
- Introduce:
  - Inappropriate Internet content
  - Plagiarism

Discreet Technology Skills/Concepts

**Fifth Grade**

**General care of computer**

- Review:
    - No magnets
    - Clean hands
    - No food or drink
    - Correct procedure for turning a computer on and off

**Vocabulary awareness**

- Introduce:
    - Digital camera
    - RAM
    - Hard disk space
    - Multimedia

**Skills**

- Introduce:
    - Extended keyboarding (numeric)
    - Keyboarding at 15 – 20 wpm
    - File management
    - Printer selection
    - Print monitor
    - Formatting a page
    - Use of bullets
    - Create/format a business letter
    - Use of multimedia to gather information/present report
    - Use of email
    - Use of Internet search engine

**Ethics**

- Review:
    - Online safety and behavior
    - Inappropriate Internet content
    - Plagiarism

Discreet Technology Skills/Concepts

**Sixth Grade**

**General care of computer**

- Review:
  - No magnets
  - Clean hands
  - No food or drink
  - Correct procedure for turning a computer on and off

**Vocabulary awareness**

- Introduce:
  - Spreadsheet
  - Virus

**Skills**

- Introduce:
  - Full keyboard function
  - Keyboarding at 30 wpm
  - Formatting a document
  - Creating a newsletter
  - Alters/customizes graphics
  - Uses 2 programs to produce final project
  - Creates tables/spreadsheets
  - Operates a video camcorder
  - Uses a scanner
  - Uses a digital camera
  - Installs programs and applications
  - Beginning PC/MAC repair
  - Performs advanced Internet search

**Ethics**

- Review:
  - Online safety and behavior
  - Inappropriate Internet content
  - Plagiarism
- Introduce
  - Sharing of files and virus protection

## MIDDLE SCHOOL STUDENTS

Technology at the middle school level will support learning that is relevant to the students' present and future vocational goals, academic preparation and personal pursuits. Upon promotion from the middle school, all students will be prepared to use a variety of technologies in all curricular areas.

- Students will use a variety of current technologies as tools to enhance all areas of the curriculum.
- Students will demonstrate proficiency in the following areas:

    ◊ Keyboarding skills
    ◊ Use of word processing software in creating reports & projects
    ◊ Use of desktop publishing to enhance projects and create other media
    ◊ Use of multimedia for presentations
    ◊ Use of a draw program
    ◊ Use of a spreadsheet
    ◊ Use of a database
    ◊ Information retrieval

- Students will be able to perform simple trouble-shooting techniques to solve operating problems.
- Students will use technologies in an ethical manner; adhere to copyright laws, restrictions and regulations placed on the use of telecommunications.
- Students will demonstrate an ability to access and use the information, gathered using different media resources.
- Students will demonstrate the ability to make wise decisions relative to the purchase of technology.

**Domain 1: Basic Operations and Concepts**

***The middle school student:***

- Solves basic technical problems encountered during regular use of computers and software.
- Demonstrates file management skills associated with file format, platform, file copy, file transfer, and file downloads.
- Identifies the functions and purposes of a computer operating system.
- Interprets basic system error messages or commands.
- Identifies and uses drivers/extensions needed to interface with peripheral devices.
- Operates a calculator and other content-specific devices.
- Describes and implements basic troubleshooting techniques for multimedia computer systems with related peripheral devices.
- Identifies and uses terms related to data communications (modem, upload, download, bulletin board, email, etc.)
- Makes memory management adjustments as needed to operate software.

