Poway High School Technology Use Plan

2005-2008



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Table of Contents

TECHNOLOGY HISTORY	2
TECHNOLOGY PLAN MISSION STATEMENT	2
TECHNOLOGY PLAN VISION STATEMENT	3
OUTCOME ON STUDENT LEARNING	4
INFRASTRUCTURE	6
HARDWARE	6
TECHNOLOGY SUPPORT	7
SOFTWARE	8
PROPOSED TECHNOLOGY NEEDS	9
TECHNOLOGY INTEGRATION	10
EXAMPLES OF CURRENT TECHNOLOGY	11
STAFF TRAINING	11
TRAINING PLAN	12
TECHNOLOGY COORDINATOR	13
TECHNOLOGY COMMITTEE	14
STAFF AND ADMINISTRATIVE INVOLVEMENT	14
PARENT AND BUSINESS PARTNERS	15
ASSESSMENT PROCEDURE	15
CONCLUSIONS AND RECOMMENDATIONS	15

Technology History

Poway High School opened in 1961 and has a distinguished history and academic record. Located in north San Diego County, **Poway High School** is a comprehensive high school with a current enrollment of over 3,000 students in grades 9-12.

Only twelve years ago, **Poway High School** had relatively few computers on campus and no campus computer network. The number of computers has grown to over 700 and the entire campus has been networked for high-speed Internet access. Teachers are able to send and receive email and post grades on the Internet for parents. Portable LCD computer projection carts are available on campus. Students are able to demonstrate what they have learned through the construction of PowerPoint presentations and the use of the Internet for research.

Technology Plan Mission Statement

Facilitate the integration of effective, existing, and emerging technologies, throughout all aspects of our educational community, in order to enhance learning opportunities for all students, to promote life-long learning for all members of the Poway High School community, and to support the effective use of resources

Goals and Objectives

Technology will support curriculum by:

Providing increased opportunities for individuals to master basic and advanced technical, academic, and job-related skills

Improving the quality, flexibility and delivery of instruction

Motivating individuals to participate in their own academic growth

Enhancing the presentation of curriculum to the entire learning community

Providing innovative methods to utilize higher thinking and problem solving skills

Fostering innovative critical thinking through the acquisition of research and development skills

Providing for the acquisition of evolving computer/technology proficiencies

Goal 1-Student learning: Students will enrich their educational experience by using technology as a tool for effective communication, personal productivity, and lifelong learning. Students will acquire technology skills that meet Levels I-II as defined in the CTAP proficiency standards.

Goal 2-Powerful teaching: Utilize technology for teaching and learning through out the entire learning community, to build awareness and understanding of varied teaching methodologies, and to publish best practices and student and staff accomplishments. Teachers will acquire technology skills that meet Levels I-III of the CTAP proficiency standards.

Goal 3-School-to-Community connections: The learning community will utilize technology to increase the connection between school and community through the sending and receiving of information.

Goal 4-Technology Training for the Learning Community: Develop and implement opportunities for technology-training for the entire learning community to increase productivity, efficiency and communication.

Technology Plan Vision Statement

Poway High School recognizes that the use of technology plays an important role in improving the quality of instruction and is a tool for the entire learning community. Students graduating from Poway High School must possess the knowledge, skills, and attitudes necessary to succeed in an increasingly complex, global, information-based society.

Outcome on Student Learning

By graduation, students will have participated in a number of Internet-based learning activities and explorations of complex problems that stimulate curiosity and logical thinking, build recognition of relationships and connections between subject areas, require students to synthesize information, produce a variety of report formats, and excite an interest in life-long learning. As outlined in the PUSD Technology standards, students will be able to do the following before graduation:

- ✓ Choose and use hardware, software and peripherals
- ✓ Manage files and select storage media (hard drive, CD, ZIP, USB, etc.)
- ✓ Understand the applications and impact of technology on the work world and environment
- ✓ Manage information (bookmarks, address books)
- ✓ Use technology-based simulations (stock market, probeware)
- ✓ Apply productivity tools, and integrate applications (e.g., copying from Word to PowerPoint)
- ✓ Use technology as a tool to communicate appropriately with peers, experts, teachers,
 and the community
- ✓ Gather, organize and synthesize information from Internet and online subscriptions. Apply information literacy skills to evaluate information for legitimacy, authority, and bias, and synthesize research to write reports, solve problems, make informed decisions, and support arguments.
- ✓ Communicate and collaborate with distance partners (other classrooms, other schools, other countries, etc.) through email, discussion boards, etc.
- ✓ Become informed and contributing citizens and community problem-solvers through technology applications.

