Maury Middle School 2005-2008 Technology Plan

Mission Statement

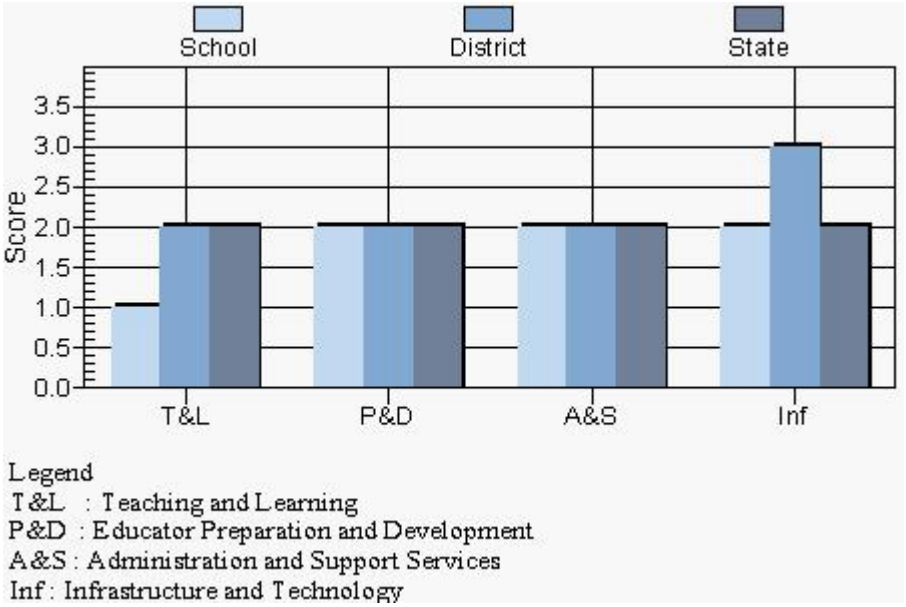
Maury Middle School challenges students to excel in academic achievement, in social development, and in extracurricular opportunities.

I. Process Elements

1. Needs Assessment

The 2004-2005 STaR Chart for Maury Middle School is as follows:

Maury Middle School STaR Chart Key Areas Report



STaR Chart Averages Summary Report

Teaching and Learning

	A	B	C	D	E	F	Key
Maury Middle School Totals	Early	Developing	Early	Developing	Early	Early	Early
Jefferson County Totals	Early	Developing	Early	Developing	Early	Early	Developing
State Totals	Developing	Developing	Developing	Advanced	Developing	Developing	Developing

A: Impact of Technology on Teacher Role and Collaborative Learning.
B: Patterns of Teacher Use of Technology
C: Frequency/ Design of Instructional Setting Using Digital Content.
D: Curriculum Areas.
E: Technology Applications Assessment.
F: Patterns of Student Use of Technology.

2. Stakeholder Involvement in Planning

Maury Middle School Technology Team

Jim Hodge	Principal
Tim Collins	Assistant Principal
Pat Layton	Math Teacher
Carol Bradley	Social Studies Teacher
Betty Jo Leonard	Science Teacher
Jeff Smith	Band Director
Angela Rogers	Math Teacher
Lea Anna Miller	Counselor

Stakeholders were asked to develop, write, and/or approve a comprehensive district technology plan that would prepare our students to become technology literate and be able to use technology in career goals. The stakeholders were charged with setting school and district-wide goals and developing a plan that would be both attainable and visionary.

3. Timeline, Technology Implementation - 2005-2008

Improvements will be made as funds become available.

	2005-06	2006-07	2007-08
Funding	• Tech Plan Submitted • Tech Plan Submitted for Board Approval • 1 technician per 600 machines • Continue to apply for E-Rate funds • Apply for Formula EdTech Funds • Apply for grants to supplement and fund technology plan • Request Board Supplemented Technology Funds • Work with building level administrators in their planning and spending of school technology funds	• Add 1 technician per 500 machines • Apply for grants to supplement and fund technology plan • Request Board Supplemented Funds for Technology Replacement • Work with building level administrators in their planning and spending of school technology funds • Continue to apply for E-Rate funds	• Add a supplement for school technology contacts • Add 1 technician per 400 machines • Apply for grants to supplement and fund technology plan • Request Board Supplemented Funds for Technology Replacement • Work with building level administrators in their planning and spending of school technology funds • Continue to apply for E-Rate funds
Infrastructure	• Upgrade firewall protection at all school and web servers • Identify new networking technologies to improve speed • Maintain an online database system for schools to report technical needs	• Identify new networking technologies to improve speed of delivery of content • Begin developing wireless networks for each school • Continue to provide an online database system for schools to report technical needs • Upgrade cache flow to provide for video streaming	• Identify new networking technologies to improve speed of delivery of content • Develop wireless networks for each school • Continue to provide an online database system for schools to report technical needs