**Domain 2: Social, Ethical, and Human Issues**

*The middle school student:*

- Identifies the ways technology has changed the lives of people in communities
- Identifies the ways in which technology has influenced and changed the lives of people in the United States.
- Describes the right of an individual to ownership of his/her created computer work.
- Analyzes and discusses the future impact and trends of technology in the home, work, society, entertainment, school.
- Understands and models ethics relating to copyright laws.
- Identifies uses of technology in the community
- Identifies ways that telecommuting promotes a global community
- Identifies examples and analyzes the societal impact of advanced and emerging technologies.
- Explains that the copyright law protects what a person or company has created and placed on a diskette
- Identifies examples of copyright law violations and possible penalties.
- Discriminates between types of data as to which are public and private.
- Demonstrates knowledge of safe and ethical procedures related to sharing personal information.
- Participates in ethical situations, experiences (e.g., role playing, elimination of jobs, intellectual property, case studies)

**Domain 3: Productivity Tools**

*The middle school student:*

- Uses a word processor, graphic utility, and a simple desktop publisher to prepare and present information in a variety of formats.
- Uses a word-processing program to publish a report that contains centering, tabs, and more than one paragraph.
- Routinely uses specialized word processing utilities (e.g., thesaurus, spell checker, grammar checker, document statistics) in the production of written materials.
- Creates word-processed document explaining the process of their research and a discussion of their results.
- Selects and uses productivity software to facilitate collaborative projects.
- Selects and uses productivity software to effectively present individual and team projects.
- Gathers data, designs/creates a database, and then generates varying types of reports to graphically display information contained in the database.
- Uses Boolean logic and keyword searching to access a wide range of information sources.

**Domain 4: Technology Tools for Communication**

*The middle school student:*

- Uses telecommunications and collaborative tools to investigate curriculum-related concepts, issues, and information.
- Uses telecommunications and collaborative tools to build or enhance a knowledge base related to a curricular topic.
- Collaborates electronically with students in other countries.
- Uses hyperlink multimedia tools to design and publish or present group products.
- Accesses a variety of online information resources.
- Uses net resources to document work, conduct online research and link to other sources.
- Compares the process of sending and receiving messages: electronically vs. non-electronically (e.g., email vs. US mail, electronic bulletin board vs. classroom bulleting board)
- Performs file compression, transfer, and expansion for sharing and accessing information.
- Participates in development of a World Wide Web page based on class research project.

**Domain 5: Technology Tools for Research, Problem-Solving, and Decision-Making**

*The middle school student:*

- Selects and applies appropriate content-specific tools and resources to support learning.
- Uses the Web independently as a research and publication tool.

- Selects productivity tools appropriate for creating an interactive presentation to communicate ideas and research.
- Participates in sophisticated, collaborative problem solving using a variety of computer and telecommunications media.
- Uses hypermedia tool to develop a product that is nonlinear in operation to communicate ideas and research.
- Selects an appropriate tool to create a visual display derived from information/research gathered via email or the Internet.
- Collaborates electronically with students in the global community in problem-solving activities.
- Uses telecommunications to collaborate at distances to build or enhance knowledge based related to topics of personal interest.
- Identifies and independently uses computer hardware and software to design and develop products.
- Selects appropriate computing resources and conducts research, for example using CD encyclopedias and other online resources.
- Given a specific problem, selects and uses appropriate technology tools to organize and report findings in multiple forms.
- Participates in critical analysis of information gathered from multiple resources and then presents findings in a coherent and organized fashion.
- Explores the credibility of information obtained through online resources.
- Explores the credibility of information obtained through a variety of technology resources.
- Storyboards, edits, and creates a video using multiple resources.

## HIGH SCHOOL STUDENTS

Technology will support life-long learning that is relevant to the students' current and future vocational, and academic preparation. When students complete the secondary school curriculum, they will be able to:

- Understand the interrelationship of information as it relates to the use of the Internet

  ◊ Possess a broad base of knowledge in the area of technology
  ◊ Formulate and refine relevant questions
  ◊ Utilize research and retrieval skills
  ◊ Analyze, synthesize and evaluate information

- Produce interdisciplinary portfolios of accomplishments using a variety of technologies.
- Produce multi media projects that include sound, picture, and text that work together to meaningfully communicate their knowledge and understanding of their learnings around a specific topic.