Projects will foster students' basic computer skills so that students can learn and apply intermediate skills for the following CTAP areas:

✓ Word Processing – creating documents that include borders, bullets, headers, footers and graphics

- ✓ Publishing creating documents with multiple text columns, layering of text and graphics, layers of objects, and other elements of basic page design
- ✓ Presenting creating and presenting multimedia presentations that include clip art, transitions. Students should also be able to print handouts, and sort and modify slides.
- ✓ Accessing data understanding applications of data bases, especially in science and social science.
- ✓ Computing and Graphing creating spreadsheets that contain formula cells; creating simple bar or pie charts.

To complete their Computer Literacy requirement, students will be able to do the following, through test or approved class:

Word Skills	Excel Skills
Page Margins Print Preview Printing Horizontal Text Alignment Insert Text Inserting an image Spell Check Page Orientation Move text Inserting a Border Saving a file Font Size and Color Line spacing Copy and Paste Inserting a table Inserting a row in a table Word Art Insert symbols Save As Headers and Footers Page Numbers Image Wrapping Tabs Cut and Paste Bullets and Numbering	Open a file Save a file Adjust column width Merge Cells Change format of numbers in cells Use a general formula Print Preview Format the chart Delete a Row Setting the Print Area Insert a new column Spell Check Clear Contents of cells Printing a range of cells Save As a new file Adjust Row Height Insert text Use the sum function to add cells Shade a cell Insert a chart Select a range of cells Select an entire Row Cut and Paste Cell Alignment Inserting new cells Deleting cells Average of a range of cells Header and Footer
Create a new presentation Insert a slide Set a slide Design Set animations Insert text	Set transitions Insert Images Delete a slide Align text on a slide Spell check
Move a slide within a show Print a slide show Slide views	View a show

Infrastructure

PHS has been wired to provide at least six network drops in every classroom. **Poway High School** currently has a Local Area Network (LAN) with a fiber optic backbone that enables all classrooms to connect with the Wide Area Network (WAN), and the Internet.

Internet connectivity is provided via a T1 line that connects the PUSD WAN. All learning areas of Poway High School are wired for network and Internet connectivity. **Poway High School** currently uses 2 network servers of offer shared resources. The installation of three ISDN lines donated by PacBell allows for video teleconferencing learning activities. All classrooms and work areas have been wired with CAT5 for data, telephone, and video and coaxial for TV. **Poway High School** recognizes that it needs to upgrade its infrastructure on a continual basis to meet existing and projected.

Hardware

Poway High School hardware supports student learning, teaching, enhancement of curriculum, and improvement of administrative duties. To ensure mastery of information literacy skills for all students, the following technology-based learning resources have been purchased and distributed throughout the learning environment for use with the Standard's Based Subject Curriculum.

Multimedia computers and subject appropriate software

Audio visual and computer check-out items for classroom use: Projecting devices, digital cameras, and other computer peripherals

Individual teacher stations are provided for curriculum development, classroom management, and communication between student, teacher, parent, and community

Specific equipment, by department, meeting the following needs-assessment criteria

1. What are the equipment specifications and all pertinent details?

- 2. What are the budgetary considerations?
- 3. How will the equipment be used to support or enhance the curriculum?
- 4. Does this equipment meet or exceed District Guidelines?
- 5. Have the specifications for the equipment been reviewed and meet minimum standards?

Inventory

Poway High School's inventory of technology assets is maintained and updated using Intuit's TrackIt Management System. Inventory is, also, supported by the Follet Library management system for the purpose of checking out equipment and software for temporary use.

Technology Support

PHS and Poway Unified School District are committed to sustaining technology resources. PUSD currently provides technical support and training through the Learning Support Services (LSS), Information Support Services (ISS), and Technology Support Services (TSS) departments. A qualified LAN Administrator from the TSS department is assigned to Poway High School for on-going support. Support by these departments is available beyond regular school hours, and remotely through the Wide Area Network (WAN). Additional support time is available from TSS utilizing a roving LAN administrator and LAN administrator teams.

LAN Administrator

The LAN Administrator, assigned to PHS by the Technology Support Services department, is responsible for performing a variety of technical resource services in the installation, troubleshooting, and maintenance of hardware and software and network.

Coordination of software and support is provided to assure the smooth running of local and

wide area network (LAN and WAN) operations. The LAN administrator trains users in the operation of LAN equipment, and facilitates the coordination of necessary staff development.