Hardware and Software	• Upgrade teacher computers district wide every four years • Upgrade lab(s) in local schools as needed • Continue to provide Internet integration resources through Tech Update and Day by Day websites • Continue to upgrade network software aligned with curriculum objectives established by the TN SDE • Continue to provide and upgrade web server for district and classroom websites • Continue to upgrade hardware/software for school administrators, faculty, and attendance staff	• Upgrade teacher computers district wide every four years • Continue to provide Internet integration resources through Tech Update and Day by Day websites • Continue to provide and upgrade web server for district and classroom websites • Continue upgrading existing labs in local schools • Continue to upgrade network software aligned with curriculum objectives established by the TN SDE • Continue to upgrade hardware for school administrators, faculty, and attendance staff • Add technology facilitators in all existing computer labs	• Upgrade teacher computers district wide every four years • Continue to provide Internet integration resources through Tech Update and Day by Day websites • Continue to provide and upgrade web server for district and classroom websites • Continue to upgrade network software aligned with curriculum objectives established by the TN SDE • Continue to upgrade hardware for school administrators, faculty, and attendance staff

Staff Training	• District-wide technology workshops for all grade clusters during the summer • Coordinate with school-level administrator on gaps from the Tennessee E-TOTE and Jefferson County online assessment tool • Offer courses/workshops each week throughout the school year on technology titles of interest. Interests will be determined from the local needs assessment, achievement test scores, and District and School Improvement Plans • Offer technology training centered around technology goals • Continue to offer an on-line training through the county's tech tutorial web site • Provide and coordinate on-site professional development based on needs of schools • Provide funding for each school to send teachers to TETC conference • Establish a technology based year-long professional development project based on achievement need identified from TerraNova • Establish online curriculum based on SDE objectives aligned with Internet resources to be utilized by teacher and learner • Provide training and opportunity for a school representative to update the individual school website monthly •Provide one day (one optional day) of technology training for new personnel	• District-wide technology workshops for all grade clusters during the summer • Coordinate with school-level administrator on gaps from the Tennessee E-TOTE and Jefferson County online assessment tool • Offer courses/workshops each week throughout the school year on technology titles of interest. Interests will be determined from the local needs assessment, achievement test scores, and District and School Improvement Plans • Offer technology training centered around technology goals • Continue to offer an on-line training through the county's tech tutorial web site • Provide and coordinate on-site professional development based on needs of schools • Continue to provide funding for each school to send teachers to TETC conference • Establish a technology based year-long professional development project based on achievement need identified from TerraNova • Update online curriculum based on SDE objectives aligned with Internet resources to be utilized by teacher and learner • Continue to provide training and opportunity for a school representative to update the individual school website monthly • Provide one day (one optional day) of technology training for new personnel	• District-wide technology workshops for all grade clusters during the summer • Coordinate with school-level administrator on gaps from the Tennessee E-TOTE and Jefferson County online assessment tool • Offer courses/workshops each week throughout the school year on technology titles of interest. Interests will be determined from the local needs assessment, achievement test scores, and District and School Improvement Plans • Offer technology training centered around technology goals • Continue to offer an on-line training through the county's tech tutorial web site • Provide and coordinate on-site professional development based on needs of schools • Continue to provide funding for each school to send teachers to TETC conference • Establish a technology based year-long professional development project based on achievement need identified from TerraNova • Update online curriculum based on SDE objectives aligned with Internet resources to be utilized by teacher and learner • Continue to provide training and opportunity for a school representative to update the individual school website monthly • Provide one day (one optional day) of technology training for new personnel

