

Charlotte **Public Schools**



DISTRICT TECHNOLOGY PLAN

2006-2009

Board Adopted: May 8, 2006

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TECHNOLOGY PLAN SUMMARY SHEET

District: Charlotte Public Schools

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Years covered by this plan: July 2006 – June 2009

Date of next state review (3 years from start date): June 2009

Intermediate School District: Eaton Intermediate School District

URL for Technology Plan: http://www.charlottenet.org/techplan/dtc_plan_complete.htm

PREFACE

The District Technology Committee (DTC) is responsible for developing and implementing the District Technology Long-Range Plan; developing and recommending policies and procedures that govern the use of technology in educational settings; training and professional development; as well as the integration of technology into teaching, learning, and staff productivity. Charlotte Public Schools is fortunate to have a dedicated group of staff and community members who continually commit time and effort to create a plan that will benefit our students.

This District Technology Long-Range Plan communicates to our school community our vision that Charlotte Public Schools is committed to providing resources for and access to technology for teaching, learning, and productivity. The additional commitment to training and support provides the conditions for success in this endeavor.

The District Technology Plan evolves yearly through our efforts to evaluate the present status of the district with respect to the effective use of technology in service learning. The DTC committee examines the best vital knowledge in technology literacy to drive and reshape the district's practices, structures, relationships, and beliefs. The resulting document serves the district well by guiding the use of technology and our development as a learning organization of self-directed quality contributors. The development and ongoing improvement of this Technology Plan reflects the efforts of staff, parents, students, business and community members. Input from all stakeholders assures a solid technology plan that identifies real needs.

The plan will be implemented with available grant revenue, Universal Service Fund reimbursement, and a planned annual general fund-operating budget. Although this plan is an overall blueprint for action and a desired implementation schedule, the budgeting process will influence the time-line and success of implementation. This plan will be evaluated annually in a comprehensive manner by the District Technology Committee as a basis for making revisions and adjustments to the long-range plan. Implementation and benefits of this Technology Plan progress each year and can be observed in classrooms across the district.

The Charlotte Board of Education adopted this District Technology Plan as submitted by the DTC. In doing so, the Board acknowledged the importance of the vision, goals, and objectives of the plan that will continue to drive the development of a technologically literate student body and work force. The Board of Education extends its gratitude to the members of the committee for their leadership, dedication, and commitment to the future of Charlotte Public Schools.

DISTRICT PROFILE

Charlotte Public Schools

Charlotte Public Schools is located in the City of Charlotte and serves surrounding townships in northeastern Eaton County Michigan. The district is comprised of four elementary schools, one middle school, one high school, and two alternative education programs. The district covers an area of 124 square miles with a total enrollment of approximately 3,300 students. The passage of recent millages have provided funds for renovation to five buildings, building a new middle school, a new Aquatic Center, and Performing Arts Center.

Two-hundred-ten teachers and sixteen administrators work in eight buildings to support the educational needs of our K-12 students. Our student population represents all socio-economic levels with a free-reduced lunch population of 40%.

Charlotte is the county seat with a population of approximately 8,500 supporting a variety of businesses and residents. Charlotte's geographic location is in close proximity to three major universities, several private and community colleges, the State Capitol, and the State of Michigan Historical Museum. It provides access to a variety of cultural and employment opportunities for its residents.

School Buildings

Names and addresses of school buildings in the district:

- *Charlotte High School (9-12)*
378 State Street
- *Charlotte Middle School (5-8)*
1068 Carlisle Highway
- *Annex Alternative Ed (14-16 yrs.)*
378 State Street
- *Froebel Alternative Ed (17-20 yrs.)*
378 State Street
- *Galewood Elementary (K-4)*
512 E. Lovett Street
- *Leora Weymouth Elementary (K-4)*
346 State Street
- *Parkview Elementary (K-4)*
301 E. Kalamo Highway
- *Washington Elementary (K-4)*
525 High Street



DISTRICT TECHNOLOGY PLANNING TEAM

Co-Chairs: Sharon Kubica and Jen Varney

Name	Position
Allmon, Mindy	Middle School, Lab Manager
Anderson, Karen*	High School, Media Specialist
Balko, Ida	Technology Service Coordinator
Bennett, Jeff	High School, Lab Manager
Braden, Sue	Computer Software Work Leader
Caudell, Kim*	Parkview Elementary School, Principal
Edwards, Therese	Galewood Elementary School, Principal
Ellinger, Carl*	Charlotte Public Schools, Superintendent
Haston, Jeff	Middle School, Teacher
Johnson, Judy	Galewood Elementary, Teacher
Kubica, Sharon	Media/Technology Services, Director
Leckrone, Dian	Elementary, Media Specialist
Ritzema, Thom	Washington School Elementary Principal
Rosekrans, Mark*	Associate Superintendent for Operations
Sovey, Don	Associate Superintendent for Business
Stewart, Jim	Elementary Technology Teacher
Taylor, Mary	Associate Superintendent for Curriculum
Terry, Teri	Middle School, Media Specialist
Vagts, Tim	Weymouth Elementary School Principal
VanSyckle, Tina	High School, Teacher
Varney, Jennifer	High School, Assistant Principal
Webb, Lori	Middle School Assistant Principal
Woods, Karen	Special Education, Director
	Parent
*Denotes that committee member is also a parent with students currently in the district.	

The District Technology Committee membership consists of representatives from each district building, including teachers, administrators, technology support staff, and community members. Membership is updated at the start of each school year with recruitment if necessary. We are fortunate to have had a very stable membership over the years which add to its credibility and effectiveness since members of this committee are knowledgeable about policies, practices, history, and expectations for all.

The DTC is responsible for developing and implementing the District Technology Long-Range Plan; developing and recommending policies and procedures that govern the use of technology in educational settings; training and professional development; as well as the integration of technology into teaching, learning, and staff productivity.

VISION, MISSION, AND GOALS OF CHARLOTTE PUBLIC SCHOOLS

Vision

A learning organization of self-directed, quality contributors.

Mission

Working together with you to prepare all students to become successful citizens who can meet tomorrow's challenges.

Charlotte Public Schools 2006 - 2009 District Goals

It is the intention of Charlotte Public Schools to develop curriculum, employ instructional practices and assessment systems aligned with each school and district improvement plans. We strive to be consistent with the State Board of Education approved curriculum content standards and then insure that professional development is provided so that all educators will have the skills necessary to effectively instruct all students.

Furthermore, Charlotte Public Schools intends to identify and implement, through analysis of data, appropriate improvement strategies that will include the integration of technology to increase student performance.

The use of technology in today's society is a critical component of all facets of business, education, and government operations. The job market has undergone a massive transformation from an industrial-based to an information-based economy. Not only is rapid growth occurring in the technology sector, but more and more jobs increasingly require some level of technological skill. It is increasingly evident that computer skills are essential to future job success. An estimated 60% of all jobs require skills with technology. (*Irving, Larry, as cited in Benton Foundation, Losing Ground Bit by Bit: Low Income Communities in the Information Age, June 1998, p. 4.*)

To that end, Charlotte Public Schools, giving its commitment in its mission statement “**to prepare students to become successful citizens who can meet tomorrow's challenges**” and its dedication to mastery of process skills, including creative and critical thinking, decision-making and problem solving, will in the most natural way involve the integration of technological skills across curricular areas. Furthermore, in the district goals it is stated that the use of data, technology, and professional development of educators will be provided and utilized to effectively instruct all students. Thus, Charlotte Public Schools' technology plan is integral and vital to the success of the overall vision, mission, and goals for the district as a whole - educational staff and students K-12.

Slogan

“Your partner in preparing for tomorrow.”

TECHNOLOGY PLAN INTRODUCTION

Background of our technology planning initiative

Charlotte Public Schools has had a strong District Technology Committee since the 1990-91 school year. This committee has consistently addressed issues, policies, and procedures for technology access, use, and integration. This current long-range district technology plan will be the fifth adopted and approved by the board over the past 16 years.

Consistent membership, including parents and community members, along with strong leadership, has provided the focus, direction, and support for implementing technology in all district buildings that allows employees to be productive and students and teachers to work in technologically rich environments that support teaching and learning. A well defined District Long-Range Technology Plan articulated our technological needs to our community so that more than \$6 million approved by voters in 1999 and 2002 providing a technology infrastructure, computers, and equipment for a voice, video, and data system that is second to none.

The District Technology Plan is posted on the district website. Copies are provided to all District administrators and are available for circulation from each building Media Center for staff and parents. All requests for a personal copy are honored.

Overview

The vision that defines and drives our goals and objectives is that technology will assist students and staff to be self-directed and collaborative learners in the “inquiry-centered classroom of the future.” The district also intends to provide instructional and administrative tools to improve productivity, collect data, and communicate with parents and the community at large. Our goals and objectives are designed to assist the Charlotte School District achieve its District Mission which is **“to prepare all students to become successful citizens who can meet tomorrow’s challenges.”** Technology will be used to assist in the attainment of district-adopted goals and objectives across the curriculum.

The goals and objectives in this plan will allow the District to implement technology that will inspire, enlighten, and excite students and staff. This plan will insure that technology is available to all students and staff, and that technology becomes the modern “pencil.” The aim is to INFUSE technology into the instructional and administrative areas within the district. Only our imagination will limit our achievements.

The following guidelines will aid in meeting the goals of this plan:

1. Curriculum and student needs will drive the allocation and use of technology.
2. Staff training will be a priority.
3. Community access to the schools and technology systems will be facilitated.
4. Safety and security in the facilities will improve.

5. A plan for the continuous purchase, placement, use, evaluation, and replacement of technology will be designed and implemented based on curriculum, instructional, and administrative assessments.

District technologies initially and annually will be inventoried to determine their use and functionality. The district uses available funds, from all sources, to maintain, update, improve, and replace technology as necessary.