The LAN administrator is an active participant in other assigned activities such as assisting with inventory duties, composing newsletters and bulletins, initiating purchase requisitions, and being member of the Technology committee.

Software

Software will provide the vehicle necessary to further enhance students' learning, taking into consideration levels of performance, and students with special needs and learning styles. Software will be used to strengthen curriculum, prepare students for continuing education and employment, as well as, support administrative services. Software will be evaluated in an ongoing manner.

The staff and students utilize online resources to research information from newspapers, newswires, business journals and periodicals, as well as historical and scholarly documents. These resources support classroom instruction in virtually every subject area and are used by researchers to delve into contemporary issues and events, and provide academics with rare historical documentation.

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The **Poway High School** Library Media Center (LMC) is an integral part of the learning process. The LMC will use technology to expand students' access to information needed in the classroom and support literacy goals. The LMC ensures that appropriate learning

resources are available in all subject areas throughout the instructional day including software, digital media, and hardware needed to meet class requirements. The library media teacher collaborates with classroom teachers about current assignments and research projects. Support is given to students on selection of appropriate resource materials including OPAC (online public access catalog), online subscription databases, and other digital resources.

Poway High School's Servers software is supported and maintained by the district's Technical Support Services department (TSS) which currently uses Novell Zenworks as its primary file server software.

Proposed Technology Needs

Poway High School will need to purchase additional items to expand and maintain the existing network and support technology in the classrooms. District computer guidelines require new equipment be purchased with a 5 year warranty. Technology needs will include a 4 year equipment replacement program to maintain a standard for equipment to support current student, staff, and administrative software needs.

The Poway Unified School District has identified an on-going need to replace and upgrade technology equipment on a regular, rotating basis. The district's replacement plan for Poway High School and specialized curricular needs will be the driving force in future acquisitions.

Proposition U construction and renovation plans will generate requirements for infrastructure, wiring and hardware needs through the next 3 years.

Technology Integration

Campus Technology Use

Current School-Wide Use Status

Past & Current Technology Use School-Wide

- World Wide Web Internet posting of grades and curriculum
- **2. Word Processing -** resumes, essays, reports, business letters
- 3. Multi-media slide presentations
- **4. Desktop Publishing** newsletter, brochures, timelines, posters
 Poetry booklets, web pages, graphics manipulation
- 5. Internet research
- 6. WebQuests
- 7. Digital camera and scanner for importing images
- 8. FlexCam for projecting images
- 9. TV/VCR viewing films
- 10. Programmed Courseware for language development
- 11. Tape recorders language development
- 12. CD Textbooks
- LAUSDnet email communication with students in other countries
- **14. Introduction to computers** (all 9th graders) Identify parts of computer and peripherals and their functions, general computer operations, Keyboard, word processing, web pages, database, spreadsheet, e-mail, desktop publishing
- 15. Computer Graphics
- 16. Web page design
- 17. Computer programming
- 18. Pre-Engineering
- 19. Architectural Design (CAD)
- 20. 3-D Computer Graphics and Animation
- 21. Automotive Repair Technology
- 22. Computer Repair Technology
- 23. Television and Film Production incorporating computer technology into production.
- 24. Reference materials online
- 25. On-Line catalog

Projects Technology Use

- All classrooms Internet accessible multi-media computer work station(s)
- 2. CDs for read-along literature
- 3. Internet for Multi-media projects with graphics, text, sound and video
- 4. Electronic portfolios added to assessment.
- 5. Multimedia carts with LCS projection available.
- 6. Access to Computer Lab for practice with simulation software to enhance test-taking skills.
- 7. Computer applications: Spreadsheets used for problem solving, graphing programs for visualization. Word processing with math symbols and statistics software added for instruction and practice. Students program probabilities, use software to reinforce basic skills, and learn pre-calculus applications.
- 8. Graphing calculators
- Students will define research questions, locate, evaluate and synthesize information from a variety of sources, and generate reports to be published electronically.
- Use portable laptops to use during lab exercises and to record data on field trips.
- 11. Observations and reports using digital camera and video.

Examples of Current Technology

Campus

Throughout the campus Administrators, Classified and Certificated staff is using technology to enhance curriculum and job performance. Computer software that is being used:

SASIxp

Novell ZENworks

Antivirus and Antispyware i.e. Trend Micro, MS Antispyware

Library reference i.e. Gale Reference

LearningPoint

Grading Programs, i.e. Making the Grade

Windows NT, Windows 98, Windows 2000, Windows XP Pro

Intranet and Internet e-mail

Support Specific software, 3-D Studio Max, Autodesk products, Adobe Products,

Macromedia Products, MS Office Suite

Staff Training

The assistant principal in Charge of Technology will be responsible for managing staff development in conjunction with the Staff Development TOSA (teacher on special assignment). The Staff Development TOSA and District Technology Trainer will be responsible for designing and implementing learning activities for current and emerging technologies.