Assessment	• Staff to take the Jefferson County Schools online Technology Self-assessment Survey • Analysis of STaR data • Analysis of E-TOTE data • School Report of Standardized & State Testing • Utilization of Clarity Testmate software and TVAAS to evaluate learner and instructor efficiency	• Staff to take the Jefferson County Schools online Technology Self-assessment Survey • Analysis of STaR data • Analysis of E-TOTE data • School Report of Standardized & State Testing • Utilization of Clarity Testmate software and TVAAS to evaluate learner and instructor efficiency	• Staff to take the Jefferson County Schools online Technology Self-assessment Survey • Analysis of STaR data • Analysis of E-TOTE data • School Report of Standardized & State Testing • Utilization of Clarity Testmate software and TVAAS to evaluate learner and instructor efficiency
Student Learning	• Provide students technology based learning through staff development projects • Provide online instructional courses for learners • Provide student resources for mastery of objectives (Tech Update, Basic Skills) • Evaluation of all student testing data completed district-wide, TCAP, ACT, SAT, etc. • Provide online subscription services for resources that enhance instruction/learning opportunities.	• Evaluation of all student testing data completed district wide, TCAP, ACT,SAT, etc. • Provide students technology based learning through staff development projects • Provide student resources for mastery of objectives (Tech Update, Basic Skills) • Provide online subscription services for resources that enhance instruction/learning opportunities.	• Evaluation of all student testing data completed district wide, TCAP, ACT, SAT, etc. • Provide students technology based learning through staff development projects • Provide student resources for mastery of objectives (Tech Update, Basic Skills) • Provide online subscription services for resources that enhance instruction/learning opportunities.
Staffing	• Add an additional computer technician	• Continue to provide additional technicians as funding and equipment needs require.	• Continue to provide additional technicians as funding and equipment needs require. • Provide a Tech Coach. (certified teacher) at each school.

4. Responsible Parties

All Stakeholders are responsible to see that the goals and objectives are met.

II. Content Elements

5. Vision

The mission of Maury Middle School is to challenge students to excel in academic achievement, in social development, and in extracurricular opportunities. Our schools will be responsible for providing all students with:

- Challenging learning opportunities through an integrated curriculum
- Hands-on experiences necessary for today's technically advanced society
- Resources necessary to set realistic career goals

Since education extends far beyond the four walls of the classroom, we see the community's role as:

- Parents and guardians actively involved in the development of their children's intellectual growth, citizenship skills, and physical and emotional well-being
- Business industry and government joining together in the teaching and learning process.
- Local government assuring the availability of critical resources to provide our students with a top-quality learning environment.

In this vision, Jefferson County will enhance its "Community of Learning" where the focus of education is extended to all community members.

6. Goals and Objectives: *(Responsible Parties)*

Administration/Faculty Goals

A. Use technology to identify gaps in student learning and analyze assessment data. (Administrators & faculty)

B. Use technology that is developmentally appropriate to promote active learning and individualize instruction. (Faculty)

C. Ensure access to assistive technology for students with disabilities (Faculty with emphasis on Special Education faculty)

Student Goals – (Faculty)

A. Students will communicate through applications software.
Create well-written documents, spreadsheets, and presentations.
Use computer-assisted design tools.

B. Students will communicate visually, graphically, and artistically through multi-media presentations.
Use a variety of technology (computers, projection devices, camcorders, scanners, calculators, copiers, laser discs, video and audio equipment, cameras).

C. Students will communicate through networks and telecommunications.
Use computer networks and telecommunications (electronic mail, voice mail, video)

D. Students will access and retrieve electronic information.
Use search strategies to retrieve information
Use on-site electronic resources (encyclopedias, catalogs, indexes, hand-held learning tools)
Use networks to access information (on-line databases, libraries, electronic bulletin boards)

E. Students will interpret and evaluate information to support learning in all content areas.

F. Students will use technology to enhance their productivity
Use technology to develop learning and workplace skills
Develop strategies for problem solving, critical and creative thinking
Create high quality multi-media products
Develop creativity and innovation through the use of technology

G. Students will develop basic technology skills.
Select and access technology appropriate to needs
Use correct starting and exiting procedures
Develop keyboarding skills
Operate peripheral devices
Use technology independently and cooperatively
Use technology safely and ethically

7. Collaboration Among Educators

A district-wide online curriculum has been developed by the district technology committee for math, language arts, science, and social studies through the use of the Curriculum Designer software. Technology resources will be continually updated to the curriculum. The goals and objectives from the district technology plan will be integrated into this curriculum. All educators in Jefferson County will be integrating this curriculum into their classrooms. The county will hold a district-wide in-service for training for the committee on the usage of the software. The committee members will then return to their home schools and gather input from classroom teachers, library staff, administrators, and educational technology staff on the implementation of the curriculum into their classroom. Jefferson County Schools has also collaborated with other school systems by sharing equipment and technical expertise.