Classroom, school, and district administrative functions, including internal and external communications, will be executed with the highest degree of efficiency, accuracy, and timeliness through the use of technology. An internal on-line program for media center and computer lab scheduling, requests for technology support and maintenance work orders, technology training schedules, and a Self-Help database, is available on every district computer and is used to create efficiency and improve productivity. Web-based options that offer opportunities for parents and staff to communicate about classroom activities, follow the progress of their student, and access informational resources is provided as a service of the district. The district phone system is used to communicate with parents and colleagues regarding school activities, programs, homework, and other important information related to student needs and teacher expectations.

VISION, MISSION, AND GOALS OF THE TECHNOLOGY PLAN

Vision

A technology literate learning organization.

Mission

Working together with staff and students to improve teaching and learning using technology.

Charlotte Public Schools 2006-2009 Technology Goals

The Charlotte School District envisions Technology as a tool to assist students and staff to become self-directed and collaborative learners, able to ask questions, seek answers, and apply the information found. “Learning to LEARN through Technology” is the means by which information will be conveyed as we move into the information age. The intent of the Charlotte School District is not just to teach technology, but instead to use it to provide students with a fundamental resource, which targets critical skills and knowledge, required for success in the complex society of today and tomorrow. Self-directed and collaborative learners will understand basic technology operations and effectively utilize them to:

- Communicate
- Search for information
- Gather information
- Collaborate with peers and authorities
- Analyze information and make decisions
- Compile results

The intent of “Learning to LEARN through Technology” is to provide access, professional development, and opportunity to integrate technology as a means for students to meet the expectations of the district K-12 curriculum. Technology as a tool will help staff improve instructional practices, communication, and administration of the classroom, school, and district.

Slogan

“Learning to LEARN through technology.”

TECHNOLOGY GOALS 2006-2009

To achieve our mission and vision, the District is committed to:

1. Integrating the use of technology in the district adopted K-8 curriculum aligned with METS and 9-12 curriculum aligned with Content Standards and Benchmarks (and the 9-12 grade METS when available).
2. Providing support and training for staff as they implement the use of technology aligned with the Michigan Educational Technology Standards (METS) and the National Educational Technology Standards (NETS).
3. Providing access to technology for students, staff, and community, to enhance learning and communications.
4. Evaluating and implementing available technologies to increase student achievement.
5. Assessing student achievement relative to the integration of technology based on the METS and NETS as well as local curriculum.

Technology Goals

Goal #1 The District is committed to:

Integrating the use of technology in the district adopted K-8 curriculum aligned with METS and 9-12 curriculum aligned with Content Standards and Benchmarks (and the 9-12 grade METS when available).

The guidelines from the Michigan Educational Technology Plan and state standardized testing requirements guide us in evaluation, implementation and improvement for an integrated K-12 curriculum at Charlotte Public Schools.

CURRICULUM INTEGRATION

- The METS checklist is used to review alignment of curriculum. (2006/07)
- Technology components utilized are identified through the teacher evaluation process. (yearly)
- Professional development opportunities are provided to assist in technology integration to supplement curriculum. (yearly)
- K-12 United Streaming provides teachers another curriculum presentation option. (yearly)
- The high school Vocational Educational Curriculum provides many opportunities for students to develop real-world technical skills. (yearly)

STUDENT ACHIEVEMENT

- Starting in the fall of 2005, we will have an 8th grade formal assessment for technology literacy to assess student performance against the METS. (2006/07)
- Technology literacy can be used to help with writing skills. (2006/07)
- MOS certification is provided at the high school level to assess student achievement for the MS Office Suite. (yearly)
- Basic technology skills at the elementary level are observed and evaluated to assess individual achievement throughout the year. (yearly)

TECHNOLOGY DELIVERY

- Blackboard allows student and teacher to communicate outside the classroom through email, assignments, instructions, evaluation. (yearly)
- On-line courses (MVHS) provide high school/alt ed students the opportunity to take advanced courses or make up credit. (yearly)
- Classes are offered at the high school in cooperation with Lansing Community College with the option to use interactive distance learning. (yearly)
- Family Access is a link through our school home page that allows communication between family members and individual schools concerning grades, attendance, lunch accounts and scheduling. (yearly)
- Career Cruising (high school & middle school) is an on-line vocational assessment to explore career pathways. (yearly)
- Access to technologies both BASIC and ADVANCED (as defined on pg. 26) will be made available to classrooms as required by curriculum. (yearly)

PARENTAL COMMUNICATIONS/COMMUNITY RELATIONS

- The District Technology Plan will be posted on the Charlotte Public School's website.
- On-line newsletters are provided by all buildings to keep families informed of weekly, monthly and yearly activities.
- Family Access is a link through our school home page that allows communication between family members and individual schools concerning grades, attendance, lunch accounts and scheduling.
- There are many hyperlinks from the Charlotte Public School web site to community links (i.e. Chamber of Commerce, Charlotte Area Networking for Development and Opportunity – CanDo!, and City of Charlotte).
- Email addresses are posted for all Charlotte Public School staff.
- There is a combination of teacher/parent/administrator representation on the District Technology Committee.

COLLABORATION

- Charlotte Public Schools does not have an ESL (English as a Second Language).
- Charlotte Public Schools does not have a formal, on-site Adult Education program; however, academic requirements for some adults are received through the Eaton County Jail Facility.
- The GED certification program is run through alternative education facility and at this time does not require collaboration.

Goal #2: The District is committed to:

Providing support and training for staff as they implement the use of technology.

CURRICULUM INTEGRATION

Currently we have pockets of excellence where teachers know and understand how to integrate specific technologies in their curriculum area. In the future, given access, time, and support, the district expects all teachers to be able to know and understand how the use of appropriate and specific technologies can positively impact teaching and learning.

- Demonstrate and model the use of available technologies for staff. (yearly)
- Provide formal and informal training opportunities where teachers plan the use of technology to augment the curriculum and classroom practices. (yearly)
- Assist teachers as they create lessons that integrate technology into critical thinking and problem solving activities. (2006/07)
- Support them in the use of technology with all students regardless of past experience or individual abilities. (yearly)
- Have K-12 Media Specialists and Technology Teachers coach General Education teachers in the use and integration of technology. (yearly)

STUDENT ACHIEVEMENT

- Demonstrate specific technologies that improve student achievement related to curriculum area and grade level. (yearly)
- Provide training on specific technologies related to curriculum area and grade level. (yearly)
- Support teachers as they use these specific technologies to improve student achievement. (yearly)
- MEAP scores will assist us in determining the effectiveness of the integration of technology in the curriculum. (yearly)
- Evaluate eighth grade performance on the NCLB Technology Literacy Assessment and make necessary adjustments in K-8 curriculum. (yearly)
- Evaluate ninth-twelfth grade performance in specific courses that require technology competency. (yearly)

TECHNOLOGY DELIVERY

- Look at how staff uses technology to determine how well we are integrating what is currently available. (2005/06 school year).
- Target areas and technologies that should be used more effectively and develop a plan to provide training and support. (2006/07)
- Implement the plan to increase technology integration. (2007/08)
- Evaluate student assessments after course completion and make necessary adjustments for staff training for each semester. (yearly)

PARENTAL COMMUNICATIONS AND COMMUNITY RELATIONS

- Support the use of Email, voice mail, and on-line resources, such as Blackboard or teacher web-pages, to communicate with parents and the community.
- Provide continuous training in the use of the web-based grade book, attendance reporting, and other features of parental web-access to student information.
- Assist staff in creating materials for placement on the district web page.

COLLABORATION

- Regional Technology Academy
- REMC trainings
- Invitations to private and parochial school staff
- Community Education offerings

RESOURCES:

1. Local teachers as trainers for technology skill and technology integration classes which are offered at various dates and times to accommodate all staff schedules including a multi-day June Technology Camp.
2. Summer training in collaboration with Eaton Intermediate School District for staff to enhance skills and develop projects for classroom integration. Examples include Technology Pioneers and the Regional Technology Academy.
3. Administrative participation in “Lead to the Future”
4. Attendance at conferences related to grade levels and subject areas with reports back to colleagues to share information.
5. Attendance at REMC workshops held prior to monthly Media Specialist meetings.
6. Attendance at Regional After-School Specials (RASS).
7. Michigan Virtual University (MIVU) for on-line training opportunities 24 hours a day, seven days a week.
8. Opportunities for technology instructors, secretaries, and technology support personnel to attend professional training centers such as New Horizons, etc.
9. Workshops through outside organizations for training and certification including MOS (Microsoft Office Specialist) Certification workshops.
10. Michigan LearnPort trainings and professional development tracking.
11. My Teach4Learning (T4L) site for training and professional development.

Goal #3 The District IS committed to:

Provide access to technology for students, staff, and community, to enhance learning and communications.

CURRICULUM INTEGRATION

- All district classrooms will be provided with technologies to be used in teaching and learning. (yearly)
- Each building will have computer labs for student use with additional resources available through each buildings media center. (yearly)
- Students will have opportunities to participate in Michigan Virtual High School on-line courses. (yearly)
- District will continually evaluate current course offerings and create new ones as the need arises. (yearly)

STUDENT ACHIEVEMENT

- Students K-8 will be provided with technology literacy classes where they learn technology skills that support them as they do activities planned by their teachers. (yearly)
- Eighth grade students will successfully complete the technology literacy requirements for NCLB. (yearly)
- High school students will successfully complete a computer literacy course as a requirement for graduation. (yearly)
- Students enrolled in additional high school courses that use technology will be assessed as determined by the course outcomes and the high school METS. (yearly)

TECHNOLOGY DELIVERY

- Individuals will have access to technology as needed for personal use, research, curricular, and administrative purposes. (yearly)
- Teachers will have access to computer labs as needed. (yearly)
- District will support and maintain the infrastructure, hardware, and software as required by curriculum needs. (yearly)
- Assistive technology will be available in each building including software that supports reading, writing and thinking. (yearly)

PARENTAL COMMUNICATIONS/COMMUNITY RELATIONS

- Opportunities will be provided to use computer labs and other resources for instruction and literacy.
- Parents will receive information on using the district's Family Access resources.
- Community, parents, and staff will be instructed to use voice mail, Email, and the district website for communication purposes.