- Value and use technology in an ethical matter:

  ◊ Demonstrate knowledge of copyright laws and other legal issues
  ◊ Demonstrate etiquette and courtesy in telecommunications

- Appreciate and respect the use of technology in the world of work

**Domain 1: Basic Operations and Concepts**

*The high school student:*
- Identifies sources of information on hardware and software purchases.
- Determines optimum configuration for a computer system to support their long-term needs.
- Compares the services and resources of online providers
- Evaluates system security and virus protection resources and software.
- Assesses needs to identify and price essential software resources for their personal computer systems.
- Identifies and prices essential peripherals for personal computer systems.
- Designs personal web page.

**Domain 2: Social, Ethical, and Human Issues**

*The high school student:*
- Interprets computer advertising to make good consumer decisions.
- Acknowledges sources of information and has an awareness of legal/ethical issues.

**Domain 3: Productivity Tools**

*The high school student:*
- Given a prepared database, uses sorting and searching techniques to solve problems.
- Uses technology tools and resources for managing finances.
- Uses a prepared spreadsheet to enter and edit data, to explain the results of the changes, and to test "What if" statements
- Integrates word processing, spreadsheet, and database applications to prepare and present information in a variety of formats.

**Domain 4: Technology Tools for Communication**

*The high school student:*
- Routinely uses online services to acquire information.
- Routinely uses online services for publishing.
- Routinely uses telecommunications for group and individual communications.
- Identifies online resources to support lifelong learning.
- Uses distance and distributed education to support learning.

**Domain 5: Technology Tools For Research, Problem-Solving, and Decision-Making**

*The high school student:*
- Identifies and assess a variety of technology-based resources to support lifelong learning and career interests.
- Investigates uses of expert systems as aids to personal productivity and decision-making.
- Interprets computer advertising to make good consumer decisions.
- Routinely uses technology tools, software, and online resources to gather, evaluate, analyze, organize, and convey information pertinent to academic and personal interests.

## Appendix C – Criteria for EETT-Funded Education Technology Plans

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

- **For corresponding EETT Requirements, see Appendix F.**
- **If the technology plan is revised, insert the Education Technology Plan Benchmark Review Form (Appendix I) at the beginning of the technology plan.**
- **Include this form (Appendix C) with "Page in District Plan" completed at the end of your technology plan.**

| **1. PLAN DURATION CRITERION** | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
|---|---|---|---|
| a. The plan should guide the district's use of education technology for the next three to five years. | 7 | The education technology plan describes the districts use of education technology for the next three to five years. | The plan is less than three years or more than five years in length. |
| **2. STAKEHOLDERS CRITERION** Corresponding EETT Requirement(s): 7 & 11 (Appendix F) | **Page in District Plan** | **Example of Adequately Addressed** | **Not Adequately Addressed** |
| a. Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process. | 6 | The planning team consisted of representatives who will implement the plan. If a variety of stakeholders did not assist with the development of the plan, a description of why they were not involved is included. | Little evidence is included that shows that the district actively sought participation from a variety of stakeholders. |

| **3. CURRICULUM COMPONENT CRITERIA** Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, & 12 (Appendix F) | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
|---|---|---|---|
| a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours. | **13-16** | The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers. | The plan explains technology access in terms of a student-to-computer ratio, but does not explain where access is available, who has access, and when various students and teachers can use the technology. |
| b. Description of the district's current use of hardware and software to support teaching and learning. | **13-16** | The plan describes the typical frequency and type of use (technology skills/information literacy/integrated into the curriculum). | The plan cites district policy regarding use of technology, but provides no information about its actual use. |
| c. Summary of the district's curricular goals and academic content standards in various district and site comprehensive planning documents. | **9, 11 & 23 - 25** | The plan references other district documents that guide the curriculum and/or establish goals and standards. | The plan does not reference district curriculum goals. |
| d. List of clear goals and a specific implementation plan for using technology to improve teaching and learning by supporting the district curricular goals and academic content standards. | **27-28** | The plan delineates clear, specific, and realistic goals and target groups for using technology to support the district's curriculum goals and academic content standards to improve learning. The implementation plan clearly supports accomplishing the goals. | The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals. |