8. Collaboration with Community Partners

- Jefferson County currently collaborates with businesses throughout the county. Local businesses and industries are involved with the schools in Job Shadowing programs, Career Fairs, and career visits. Many of our students have work release time in which they earn credit for job related activities.
- Jefferson County has also worked with the *Carson-Newman College* in the development of curriculum resources and teacher training. These partnerships involve our teachers and community members attending class after the school day. Often these courses include the use of technology in our buildings.
- Jefferson County's technology staff and administrators have participated the Administrator's Technology Academy in East Tennessee for administrators all across the state to earn TASL credit and technology information.

9. Curricula and Teaching / Integrate Technology

- Provide an online curriculum web site and Internet resources designed to increase the use of integrated technology.
- Expand classroom tools for teaching and learning.
- Provide for the integration of multiple resources for existing and emerging curriculum.
- Enable learning communities to communicate more effectively, access and process information, and work productively.
- Link the classroom with educational resources within the building, community and worldwide.
- Create a collaborative environment for project-oriented activities.
- Encourage the use of multimedia tools enabling students to become active and experiential learners.

10. Increasing Accessibility

Presently, all teachers at Maury have Internet access in the classroom. We also have two computer labs. (The addition of new computers is based on funding opportunities.)

11. Equity

Title One Schools received funds which were used to acquire additional technological resources.

In Jefferson County we plan to...

- Provide minimum standards of hardware and software for all students, staff, and sites.
- Implement grade level technology goals identified to ensure equity of delivery to all students (see Learning Goals).
- Expand and enhance communications to provide parents/community greater access to school information and staff.
- Enable students/parents/community, via telecommunications, access to school learning resources, classroom lessons/assignments and school information 24 hours a day.
- Promote and encourage an active partnership between schools, businesses, homes and the community.

- Every classroom teacher has a teacher station that comprised of: computer, laser printer, 32" TV monitor, Microsoft Office Suite, and movable cart.

12. Professional Development

County-wide in-service will be held to inform all personnel of the technology plan, including teacher and student expectations. Jefferson County has a full time district Instructional Technology Specialist to providing ongoing faculty and administrator training in the following areas:

- Word processing
- E-mail, including attachments, use of e-mail for classroom projects
- Basic computer use and maintenance
- Using electronic student management software
- Creating desk-top publishing and teacher web pages
- Locating and integrating online resources such as free web quests, online videos, and Power Point activities
- Understanding and recognizing web programming languages
- Locate and apply for technology integration grants
- Identify and correlate online lessons with state standards
- Analyzing state standardized test data
- Work with media specialist to interpret and evaluate electronic media
- Integration of technology into the curriculum

On-line course catalog is posted monthly on the Jefferson County School website.

13. Budget

See Timeline, items subject to funding.

14. Interoperability

A. File Servers

Microsoft Windows NT, and Microsoft Advance 2000 Server are all used throughout Jefferson County Schools. Shared applications and data reside on all servers throughout the district.

B. Printing Services

Networked print server devices are used with TCP/IP for some DEC/VMS remote print services. All computers have access to printing.

C. Other Services

- Ten-Nash provides e-mail in addition to SMTP gateway services. All new staff is provided an email account through Ten-Nash. ENA provides Internet caching services for Jefferson County High School.

- Domain Name Service (DNS) is provided via ENA servers. DNS files are maintained within the district.
- DHCP service is provided District-Wide.
- Library cataloging service is provided at all schools.
- Student records, fiscal and human resource databases reside at the local school on a server. Centralize data resides at the technology office on Microsoft Windows NT server.
- The district maintains 3 district wide web servers. (jc-schools.net, classroom.jc-schools.net, and jchs.jc-schools.net)
- The district maintains one email server. (mail.jc-schools.net)
- Jefferson County Schools supports an Internet filtering server through ENA.
- Linux firewall servers are provided at every school and the central office.
- Jefferson County supports over 7,600 users and 19 file servers.