COLLABORATION

- The district will be a participant in REMC and Regional Tech Academy offerings.
- Encourage development of technology use support groups in the district.
- The district will strive to offer opportunities for learning that meet the unique needs and schedules of all interested parties.
- Communication with local employers will be used to identify real life technological skills need for employment.

Goal 4: The District IS committed to:

Evaluating and implementing available technologies to increase student achievement.

CURRICULUM INTEGRATION

- Grades K-8 will use the METS standards as guidelines to support curriculum goals. (2006/07)
- The National Educational Technology Standards for Students will provide a guideline for technology implementation. (2006/07)
- Grades 9-12 will use the technology course guidelines to meet requirements for graduation. (2006/07)
- Teachers will evaluate various technologies to best meet the learning needs of their students as they develop their curriculum. (yearly)

STUDENT ACHIEVEMENT

- 8th grade students will have a formal assessment for technology literacy to assess student performance against the METS. Additionally, informal assessments will take place annually K-7 using the METS. (2006/07)
- Technology literacy can be used to help with North Central (NCA) goals across the curriculum. (2006/07)
- Evaluate the application of technology skills in instructional activities in the core academic content areas. (yearly)
- Monitor High School student records and Educational Development Plans, to identify vocational and academic needs for future planning for individual students. (yearly)

TECHNOLOGY DELIVERY

- Teachers will be able to attend training sessions on the various types of technology available now and in the future. (yearly)
- Demonstrations of technology that could be used to implement curriculum will be presented at staff meetings, district meetings, and curriculum meetings. (yearly)
- Each classroom will have computers and software available to support the curriculum for student and teacher use. (yearly)

PARENTAL COMMUNICATIONS/COMMUNITY RELATIONS

- Results of student achievement will be presented to parents, administration, curriculum council and board of education regularly.
- Student achievement data will be made available through the school district's annual report.
- Relevant information is posted on district webpage.

COLLABORATION

- Our Technology Department will work with all program leaders to provide continuity in hardware, software, in-service, and technology program development in alignment with curriculum.
- The district will continue to offer access to our technology through community education and alternative education programs.

Goal 5: The District IS committed to:

Assessing student achievement relative to the integration of technology based on the METS and NETS as well as local curriculum.

CURRICULUM INTEGRATION

- The METS checklist will be used to review alignment of curriculum K-12. (2006/07)
- Professional development opportunities are provided to assist in technology integration for curriculum delivery and student activities. (yearly)
- Teachers will adjust instruction based on student assessments. (yearly)
- Curriculum will include activities that require students to consistently and appropriately use technology. (yearly)

STUDENT ACHIEVEMENT

- The K-8 and 9-12 METS standards will be used as guidelines for assessing the technology literacy of students. (2005/06)
- Students will be assessed against the current grade-level METS standards at the end of each school year with this information used to plan for instruction during the next school year. (yearly)
- Students will be expected to demonstrate the use of technology for assignment completion across the curriculum. (yearly)
- Eighth grade performance will be evaluated based on the NCLB Technology Literacy Assessment guidelines and necessary adjustments in K-8 curriculum will be made. (2005/06)
- Ninth-twelfth grade performance will be evaluated in specific courses that require technology competency. (yearly)

TECHNOLOGY DELIVERY

- Students have access to computer labs, presentation and production technologies, and the Internet in all buildings and classrooms. (yearly)
- District web page will provide easy access to available on-line resources. (yearly)
- Use Career Cruising to store portfolio information. (yearly)
- As emerging technologies become available, they will be evaluated for educational applications, and integrated as funding is available to do so. (yearly)

PARENTAL COMMUNICATIONS/COMMUNITY RELATIONS

- Parents are able to access student educational development plans on-line. A student's individual EDP outlines a variety of assessment.
- Career Cruising, Career Pathways, and a 4-year educational plan for students provide opportunities for communication between parents and school personnel.
- Webpage and on-line communication options, such as BlackBoard, will be utilized.

COLLABORATION

- Provide opportunities for staff to access Career Cruising information as they work with students on class scheduling and career preparation.
- Staff will work collaboratively with Tri-County ISD staff to create Pre and Post tests to direct instruction to meet the 8th grade METS.

Goals for Teachers and Students

Today, both staff and students have a wide range of technology accessible for class and individual use as needed for teaching and learning. Though integration of technology improves with each year, we are still in the process of fully integrating the use of technology. It is obvious that both staff and students are more productive when they use technology, however, the effectiveness of using technology on student achievement is an area that we will continue to evaluate.

Technology goals for district teachers and students include the ability to:

- use technology effectively to be productive members of society, now and in the future
- use technology to research and communicate effectively and efficiently
- apply appropriate technologies to critical thinking, creative expression, and decision making
- employ a systematic approach to technological solutions by using resources and processes to create, maintain and improve products, systems, and environments
- understand and apply ethical and legal standards in planning, using, and evaluating technology
- evaluate the societal and environmental impacts of technology to make informed civic, social, and economic decisions
- seamlessly integrate the use of technology in teaching and learning
- develop skills that will assist them in their quest for life-long learning

(These goals are based on the Michigan Technology Content Standards.)

Evaluation

The District Technology Committee (DTC) will provide oversight and on-going evaluation of the Technology Plan implementation. This committee has been and continues to be responsible for the development of policies, procedures, and practices that support and direct the implementation of the Plan's goals and activities. Through their leadership and input, Charlotte Schools has been able to intentionally move forward in the planning and implementation outlined in the current Technology Plan with Technology Bond funds, grants, and general fund dollars.

Evaluation includes but is not limited to:

- attention to detail when implementing technology purchases, procedures, and policies to evaluate their effectiveness
- requests for feed back from end users both formally (survey) and informally
- DTC member discussion on the effectiveness of new implementations based on personal experiences and input from staff and students
- identification of training needs and plans to meet those needs
- observation of teacher and student ability to integrate the use of new technologies in teaching and learning
- DTC member determination on whether implementation of Technology Plan components help students and teachers reach the major goals of the Technology Plan as well as the District goals for teachers and students
- K-12 technology curriculum alignment with state standards and benchmarks

TECHNOLOGY PLAN AND DISTRICT SCHOOL IMPROVEMENT COORDINATION

The District Technology Committee, including district staff and parents, have worked together to develop a technology plan that will continue to meet the needs stated in the District Mission, **“Working together with you to prepare all students to become successful citizens who can meet tomorrow’s challenges.”** In the new century, a necessity for success will be the knowledge and skills to deal with a variety of technologies. Our technology mission is not only aligned with our district mission, but dedicates our efforts to include our staff and students in becoming self-directed and collaborative learners. In addition, technology is a means to enable students to develop other essential academic skills and knowledge. The District Technology Committee is aware that it is imperative to develop a technology plan that will lay the foundation and serve as a guide in meeting the technological challenges of the future.

The District School Improvement Team meets periodically throughout the school year to coordinate the improvement efforts of the individual schools, monitor district goals, and provide training to members of the team. The District School Improvement Team and building school improvement teams develop curriculum, instructional practices, and assessment systems that are aligned to the Michigan Curriculum Framework: Content Standards and Benchmarks in all areas. Professional development opportunities are provided so that all educators will have the skills necessary to effectively instruct all students.

The district’s plan for improvement in core academic areas is as follows:

Goal #1:

Students will meet or exceed district standards and age/developmentally appropriate benchmarks for academic competency in English/ Language Arts.

Goal #2:

Students will meet or exceed district standards and age/developmentally appropriate benchmarks for academic competency in Mathematics.

Goal #3:

Students will meet or exceed district standards and age/developmentally appropriate benchmarks for academic competency in Science.

Goal #4:

Students will meet or exceed district standards and age/developmentally appropriate benchmarks for academic competency in Social Studies.

Goal #5:

Increase opportunities for parents to be involved in the partnership of educating students.

Goal #6:

Collaborate with staff, parents and community to engage in programs and activities focused toward improving the academic performance of all students and accelerating the improvement of low achieving groups

Additionally, each school’s individual Student Achievement Goals are developed based on the support they will provide to the district Student Achievement Goals.

INFRASTRUCTURE

Charlotte Public Schools finds itself in a unique position due to the opportunities provided by the infusion of over \$6 million in a Technology Bond beginning in the fall of 1999 and another in 2002.

The upgrades to our facilities included: adequate conditioned power to technology locations; lightning protection to the buildings; temperature and humidity control for head-end rooms and electronics cabinets; security for rooms housing infrastructure electronics; video security monitoring at certain locations; and handicap accessibility to technologies.

Today every building classroom and office has full access to a voice, video, and data infrastructure that provides district resources and the Internet with a 1gigabyte (ggb) backbone to each building over a fiber network. Each location has multiple data/voice connections available to accommodate growth and future needs. Each computer has the ability to connect to the infrastructure with 100 Megabyte (mgb) speeds.

A consistent Novell network is managed throughout the district by a certified CNE who manages access, file sharing, file back-up, content filtering, e-mail and Internet access. Currently the district uses the Microsoft Office Suite, Windows, and Firefox Browser as the district standards for productivity applications.

Every building has modern computer labs for student use as well as new multi-media computers and large-screen data monitors available in classrooms to support teaching and learning activities. Teachers use these computers for electronic attendance, grades and access to student demographic information as well as the myriad of resources provided on the district data network and the Internet. Local and network printers and copiers are provided in each building to make it convenient for staff and students to create and produce teaching resources and materials.

Each classroom and office has access to a telephone that is part of our own PBX, which includes a voice mail system.