Training Plan

Teacher/Staff Classroom/Site Technology Courseware Tools

- SASIxp/ClassXP Attendance, grades, phone numbers, email, schedules, etc. emphasizing communication with the learning community.
- Making the Grade Grade book and possible attendance management emphasizing communication with the learning community.
- Learning Point emphasizing grades on line, assignments, class syllabus, and communication with the learning community.
- TIMS-Total Information Management
 System-emphasizing data collected for purpose of designing learning trends
- Outlook email emphasizing communication with the learning community.
- File management emphasizing Novell, My Computer, and Windows Explore
- 7. Subject specific courseware
- School library digital resources; e.g.Gale, Noodletools, OPAC

Teacher/Staff Classroom Technology Technology Tools

- 1. Voicemail
- 2. File management and information storage options (CD, USB, ZIP, etc.)
- 3. Web based activities in the classroom
- 4. Integrating technology into curricular assignments for students
- 5. Subject Specific Hardware
- 6. Word Processing and Desktop Publishing
- 7. Presentation software, graphs and charts
- Teaching students to solve problems using technology
- Developing classroom projects that incorporate distance partners and group work
- 10. Current electronic resources and how to teach students to evaluate and use them
- 11. Formatting Word documents in MLA style, including headers, pagination and Works Cited
- 12. Teaching electronic etiquette.

Technology Coordinator

Assistant Principal in Charge of Technology

Chairperson of the Technology Committee

Have business and technical expertise necessary for project management, data collection and assessment

Have a wide range of knowledge of computers and applications

Seek input and participation from the staff, parents, students, Technology

Committee District Technology support, and other community members to assure

that the school-wide technology needs of Poway High School are met

Be responsible for facilitating the technology committee meetings

Share the responsibility for data collection through surveys

Evaluate and recommend hardware and software to the technology committee

Present recommended purchases for upgrades and the on-going needs of technology to the Principal, Technology Committee

Facilitate the ordering of hardware and software

Facilitate the training of staff in the integration of technology into curriculum

Facilitate training of staff in use of new hardware and software

Assess and evaluate teacher involvement and use of hardware and software

Assess and evaluate student involvement, use and success of hardware and software.

Assist in the development, implementation, and refinement of the **Poway High School** Technology Plan.

Technology Committee

The Technology Committee will meet as needed and is primarily responsible for troubleshooting technology related issues, the planning and modification of technology, planning staff development and updates to the school technology plan. The assistant principal in charge of technology is responsible for facilitating these technology committee meetings.

Technology Committee Members:

Scott Fisher Principal

Ed Giles Assistant Principal, In Charge of Technology

Lynn Olps Computer Technology Instructor

Ken Faverty Applied Academics and Technology Department Chair

Todd Parr Computer Graphic Arts Instructor

Roger Dohm Industrial Technology Instructor

Miriam Wiese Librarian

Vicki Wahlsten LAN Administrator

Staff and Administrative Involvement

- 1. Evaluate, update, and revise the Technology Plan.
- 2. Seek and utilize community resources.
- 3. Assist the staff in becoming proficient in the use of existing technology.
- 4. Provide ongoing support and training to use the existing technology.
- 5. Seek advice from technical support teams, on-site, District, Business, Higher Education, and Parents.

Parent and Business Partners

Through newsletters and school site web pages, parents will be invited to become involved with the various aspects of technology integration, as in participation on the Site Council Committee.

Our community offers sustained support in the area of parent volunteers, PTSA, the Endowment Foundation and SITE Council.

Assessment Procedure

Poway High School will assess current technology and the use of technology by the staff and students on a continual basis. An annual survey of teacher software knowledge and use is given to the certificated staff at the end of each school year. This survey will be tallied and training topics will be centered on the software applications that need to be enhanced by further training.

Staff Development projects are available on-line or on the PHS network server in a "Shared" Folder for access by other staff members.

Conclusions and Recommendations

Poway High School will continue to support its growth in the use of technology on the campus by:

Continuing to upgrade and enhance its hardware, software and network capabilities

Offering and assisting teachers in the use and integration of technology into the

classroom curriculum

Providing students opportunities to enhance their educational career through the use of application software in the completion of assignments as mandated in the business environment.

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