D. Management

Microsoft Proxy Server and Linux firewalls are used to protect and manage our users' access to resources on the Internet. Trend Micro software is used to protect our email server from viral and spam attacks. McAfee Anti-virus is used to protect all of our servers and workstations from viruses. Fortress is used to manage all workstations and control users' abilities to change workstation settings.

E. Internet Connection

E.1 Frame Relay

The district Internet connection is a frame relay, 1.544 megabit per second T-1 with a committed information rate of one-half T-1. The high school has two T1 connections. Internet services are provided by the Connect-TN provider for the State of Tennessee. Internet connection routers are physically located at the school sites and connect back to the Knoxville ENA tap.

E.2 Internet Service Provider

Connect-TN provides the district's with IP addresses. Maintenance and issuance of IP addresses and names assigned to the district are done by district technical staff.

E.3 Fully Networked

All PC compatible networked workstations are at least Intel or AMD CPU class computers. Computers in the district include Pentium and AMD quality. There are currently more than 1 computer to 3 students fully, networked workstations in the district.

E.4 Productivity

The *Microsoft Office* suite comprise the district's primary personal productivity software package. *Netscape Composer* is the district's primary web development software.

F. VCR and Video Monitors on Carts
Each school has numerous VCRs and every classroom has 32" TV monitors on carts.

G. Wiring
New and renovated facilities will be equipped with Category 5 Unshielded Twisted Pair or subsequent high-speed wire standard certified to 622 Megabits per second. Every classroom and administrative workspace has at least one outlet. All schools have fiber riser and backbone.

H. LAN Protocols
The district will adopt IP/IPV6, VPN , and NetBEUI and/or other high-bandwidth quality of service protocols as evolving standards certify them for use and common acceptance drives their price into affordable ranges.

I. Software
The district will continue to maintain and update a standard set of contemporary software for educational, personal productivity and administrative uses. The *Microsoft Office Professional* suite is the district standard. Client software will be upgraded to keep pace with evolving Windows standards; server software will parallel this evolution. Hardware upgrades will be a continuing necessity to meet the ever increasing processor and memory requirements of more demanding client and server software implementations. All software will be maintained at a functional revision level.

The district workstation paradigm will also continue to evolve. The first notable shift will be away from a model that installs all software on a local hard drive to one that places more emphasis on server delivered applications. The emergence of Net PCs and Thin Client systems will necessitate a continuing review of software delivery methodologies as these technologies mature.

J. Electrical Capacity
The district will continue applying electrical standards to its sites to provide adequate levels of service and to afford adequate protection of equipment. Planning for new construction and existing building renovations will include provisions for a comprehensive review of electrical capacity requirements to ensure that technology enhancements are considered and included in project engineering and design.

15. Leadership

The Jefferson County Schools administrators will play an integral role in the effective integration of educational technology. The most effective way administrators can promote technology use is to, themselves be knowledgeable and effective users of technology. Administrators will be expected to follow the Technology Standards for School Administrators developed by the Collaborative for Technology Standards for School Administrators, (to view the complete list of standards, link to

http://cnets.iste.org/tssa/view_standards.html) Administrators will be an advocate in the schools for research-based effective practices in use of technology. They will also support the district technology plan and administer its components in their local schools to achieve the plan's goals and objectives. Administrators in Jefferson County Schools feel that modeling effective practices and uses of technology are an integral part of technology integration. Administrators will ensure that each staff member has the opportunity to engage in professional development to enhance their classroom instructional procedures.

16. Review of Policies and Procedures

Jefferson County Schools has an acceptable use of technology and the Internet policy for students and teachers. Jefferson County Schools provide ENA blocking and filtering of Internet sites as well as local filtering. Jefferson County Schools is in compliance with the *Child Internet Protection Act* (CIPA).

17. Evaluation

Administrators, teachers, and students will complete an online, self-evaluation rubric based on the Mankato Scale, developed by Makato (Minnesota) Public Schools and adapted by Bellingham (Washington) Public Schools, for a sample see http://www.bham.wednet.edu/tcomp.htm. The results will be used to plan further district in-services and school-wide professional development activities.