Every building classroom has access to a district (and building) video network that allows for two-way broadcasting and reception of district broadcasts and local cable TV programming. In-district video conferencing has been used for teacher collaboration, staff development, and joint meetings between buildings. Out-of-district video conferencing is available at our local Intermediate School District. Classrooms have available VCR or VCR/DVD players and large-screen monitors (and building data projectors) so resources can be used when needed to support classroom-learning activities. Building video bulletins are operational providing up-to-the-minute information on activities, menus, and important information for staff and students in each building. This video system is also used to communicate a building message to visitors.

All K-12 classrooms have room amplification equipment that is used daily. Handheld devices are used in 8th-12th grade classrooms with success and with plans to extend access to appropriate K-7 students in the district. Alphasmart keyboards are used effectively in K-4 buildings to support keyboarding instruction and language arts activities.

Technology is used by Charlotte Public Schools to provide access for staff, students, and community members to a wide range of appropriate and/or relevant information.

Staff users on our district network have access (as needed) to:

- Student Demographic Information
- Electronic Gradebook
- Electronic Attendance
- Budget management information
- E-mail and the Internet (assigned by District System Administrator)
- Electronic database that supports curriculum
- Video streaming of curricular resources

Students have access (as needed) to:

- Electronic databases that support curriculum
- High School technology courses
- Internet resources
- Lansing Community College courses
- Michigan Virtual High School courses
- Microsoft Office Specialist Certification

Community members have access to a district web page (www.charlottenet.org) that includes:

- Athletic Events
- Community Education Scheduling
- Department, organization, and teacher web pages
- District calendar information
- District Special Events
- Electronic data bases
- Links to governmental agencies and educational resources
- Newsletters
- Performing Arts Center venues
- Staff e-mail and phone extensions

Parents have ADDITIONAL access to:

- Student information such as grading, attendance, scheduling, etc.
- Food service accounts
- Emergency parent contact information
- Immunization records

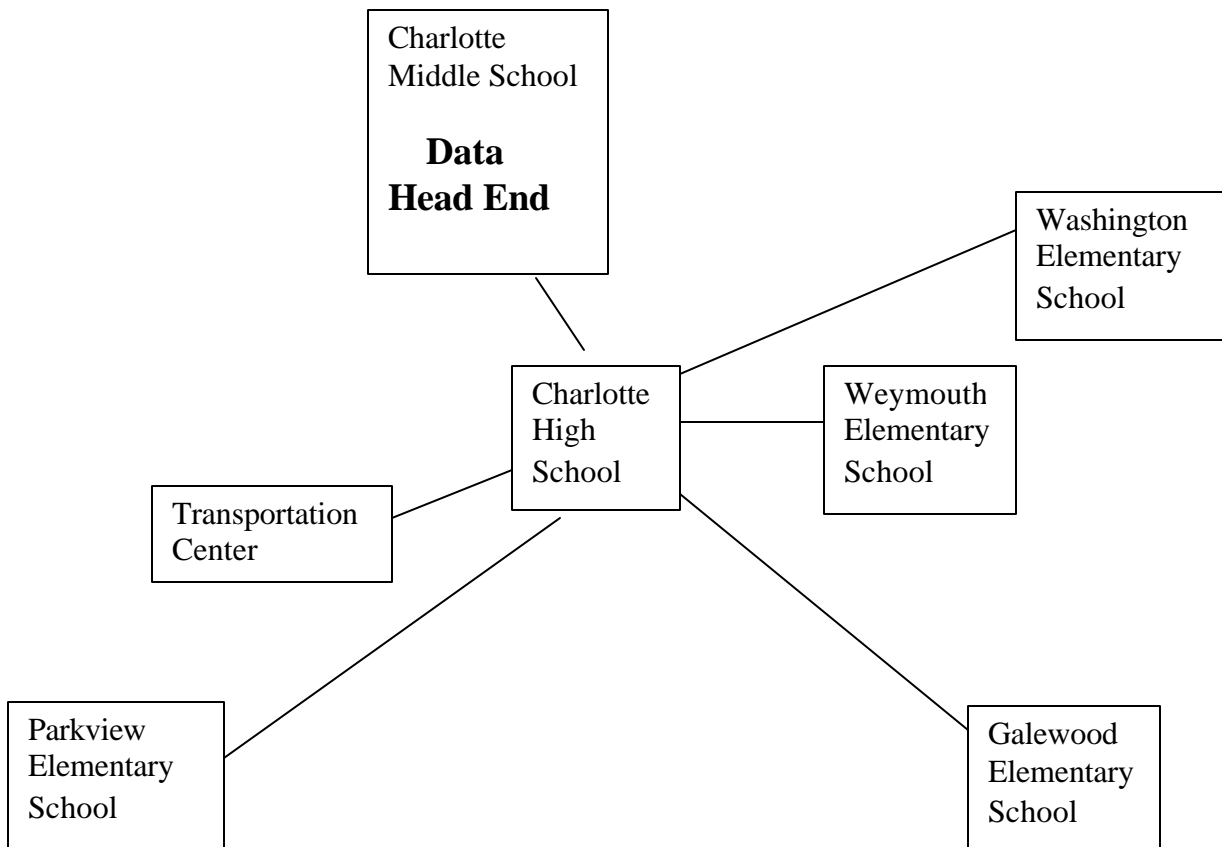
Charlotte Public Schools Data Infrastructure Network Design

May, 2006

The district data network head end is located in the Middle School. Each remote building connects at gigabit speed to the High School via fiber, which is jumpered over to the layer 3 core switch in the new Middle School. From the building's data cabinet, connections into each classroom, office, media center, modular classroom, and lab are made at 100mb.

The data network provides access to the Internet, administrative software (student demographic information, grading and attendance, curriculum support on-line resources, media center card catalog), and a district e-mail program. Internet access is filtered to comply with provisions of the Child Internet Protection Act.

Currently, we have a 6mgb connection to the Internet; however, as more curriculum support on-line resources become available, Internet bandwidth might need to be increased to accommodate its use.

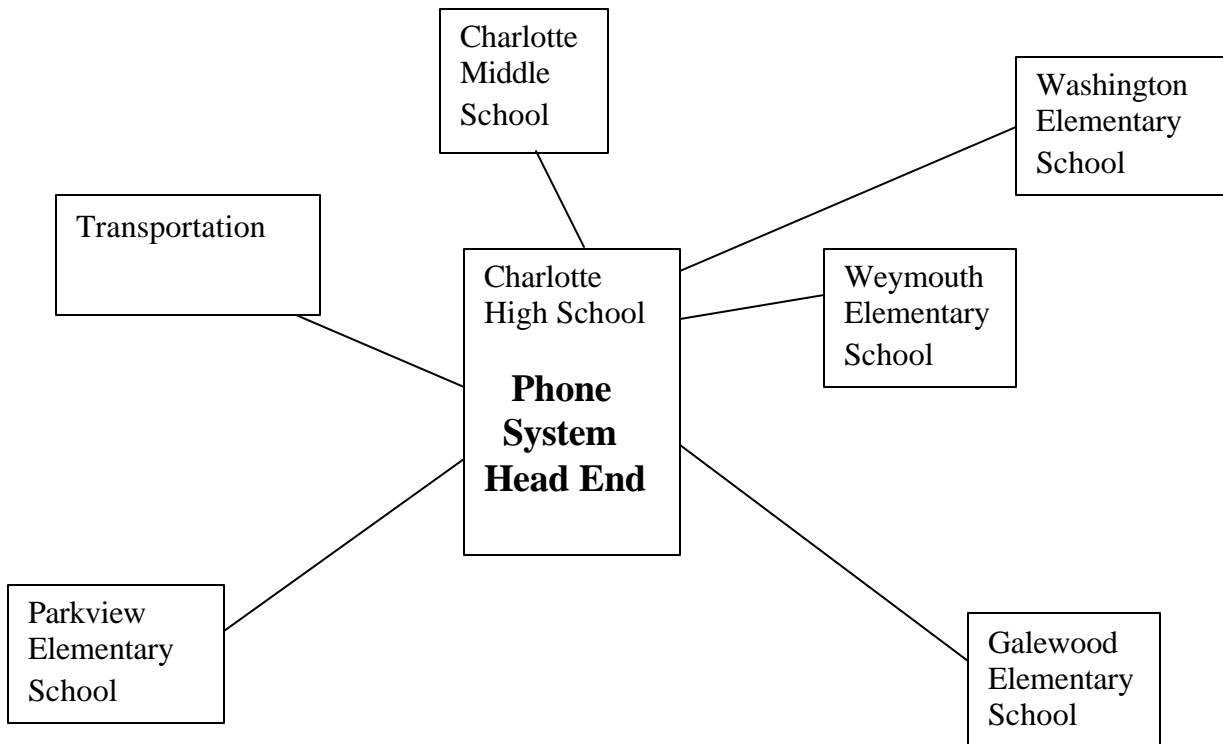


Phone/PBX Infrastructure Network Design

May 2006

The district phone PBX head end is located in the High School. Each remote building connects to the High School via fiber and contains a remote shelf which will allow emergency phone service at specific locations should fiber connectivity be lost for some reason. Phones are available in every office, classroom, media center, portables and lab.

The phone system includes voice mail for all district employees. Callers into the district will hear a brief list of options for service that enables a prompt response to callers. Published main numbers into office areas allows for customer friendly direct-inward-dialing.