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| e. List of clear goals and a specific implementation plan detailing how and when students will acquire technology and information literacy skills needed to succeed in the classroom and the workplace. | **29** | For the focus areas, the plan delineates clear, specific and realistic goals for using technology to help students acquire technology and information literacy skills. The implementation plan clearly supports accomplishing the goals. | The plan suggests how technology will be used, but is not specific enough to determine what action needs to be taken to accomplish the goals. |
| f. List of clear goals and a specific implementation plan for programs and methods of utilizing technology that ensures appropriate access to all students. | **30** | For the focus areas, the plan delineates clear, specific and realistic goals for using technology to support the progress of all students. The implementation plan clearly supports accomplishing the goals. | The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals. |
| g. List of clear goals and a specific implementation plan to utilize technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs. | **22** | The plan delineates clear, specific and realistic goals for using technology to support the district's student record-keeping and assessment efforts. The implementation plan clearly supports accomplishing the goals. | The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals. |
| h. List of clear goals and a specific implementation plan to utilize technology to make teachers and administrators more accessible to parents. | **19-22** | The plan delineates clear, specific and realistic goals for using technology to facilitate improved two-way communication between home and school. The implementation plan clearly supports accomplishing the goals. | The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals. |

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| i. List of benchmarks and a timeline for implementing planned strategies and activities. | **22, 27 - 29** | The benchmarks and timeline are specific and realistic. Teachers, administrators and students implementing the plan can easily discern what steps will be taken, by whom, and when. | The benchmarks and timeline are either absent or so vague that it would be difficult to determine what should occur at any particular time. |
| 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. | **22, 27 - 29** | The monitoring process is described in sufficient detail so that who is responsible, and what is expected is clear. | The monitoring process is either absent, or lacks detail regarding who is responsible and what is expected. |
| | | | |
| **4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA** Corresponding EETT Requirement(s): 5 & 12 (Appendix F) | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
| a. Summary of the teachers' and administrators' current technology skills and needs for professional development. | **32-34** | The plan provides a clear summary of the teachers' and administrators' current technology skills and needs for professional development. The findings are summarized in the plan by discrete skills to facilitate providing professional development that meets the identified needs and plan goals. | Description of current level of staff expertise is too general or relates only to a limited segment of the district's teachers and administrators in the focus areas or does not relate to the focus areas, i.e., only the fourth grade teachers when grades four to eight are the focus grade levels. |

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| b. List of clear goals and a specific implementation plan for providing professional development opportunities based on the needs assessment and the Curriculum Component goals, benchmarks, and timeline. | **32-34** | The plan delineates clear, specific and realistic goals for providing teachers and administrators with sustained, ongoing professional development necessary to implement the Curriculum Component of the plan. The implementation plan clearly supports accomplishing the goals. | The plan speaks only generally of professional development and is not specific enough to ensure that teachers and administrators will have the necessary training to implement the Curriculum Component. |
| c. List of benchmarks and a timeline for implementing planned strategies and activities. | **35-38** | The benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what steps will be taken, by whom, and when. | The benchmarks and timeline are either absent or so vague that it would be difficult to determine what steps will be taken, by whom, and when. |
| d. Description of the process that will be used to monitor whether the professional development goals are being met and whether the planned professional development activities are being implemented in accordance with the benchmarks and timeline. | **34** | The monitoring process is described in sufficient detail so that who is responsible and what is expected is clear. | The monitoring process is either absent, or lacks detail regarding who is responsible and what is expected. |

| 5. **INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA** Corresponding EETT Requirement(s): 6 & 12 (Appendix F) | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
|---|---|---|---|
| a. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development Components of the plan. | **39-42** | The plan clearly summarizes the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support proposed to support the implementation of the district's Curriculum and Professional Development Components. The plan also includes the list of items to be acquired, which may be included as an appendix. | The plan includes a description or list of hardware, infrastructure and other technology necessary to implement the plan, but there doesn't seem to be any real relationship between the activities in the Curriculum and Professional Development Components and the listed equipment. Future technical support needs have not been addressed or do not relate to the needs of the Curriculum and Professional Development Components. |