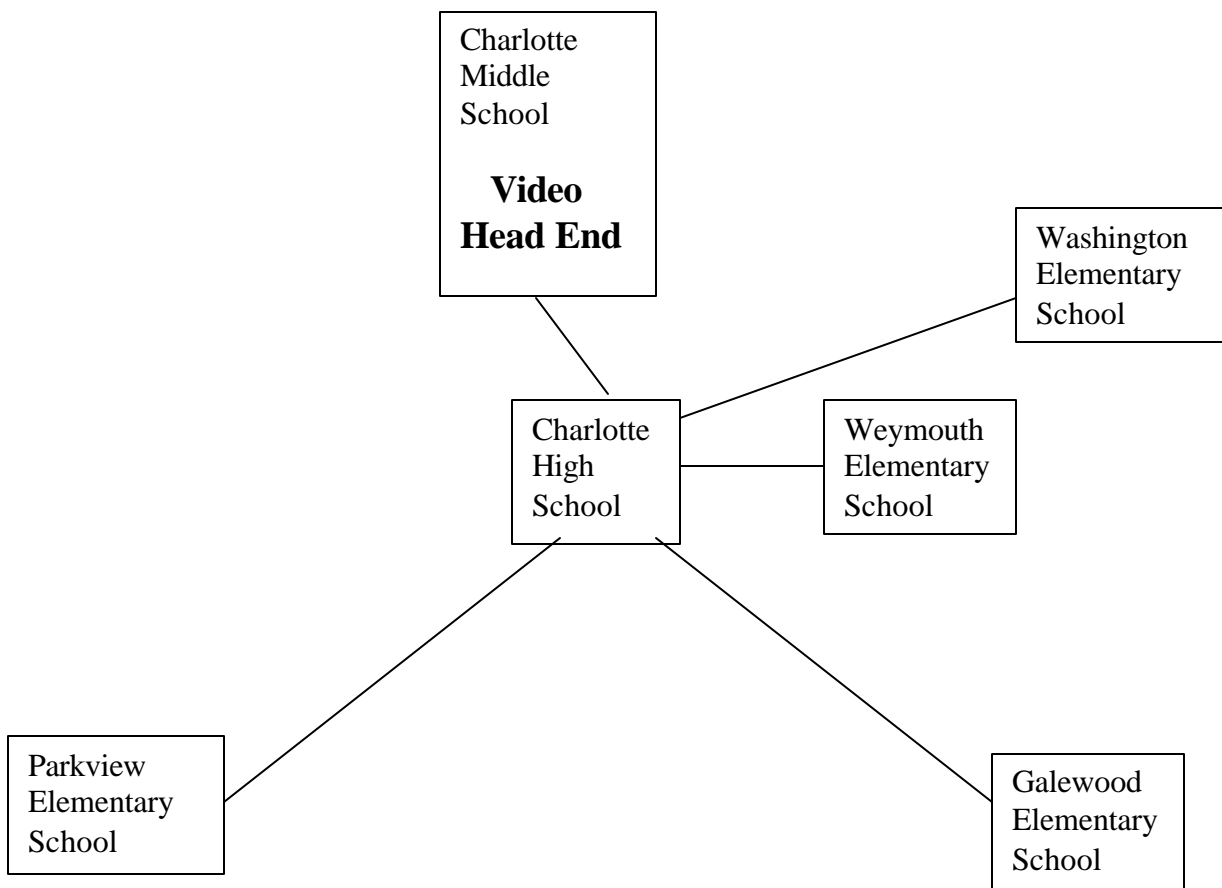
Video Infrastructure Network Design

May 2006

The district video head end is located in the Middle School. Each building connects to the High School via fiber and is jumpered to the Middle School for access to a complete two-way video broadcast system. Video connections are available in each building's administrative office, classroom, media center, and lab. Use of a specially designed and equipped "cam cart" allows video broadcasting from any video access location in the district. Each administrative office, classroom, media center and lab have a permanently located television/data monitor. Access to internal video broadcasts and building daily bulletin information is provided.

From the district head end in the Middle School, access to educational programming on cable television and district degenerated video broadcasts is provided *to* all offices, classrooms, media centers, portable classrooms and labs.

Access to satellite broadcasts, video conferences, and virtual field trips are available through our local Intermediate School District.



HARDWARE STANDARDS and SERVICES

The District Technology Committee categorized technology within the District as either Basic Technology or Advanced Technology.

Basic Technology is defined as the technology that is supplied to all classrooms (a classroom being defined as a place of instruction).

Advanced Technology is other technology that is made available in the building to further support instruction.

This list will be reviewed annually.

Basic Technology	Advanced Technology
Calculators (some rooms) Computer Printer Data/Video Monitor Listening Station (ELE) Multi-Media Computer Overhead Projector Projection Screen Room Amplification Telephone VCR/DVD Players <u>Services</u> District Video Network Educational Cable Access INTERNET access Network Access	Audio CD ROM Player CD Audio Player CD/DVD burners Classroom Performance System Data Projector Digital Camera Digital Scientific Probes Digital Video Cameras Digital Visualizers Fax Machine Graphing Calculator Laptops Laser Disc Player Laser Printer MIDI Interface Keyboard Network copier PDA's Scan Pen Scanner Smartboard / E-beam 35 mm Camera Video Cameras Video Editing Equipment Video Projector Video Security System

TECHNOLOGY CURRICULUM SOFTWARE STANDARDS

The District Technology Committee believes the following software standards need to be set for Charlotte Public Schools. The exact level may differ by the student, class, or the curriculum.

Skill Area	Status	Elementary School K-2	Elementary School 3-4	Middle School Beginner 5/6	Middle School 7/8	High School Beginner	High School Advanced	Staff/ Administration.
Word Processing	Current	Word	Word	Word	Word	Word	Word WordPerfect	Word
Spreadsheet	Current	Excel	Excel	Excel	Excel	Excel	Excel	Excel
Database	Current			Access	Access	Access	Access	Access
Operating system	Current	Windows	Windows	Windows	Windows	Windows	Windows	Windows
Desktop Publishing	Current	Publisher Word	Publisher Word	Publisher Word	Publisher Word	Publisher Word	PageMaker Publisher Word	Publisher Word
Multi-Media	Current				Movie Maker Premier Elements	Movie Maker	Pinnical Movie Maker Studio 8 DPS	DPS Moviemaker
Internet	Current	FireFox	FireFox	FireFox	FireFox	FireFox	FireFox	FireFox Internet Explorer
CAD (Computer Aided Design)	Current			MS Paint	MS Paint	MS Paint AutoCAD	MS Paint AutoCAD Autodesk 2006 Solidworks Softplan	MS Paint
Programming	Current			HTML	HTML Visual Basic	Visual Basic Front Page	FireFox HTML Editor Visual Basic (MIVU)	
E-Mail	Current			GroupWise Squirrel	GroupWise Squirrel	GroupWise Squirrel	GroupWise Squirrel	GroupWise
Presentation Software	Current	PowerPoint	PowerPoint	PowerPoint	PowerP oint	PowerPoint	PowerPoint	PowerPoint
Digital Editing	Current	KidPix	KidPix	Photo Shop Elements I Movie Adobe Premier Elements		Pinnacle Studio 8 Photo Shop Elements I Movie Adobe Premier Elements DPS		
Keyboarding	Current	Typin's Cool Type to Learn	Typin's Cool Type to Learn	Mycrotype Pro	Mycrotype Pro	Mycrotype Pro		

These software standards will be reviewed annually.

TECHNOLOGY LITERACY CURRICULUM

As members of a society that utilizes technology and information processing on a daily basis, it is the belief of the District Technology Committee that both staff and students must acquire the skills that allow them to:

- Operate technology independently
- Use technology for solving problems
- Contribute productively to society
- Understand the social implications of technology now and in the future

The Michigan Department of Education in its **Technology Content Standards and Benchmarks** has identified a technologically literate learner as a person who:

- Explores, evaluates, and uses technology to accomplish, independently and cooperatively, real-world tasks;
- Develops knowledge, ability, and responsibility in the use of resources, processes, and systems of technology;
- Acquires, organizes, analyzes, and presents information;
- Expands the range and effectiveness of communications skills;
- Solves problems, accomplishes tasks, and expresses individual creativity;
- Applies legal and ethical standards.

The District Technology Committee used the State Department of Education's **Technology Content Benchmarks and Standards** and the **National Educational Technology Standards (NETS)** to develop the 9-12th grade Technology Literacy Curriculum. This curriculum is intended to be fluid and learner appropriate, therefore, encouraging each learner to achieve continuous progress as he/she moves through the curriculum. A copy of this curriculum alignment is included (pgs.37-39).

The district has aligned the K-8 Technology Literacy Curriculum to the new Michigan Education Technology K-8 Standards (METS) and began implementing this newly aligned curriculum in the fall of 2005. A copy of this curriculum alignment is included on pages 29-36.

The K-12 Technology curriculum outlines specific outcomes based on the following concepts:

- Technological knowledge and skills for life-long learning
- Information technology in communication
- Appropriate technologies for problem solving
- Systematic approaches to creating a technological project or presentation
- Ethical and legal standards in the use of technology
- Societal and environmental impacts of technology in making informed civic, social, economic and career decisions.

The District Technology Committee developed a Staff Technology Literacy Rubric (Appendix 3; pg. 57-58) based on ISTE/NCATE Program Standards to assist staff as they continue to develop technology literacy. Administrators and teaching staff will use this to monitor personal growth each year.

Michigan Educational Technology Standards (METS) – K-8 Checklist by Grade Levels

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment (P = project based, M = multiple choice)	C = Technology Literacy Class							
Grades K through 2 – Technology Standards and Expectations – (by the end of Grade 2)				O	P	A	C	K	1	2
1. Basic Operations and Concepts.										
a. Students demonstrate a sound understanding of the nature and operation of technology systems.										
1. Students understand that people use many types of technologies in their daily lives (e.g., computers, cameras, audio/video players, phones, televisions).				X			X	X	X	X
2. Students identify common uses of technology found in daily life.				X				X	X	X
3. Students recognize, name, and label the major hardware components in a computer system (e.g., computer, monitor, keyboard, mouse, and printer).				X			X	X	X	X
4. Students identify the functions of the major hardware components in a computer system.				X			X	X	X	X
5. Students discuss the basic care of computer hardware and various media types (e.g., diskettes, CDs, DVDs, videotapes).				X			X	X	X	X
b. Students are proficient in the use of technology.										
1. Students use various age-appropriate technologies for gathering information (e.g., dictionaries, encyclopedias, audio/video players, phones, web resources).				X						X
2. Students use a variety of age-appropriate technologies for sharing information (e.g., drawing a picture, writing a story).				X	X			X	X	X
3. Students recognize the functions of basic file menu commands (e.g., new, open, close, save, print).				X				X	X	X
2. Social, ethical, and human issues.										
a. Students understand the ethical, cultural, and societal issues related to technology.										
1. Students identify common uses of information and communication technologies.				X						X
2. Students discuss advantages and disadvantages of using technology.				X						X
b. Students practice responsible use of technology systems, information, and software.										
1. Students recognize that using a password helps protect the privacy of information.				X						X
2. Students discuss scenarios describing acceptable and unacceptable uses of age-appropriate technology (e.g., computers, phones, 911, internet, email) at home or at school.				X						X
3. Students discuss the consequences of irresponsible uses of technology resources at home or at school.							X	X	X	X
c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.										
1. Students understand that technology is a tool to help them complete a task.				X				X	X	X
2. Students understand that technology is a source of information, learning and entertainment.				X				X	X	X
3. Students can identify places in the community where one can access technology.				X				X	X	X

Michigan Educational Technology Standards (METS) – K – 2 Checklist

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment (P = project based, M = multiple choice)	C = Technology Literacy Class								
			C	P	A	C	K	1	2		
3. Technology productivity tools.											
a. Students use technology tools to enhance learning, increase productivity, and promote creativity.											
1. Students know how to use a variety of productivity software (e.g., word processors, drawing tools, presentation software) to convey ideas and illustrate concepts.						X	X	X	X		
2. Students will be able to recognize the best type of productivity software to use for a certain age-appropriate tasks (e.g., word-processing, drawing, web browsing).					X				X		
b. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.											
1. Students are aware of how to work together when using technology tools (e.g., word processors, drawing tools, presentation software) to convey ideas or illustrate simple concepts relating to a specified project.	X	X							X		
4. Technology communications tools											
a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.											
1. Students will identify procedures for safely using basic telecommunication tools (e.g., e-mail, phones) with assistance from teacher, parents, or student partners.					X				X		
b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.											
1. Students know how to use age-appropriate media (e.g., presentation software, newsletters, word processors) to communicate ideas to classmates, families, and others.		X						X	X		
2. Students will know how to select media formats (e.g., text, graphics, photos, video), with assistance from teachers, parents, or student partners, to communicate and share ideas with classmates, families, and others.		X							X		
5. Technology research tools											
a. Students use technology to locate, evaluate, and collect information from a variety of sources.											
1. Students know how to recognize the Web browser and associate it with accessing resources on the internet.		X			X	X	X	X	X		
2. Students will use a variety of technology resources (e.g., CD-ROMs, DVDs, search engines, websites) to locate or collect information relating to a specific curricular topic with assistance from teachers, parents, or student partners,		X							X		
b. Students use technology tools to process data and report results.											
1. Students will interpret simple information from existing age-appropriate electronic databases (e.g., dictionaries, encyclopedias, spreadsheets) with assistance from teachers, parents, or student partners.	X							X	X		
c. Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.											
1. Students can provide a rationale for choosing one type of technology over another for completing a specific task.	X				X				X		
6. Technology problem-solving and decision-making tools											
a. Students use technology resources for solving problems and making informed decisions.											
1. Students discuss how to use technology resources (e.g., dictionaries, encyclopedias, search engines, websites) to solve age-appropriate problems.	X								X		
b. Students employ technology in the development of strategies for solving problems in the real world.											
1. Students identify ways that technology has been used to address real-world problems (personal/community).	X										

Michigan Educational Technology Standards (METS) – 3rd to 5th Checklist

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment (P = project based, M = multiple choice)	C = Technology Literacy Class			
Grades Three through Five – Technology Standards and Expectations – (by the end of Grade 5)						
	O	P	A	C	3	4
1. Basic Operations and Concepts.						
a. Students demonstrate a sound understanding of the nature and operation of technology systems.						
1. Students discuss ways technology has changed life at school and at home.	X			X	X	X
2. Students discuss ways technology has changed business and government over the years.	X			X		X
3. Students recognize and discuss the need for security applications (e.g., virus detection, spam defense, popup blockers, firewalls) to help protect information and to keep the system functioning properly.	X			X		X
b. Students are proficient in the use of technology.						
1. Students know how to use basic input/output devices and other peripherals (e.g., scanners, digital cameras, video projectors).	X	X	P	X	X	X
2. Students know proper keyboarding positions and touch-typing techniques.	X		P	X	X	X
3. Students manage and maintain files on a hard drive or the network.	X			X	X	X
4. Students demonstrate proper care in the use of hardware, software, peripherals, and storage media.	X			X	X	X
5. Students know how to exchange files with other students using technology (e.g., e-mail attachments, network file sharing, diskettes, flash drives).	X			X	X	X
6. Students identify which types of software can be used most effectively for different types of data, for different information needs, or for conveying results to different audiences.		X	M	X	X	X
7. Students identify search strategies for locating needed information on the internet.	X			X	X	X
2. Social, ethical, and human issues.						
a. Students understand the ethical, cultural, and societal issues related to technology.						
1. Students identify cultural and societal issues relating to technology.			M	X		X
2. Students discuss how information and communication technology supports collaboration, productivity, and lifelong learning.	X			X		X
3. Students discuss how various assistive technologies can benefit individuals with disabilities.	X			X		X
4. Students discuss the accuracy, relevance, appropriateness, and bias of electronic information sources.	X			X		X
b. Students practice responsible use of technology systems, information, and software.						
1. Students discuss scenarios describing acceptable and unacceptable uses of technology (e.g., computers, digital cameras, cell-phones, PDAs, wireless connectivity) and describe consequences of inappropriate use.	X		M	X		X
2. Students discuss basic issues regarding appropriate and inappropriate uses of technology (e.g., copyright, privacy, file sharing, spam, viruses, plagiarism) and related laws.	X		M	X		X
3. Students use age-appropriate citing of sources for electronic reports.		X	M	X		X
4. Students identify appropriate kinds of information that should be shared in public chat rooms.			M	X		X
5. Students identify safety precautions that should be taken while on-line.			M	X	X	X
c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.						
1. Students explore various technology resources that could assist them in pursuing personal goals.		X				X
2. Students identify technology resources and describe how those resources improve the ability to communicate, increase productive, or help them achieve personal goals.	X			X		X

Michigan Educational Technology Standards (METS) – 3rd to 5th Checklist

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment (P = project based, M = multiple choice)	C = Technology Literacy Class						
			O	P	A	C	3	4	
3. Technology productivity tools.									
a. Students use technology tools to enhance learning, increase productivity, and promote creativity.									
1.	Students know how to use menu options in applications to print, format, add multimedia features; open, save, manage files; and use various grammar tools (e.g., dictionary, thesaurus, spell-checker).		X		P	X	X	X	
2.	Students know how to insert various objects (e.g., photos, graphics, sound, video) into word-processing documents, presentations, or web documents.		X		P	X	X	X	
3.	Students use a variety of technology tools and applications to promote their creativity.		X	X	P	X	X	X	
4.	Students understand that existing (and future) technologies are the result of human creativity.		X			X		X	
b. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.									
1.	Students collaborate with classmates using a variety of technology tools to plan, organize, and create a group project.		X		P	X		X	
4. Technology communications tools									
a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.									
1.	Students use basic telecommunication tools (e.g., e-mail, WebQuests, IM, blogs, chat rooms, web conferencing) for collaborative projects with other students.		X			X		X	
b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.									
1.	Students use a variety of media and formats to create and edit products (e.g., presentations, newsletters, brochures, web pages) to communicate information and ideas to various audiences.			X	P	X	X	X	
2.	Students identify how different forms of media and formats may be used to share similar information, depending on the intended audience (e.g., presentations for classmates, newsletters for parents).		X			X		X	
5. Technology research tools									
a. Students use technology to locate, evaluate, and collect information from a variety of sources.									
1.	Students use Web search engines and built-in search functions of other various resources to locate information.		X		P	X	X	X	
2.	Students describe basic guidelines for determining the validity of information accessed from various sources (e.g., web site, dictionary, on-line newspaper, CD-ROM).		X			X	X	X	
b. Students use technology tools to process data and report results.									
1.	Students know how to independently use existing databases (e.g., library catalogs, electronic dictionaries, encyclopedias) to locate, sort, and interpret information on an assigned topic.		X			X	X	X	
2.	Students perform simple queries on existing databases and report results on an assigned topic.		X		P	X		X	
c. Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.									
1.	Students identify appropriate technology tools and resources by evaluating the accuracy, appropriateness, and bias of the resource.		X			X		X	
2.	Students compare and contrast the functions and capabilities of the word processor, database, and spreadsheet for gathering data, processing data, performing calculations, and reporting results.				M	X		X	

Michigan Educational Technology Standards (METS) – 3rd to 5th Checklist

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment (P = project based, M = multiple choice)	C = Technology Literacy Class					
			O	P	A	C	3	4
6. Technology problem-solving and decision-making tools								
a. Students use technology resources for solving problems and making informed decisions.								
1. Students use technology resources to access information that can assist them in making informed decisions about everyday matters (e.g., which movie to see, which product to purchase).			X			X		X
b. Students employ technology in the development of strategies for solving problems in the real world.								
1. Students use information and communication technology tools (e.g., calculators, probes, videos, DVDs, educational software) to collect, organize, and evaluate information to assist with solving real-life problems (personal or community).			X			X		X

Michigan Educational Technology Standards (METS) - 6th to 8th Checklist

O = Teacher Observation

P = Portfolio Evidence

A = Formal Assessment
(P = project based, M = multiple choice)