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| b. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that could be used to support the Curriculum and Professional Development Components of the plan. | **39-42** | The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components. The current level of technical support is clearly explained. | The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail. |
| c. List of clear benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components. | **44-45** | The benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when. | The benchmarks and timeline are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when. |
| d. Description of the process that will be used to monitor whether the goals and benchmarks are being reached within the specified time frame. | **43** | The monitoring process is described in sufficient detail so that who is responsible and what is expected is clear. | The monitoring process is either absent, or lacks detail regarding who is responsible and what is expected. |

| **6. FUNDING AND BUDGET COMPONENT CRITERIA** Corresponding EETT Requirement(s): 7 & 13, (Appendix F) | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
|---|---|---|---|
| a. List of established and potential funding sources and cost savings, present and future. | **46** | The plan clearly describes resources* that are available or could be obtained to implement the plan. The process for identifying future funding sources is described. | Resources to implement the plan are not identified or are so general as to be useless. |
| **b.** Estimate implementation costs for the term of the plan (three to five years). | **47-49** | Cost estimates are reasonable and address the total cost of ownership. | Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed. |
| **c.** Description of the level of ongoing technical support the district will provide. | **43** | The plan describes the level of technical support that will be provided for implementation given current resources and describes goals for additional technical support should new resources become available. The level of technical support is based on some logical unit of measure. | The description of the ongoing level of technical support is either vague or not included, is so inadequate that successful implementation of the plan is unlikely, or is so unrealistic as to raise questions of the viability of sustaining that level of support. |
| **d.** Description of the district's replacement policy for obsolete equipment. | **42** | Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components. | Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented. |
| **e.** Description of the feedback loop used to monitor progress and update funding and budget decisions. | **50** | The monitoring process is described in sufficient detail so that who is responsible, and what is expected is clear. | The monitoring process is either absent, or lacks detail regarding who is responsible and what is expected. |

| **7. MONITORING AND EVALUATION COMPONENT CRITERIA** Corresponding EETT Requirement(s): 11 (Appendix F) | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
|---|---|---|---|
| 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. | **25-26, 51-52** | The plan describes the process for evaluation utilizing the goals and benchmarks of each component as the indicators of success. | No provision for an evaluation is included in the plan. How success is determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing. |
| b. Schedule for evaluating the effect of plan implementation. | **25-26, 51-52** | Evaluation timeline is specific and realistic. | The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan. |
| c. Description of how the information obtained through the monitoring and evaluation will be used. | **25-26, 51-52** | The plan describes a process to report the monitoring and evaluation results to persons responsible for implementing and modifying the plan, as well as to the plan stakeholders. | The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings. |

| **8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION**<br>Corresponding EETT Requirement(s): 11 (Appendix F) | **Page in District Plan** | **Example of Adequately Addressed** | **Example of Not Adequately Addressed** |
|---|---|---|---|
| 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. | **23** | The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers. | There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the use of technology. |
| | | | |
| **9. EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA**<br>Corresponding EETT Requirement(s): 4 & 9 (Appendix F) | **Page in District Plan** | **Example of Adequately Addressed** | **Not Adequately Addressed** |
| 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. | **11-13, 31, 52-54** | The plan describes the relevant research behind the plan's design for strategies and/or methods selected. | The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing. |

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|---|---|---|---|
| b. Description of thorough and thoughtful examination of externally or locally developed education technology models and strategies. | **11-13, 31, 52-54** | The plan describes references to research literature that supports why or how the model improves student achievement. | No research is cited. |
| c. Description of development and utilization of innovative strategies for using technology to deliver rigorous academic courses and curricula, including distance-learning technologies (particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources). | **16-18** | The plan describes the process for development and utilization of strategies to use technology to deliver specialized or rigorous academic courses and curricula, including distance learning. | There is no plan to utilize technology to extend or supplement the district's curriculum offerings |