C = Technology Literacy Class

Grades Six through Eight – Technology Standards and Expectations – (by the end of Grade 8)

	O	P	A	C	5	6	7	8
1. Basic Operations and Concepts.								
a. Students demonstrate a sound understanding of the nature and operation of technology systems.								
1. Students understand that new technology tools can be developed to do what could not be done without the use of technology.			X					X
2. Students describe strategies for identifying, and preventing routine hardware and software problems that may occur during everyday technology use.	X		X		X	X	X	X
3. Students identify changes in hardware and software systems over time and discuss how these changes affected various groups (e.g., individual users, education, government, and businesses).			X	X				X
4. Students discuss common hardware and software difficulties and identify strategies for trouble-shooting and problem solving.	X		X	X			X	X
5. Students identify characteristics that suggest that the computer system hardware or software might need to be upgraded.				X				X
b. Students are proficient in the use of technology.								
1. Students use proper keyboarding posture, finger positions, and touch-typing techniques to improve accuracy, speed, and general efficiency in operating a computer.	X				X	X	X	X
2. Students use accurate technology terminology.			X		X	X	X	X
3. Students use a variety of technology tools (e.g., dictionary, thesaurus, grammar-checker, calculator) to maximize the accuracy of technology-produced products.	X		X				X	X
4. Students identify a variety of information storage devices (e.g., floppies, CDs, DVDs, flash drives, tapes) and provide a rationale for using a certain device for a specific purpose.	X		X			X	X	X
5. Students identify technology resources that assist with various consumer related activities (e.g., budgets, purchases, banking transactions, product descriptions).			X	X			X	X
6. Students can identify appropriate file formats for a variety of applications.			X	X				X
7. Students can use basic utility programs or built-in application functions to convert file formats.			X	X				X
2. Social, ethical, and human issues.								
a. Students understand the ethical, cultural, and societal issues related to technology.								
1. Students understand the potential risks and dangers associated with on-line communications.			X	X			X	X
2. Students identify security issues related to e-commerce.			X	X			X	X
3. Students describe possible consequences and costs related to unethical use of information and communication technologies.			X	X			X	X
4. Students discuss the societal impact of technology in the future.			X	X				X
b. Students practice responsible use of technology systems, information, and software.								
1. Students provide accurate citations when referencing information from outside sources in electronic reports.		X						X
2. Students discuss issues related to acceptable and responsible use of technology (e.g., privacy, security, copyright, plagiarism, spam, viruses, file-sharing).			X	X			X	X

Michigan Educational Technology Standards (METS) - 6th to 8th Checklist

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment (P = project based, M = multiple choice)	C = Technology Literacy Class								
				O	P	A	C	5	6	7	8
c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.											
1. Students use technology to identify and explore various occupations or careers.				X	X	X	X				X
2. Students discuss uses of technology (present and future) to support personal pursuits and lifelong learning.					X		X			X	X
3. Students identify uses of technology to support communication with peers, family, or school personnel.					X	X	X			X	X
3. Technology productivity tools.											
a. Students use technology tools to enhance learning, increase productivity, and promote creativity.											
1. Students apply common software features (e.g., thesaurus, formulas, charts, graphics, sounds) to enhance communication and to support creativity.				X	X	X	X		X	X	X
2. Students use a variety of resources, including the internet, to increase learning and productivity.				X	X	X	X	X	X	X	X
3. Students explore basic applications that promote creativity (e.g., graphics, presentation, photo-editing, programming, video-editing).				X	X	X	X	X	X	X	X
4. Students use available utilities for editing pictures, images, or charts.				X	X	X	X	X	X	X	X
b. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.											
1. Students use collaborative tools to design, develop, and enhance materials, publications, or presentations.				X	X		X		X	X	X
4. Technology communications tools											
a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.											
1. Students use a variety of telecommunication tools (e.g., e-mail, discussion groups, IM, chat rooms, blogs, video-conferences, web conferences) or other online resources to collaborate interactively with peers, experts, and other audiences.				X	X	X	X				
b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.											
1. Students create a project (e.g., presentation, web page, newsletter, information brochure) using a variety of media and formats (e.g., graphs, charts, audio, graphics, video) to present content information to an audience.					X		X			X	X
5. Technology research tools											
a. Students use technology to locate, evaluate, and collect information from a variety of sources.											
1. Students use a variety of Web search engines to locate information.				X		X	X			X	X
2. Students evaluate information from various online resources for accuracy, bias, appropriateness, and comprehensiveness.				X		X	X				X
3. Students can identify types of internet sites based on their domain names (e.g., edu, com, org, gov, au).				X		X	X				X
b. Students use technology tools to process data and report results.											
1. Students know how to create and populate a database.					X	X	X			X	X
2. Students can perform queries on existing databases.					X	X	X				X
3. Students know how to create and modify a simple database report.					X	X	X			X	X
c. Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.											
1. Students evaluate new technology tools and resources and determine the most appropriate tool to use for accomplishing a specific task.				X		X	X				

Michigan Educational Technology Standards (METS) – 6th to 8th Checklist

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment (P = project based, M = multiple choice)	C = Technology Literacy Class							
			O	P	A	C	5	6	7	8
6. Technology problem-solving and decision-making tools										
a. Students use technology resources for solving problems and making informed decisions.										
1. Students use database or spreadsheet information to make predictions, develop strategies, and evaluate decisions to assist them with solving a basic problem.				X	X	X			X	X
b. Students employ technology in the development of strategies for solving problems in the real world.										
1. Students describe the information and communication technology tools to use for collecting information from different sources, analyze their findings, and draw conclusions for addressing real-world problems.				X	X	X				X

Content Standards and Benchmarks

Once the 9-12th grade Michigan Educational Technology Standards (METS) are created, the DTC will redesign this Technology Literacy Curriculum to include the METS.

9-12th grade Technology Literacy Curriculum

Content Standard 1: All students will use and transfer technological knowledge and skills for life roles (family member, citizen, worker, consumer, lifelong learner).

- _____ Evaluate technological impacts on society.
- _____ Identify an emerging technology and forecast impacts of that technology on the family.
- _____ Participate in cooperative research and development projects which study consumer satisfaction of comparable products and services.
- _____ Participate in a real world context which uses a technological system for financial transfers.
- _____ Identify a social, civic, or economic issue and propose a technological solution.
- _____ Evaluate present and future job markets in technology related fields.
- _____ Demonstrate the proper care of technological systems and components.

Content Standard 2: All students will use technologies to input, retrieve, organize, manipulate, evaluate and communicate information.

- _____ Use technologies to demonstrate skills and a systematic solution to a problem(s) (voice, data, video, graphics, etc.).
- _____ Given a scenario, develop multiple options and present the solutions using a variety of technologies.
- _____ Retrieve, communicate, organize, evaluate, and manipulate information using a technological system (voice, data, video, graphics, etc.).
- _____ Evaluate information received through technologies.

Content Standard 3: All students will apply appropriate technologies to critical thinking, creative expression, and decision-making skills.

- _____ Apply technological procedures to overcome obstacles when implementing a solution to a problem.
- _____ Represent ideas using a combination of technologies aimed at reaching a diverse audience (voice, data, video, graphics, etc.).
- _____ Evaluate decisions using technology.
- _____ Use technologies to organize thoughts in a logical process (voice, data, video, graphics, etc.).

Content Standard 4: All students will employ a systematic approach to technological solutions by using resources and processes to create, maintain and improve products, systems, and environments.

- _____ Design and construct technological systems that exhibit continuous improvement.
- _____ Create working drawings from sketches to meet appropriate industrial standards.
- _____ Use measurements of dimensions and capacity as criteria to produce and evaluate technological solutions to problems.
- _____ Transfer measurements within appropriate tolerances for the purposes of producing and evaluating technological solutions to problems.
- _____ Use industrial tools, materials, equipment, and processes to design and produce products addressing given technological problems.
- _____ Investigate, analyze, and assess potential safety hazards, establish guidelines for safe behavior, and adhere to common safety practices while around or participating in the technological solution to a problem.
- _____ Apply a systematic approach to design solutions to technological problems using investigation, analysis and idea development, proposals, planning, making a prototype of the solution, testing and evaluation of the prototype, and self assessment.
- _____ Adapt solutions to the needs and values of individuals, groups, society, and environment when designing/redesigning problem solutions and creating a quality end product to meet the need.
- _____ Analyze resources and processes to choose the best combination to create a technological solution to a problem.

Content Standard 5: All students will apply ethical and legal standards in planning, using, and evaluating technology.

- _____ Analyze and interpret the impacts of differing ethical and legal standards in the age of global competitiveness.
- _____ Explain the associated rights and responsibilities of applying for legal documents (e.g., patents, copyrights).
- _____ Establish an action plan to solve a technology related problem and assess the plan applying ethical and legal principles.
- _____ Analyze current and emerging issues (e.g., ethical, social, environmental, legal, political, privacy) related to technology.
- _____ Identify and evaluate solutions for solving the ethical problems associated with using tools, equipment, materials, and processes in a technological problem.
- _____ Understand and practice the concept of lifelong learning about technology within an ethical/legal context.
- _____ Analyze the extent to which organizational purposes and actions are compatible with personal standards in the effective and appropriate use of technology.

Content Standard 6: All students will evaluate the societal and environmental impacts of technology and forecast alternative users and possible consequences to make informed civic, social, and economic decisions.

- _____ Evaluate current uses of technology on one's personal career and occupational goals.
- _____ Analyze and forecast the effects of technology on one's personal career and occupational goals.
- _____ Forecast the impact of technology on individuals in our future society, based on present trends.
- _____ Propose guidelines for appropriate and effective use of technology in our society as a whole or in a specific sector of society.
- _____ Formulate a position and support it about the roles of the government and private sector in creating and influencing policy concerning the use of technology.
- _____ Frame and support a position confirming that a technological application is safe and appropriate for individuals and society in general.
- _____ Identify and explain how environmental factors contribute to the development of technology and their impacts on society.
- _____ Assess the historical development of technology regarding the production of tools, equipment, and products in relationship to current societal and environmental needs.
- _____ Propose, research, and justify the introduction of new technologies.

TECHNICAL SUPPORT AND ASSISTANCE

The District Technology committee supports a plan to replace computers in offices and computer labs every three or four years, and media center computers and classroom computers every four to five years depending on funding. Technology Bond funding from 1999 allowed us to begin this process. Each year, approximately 200 computers and other technologies are purchased following a pre-determined replacement schedule that will be supported by general fund and grant dollars once bond funds are no longer available.

The district technology office budgets general fund dollars to support the following items: printer cartridges, maintenance and repairs on printers, replacement parts for repairs on computers, expendable technology supplies, software annual licensing fees and updates, new software purchases for labs and classrooms, bulbs, cables, and miscellaneous items.

District technology staff consists of the following:

- District Media/Technology Director
- Technology Services Coordinator
- District Software Support Staff
- Computer Management Work leader
- 5 – Technology support/Lab managers
- Computer Technician
- 2 -Technology Co-op Students
- Part-time Technology Office Secretary
- Certified Novell Engineer – Consultant as needed

Additionally, district Media staff including building level Media Specialists (3), Media Secretaries (2) and Media-Parapros (4), provide technical support for computers, other technologies, and audio-visual equipment as able. All Media and Technology staff participates in training and professional development opportunities provided locally and off-site in order to increase their technological skills.

This allows us to have technology support staff available in each building as well as at a district level in order to handle building and district level issues. Building technology support staff routinely does preventative maintenance on building computers and printers along with handling daily requests for service. Maintenance and cleaning is scheduled for all computers, printers, copiers, and audio-visual equipment on a yearly basis. Printer and copier repairs are contracted out to vendors that specialize in these services.

Requests for service are scheduled daily. Depending on the request, some are handled within the hour, within the day, or within the week. Though always having a log of requests to handle, we feel we are quite responsive to requests for service from all our users including administrators, teachers, support staff, and students with documentation used to track these requests. An on-line “Labs and Support” program is used to track requests for service, use of tech staff and lab sign-up.

A contract with a Certified Technology Consulting firm provides high-level network maintenance and security. Remote access to services is available to support necessary work during off-school hours. Daily monitoring of the district network by the technology staff assures attention to security issues. A number of preventative measures are in place, including a firewall and monitoring software with continual updates. A comprehensive data back-up system is used daily to assure safety and accuracy of important district records and files.

Wireless access to district networks and the Internet is available in the Middle and High School Media Center and Technology Office.

In addition to a computer at their desk, all administrators have access to laptops and PDAs to assist them with their daily work. Student schedules and demographic information is carried in their PDAs. Student pictures and regular updates to this information are also available.

An inventory system using a database and bar code label is used to track and record inventory information on all computers, other technologies, and audio-visual equipment when they arrive in the district. This database allows us to prepare reports and develop replacement schedules based on date of purchase or other pertinent information. A database of district software allows us to track licenses and installation locations. Implementation of a software program (ZenWorks) to deploy software, monitor inventory and provide remote desktop access is on-going.

District Technology office staff takes responsibility for management and coordination of the use of information technology resources, repairs, maintenance, budgeting, and technology support staff throughout the district. The district maintains an insurance policy to adequately cover materials and liability.

SUPPORTING RESOURCES

Manuals and Printed materials – The district maintains a professional library within the media centers to provide print and video support materials. District technology trainers provide handouts for staff and our high school Business and Information Technology Department has textbooks that support our software choices.

School Website – The district maintains a website that allows access to school information, community information and resources including a partnership with the Charlotte Community Library, and curricular support websites. (www.charlottenet.org)

Online Subscriptions – The district participates in AccessMichigan and our Regional Educational Media Center (REMC). Through these programs, the district receives ProQuest, Electric Library, SIRS Discoverer, InfoTrac, and Grolier Online. The district subscribes to World Book Online, United Streaming, Newsbank, and Classroom Connect. The district is open to the purchase of curriculum based software. Michigan Virtual High School course offerings have been made available to students since the fall of 2002.

Digital Content – On the district web page, there are locations for teachers to identify websites that support their curriculum for everyone to use. The district supports Microsoft Office Suite, Corel Software, AccessMichigan and REMC databases, a complete elementary level typing program, a wide variety of CD-ROM's, elementary software products that are aligned with State Standards and Benchmarks, and editing software. Building level media specialists and the District Technology Committee approve these programs. If the programs alter curriculum, approval of the K-12 Curriculum Committee is required.

Professional Development – Staff is exposed to and encouraged to use the following resources: Michigan Teacher Network, MiClimb, REMC after-school specials, the Regional Technology Academy and locally offered technology trainings. Online tutorials are also identified for district users.

Human Resources – Technical support staff with a wide-range of skills are available within the district to assist staff and students. Knowledgeable media staff in each building provides another level of support that helps everyone improve their technology literacy skills.

Administrative Software – Easily accessible student demographic software that includes attendance, discipline, scheduling, health records, grades, transcripts, special education, and food service modules assists teachers as they manage daily administrative tasks. An electronic grade book is also used in grades 4-12 that allows teachers to provide student progress reports as needed for communication with parents. K-3 teachers use a locally developed electronic report card.

Staff Intranet – A “Teacher Place” webpage contains important and useful documents from each of the following administrative offices: Human Resources, Business, Curriculum, Special Education, Technology and Maintenance.

On-Line Technology Service and Support – All staff use a locally developed on-line program to make requests for technical and maintenance support, schedule computer labs and media centers, and access HELP and training materials.

Policies Governing the use of Technology – District policies and guidelines are in place that governs the following issues for both students and staff:

- Acceptable Use and Access of Electronic Resources
- Web Publishing Guidelines
- Internet Use with Students/Class Guidelines
- Lab/Classroom Computer/Equipment/Internet Use Policy
- Computer Desktop Guidelines
- District Policy and Guidelines on Software Copyright
- Guidelines for Substitutes for Internet/Technology Use
- Computer Printing Guidelines
- Request for Technology Access Form

Full text for these policies and guidelines are located on the district web page at www.charlottenet.org.

COMMUNICATIONS/PUBLIC RELATIONS

Charlotte Public Schools Enhanced Communication Strategies

Charlotte Public Schools have a plethora of enhanced strategies for communicating with its staff, community and partner organizations on progress and plans for technology implementation and integration.

These methods of outreach are current and ongoing. As new methods are conceptualized and designed they will be implemented as time, resources and infrastructure permits.

Communication With Instructional Staff And Support Services

Charlotte Public Schools recognizes that communication with its staff on the progress and plans for technology implementation and integration will be vital for the success of ongoing technological enhancement, utilization and growth. Staff will receive updates on these subjects from a variety of sources including but not limited to:

- Charlotte Public Schools Communicator—bimonthly
- Charlotte Public Schools Board Briefs—monthly
- Charlotte Public Schools Tech Talk—monthly
- Charlotte Elementary School Newsletters — monthly
- Charlotte Middle School Newsletter — monthly
- Charlotte High School—CHS Update—semi-annual
- Quality Block & Professional development meetings—monthly
- Media Program —Newsletters and Flyers, monthly
- Staff Technology In-service sessions—weekly
- Charlotte Public Schools administrative memorandums—ad hoc, periodic and on as needed basis
- District Technology Committee Representation and reports—ad hoc, periodic and on as needed basis
- Charlotte Public Schools—web page updated daily
- Charlotte Public Schools—email system on an as needed individual basis
- City of Charlotte, Charlotte Public Schools—cable access channel—daily
- Media Status Reports—bimonthly
- District Video Broadcasting—as needed
- Live Announcements—daily
- Video scroll announcements—daily
- Teacher Place — Web site

Communication With The Community At-Large

Charlotte Public Schools Communicator—semi-annually
Charlotte Public Schools Board Briefs—monthly
Charlotte High School—CHS Update- monthly
PTO meetings at various Charlotte Public School buildings—monthly
Charlotte Public Schools Board of Education Meetings—monthly
Open Houses at various Charlotte Public School buildings—annually
Parent/teacher conferences at various Charlotte Public School buildings—semi-annually
Charlotte Public Schools—Use and Access Policy sessions—monthly
Charlotte Public Schools Weekly Activities—Charlotte Community Education
Charlotte Public Schools—web page updated daily
Charlotte Public Schools—e- mail system on an as-needed individual basis
City of Charlotte, Charlotte Public Schools—cable access channel—daily

Communication with Partner Organizations

Charlotte Area Networking for Development and Opportunities - CanDo!
Charlotte Business Sponsors
Charlotte Chamber of Commerce
City of Charlotte
Eaton Intermediate School District
Lansing Community College
Michigan State University
Regional Educational Media Centers—REMC 13

FUNDING AND BUDGET

In June of 1999, the Charlotte Community approved a \$6 million technology bond. These funds were targeted to build a technology infrastructure for voice, video and data and to provide all the necessary hardware for the end user. The four elementary schools and the high school received the benefit of these improvements and purchases. The new middle school, which opened in the fall of 2002, included all technologies that were available at the other district buildings. The district has begun to set aside general fund dollars on a yearly basis that will be available in the future for hardware replacement at the expected replacement rate of approximately 200 computers per year.

The Charlotte community passed another Bond in 2002 that supported renovations and additions to our high school complex and added an Aquatic complex to the new Middle School. This bond *included* the necessary budget for a technology infrastructure servicing these areas that *connected* to the infrastructure already in place in each building. Funds *were* also available to provide the needed technology hardware in each classroom and office comparable to what it *was* available in all other district classrooms and offices.

Charlotte Public Schools plans to upgrade all computer stations on an average 3-4 year replacement cycle for labs and offices, and 4-5 years for media centers and classrooms. Additional instructional technologies purchased over the course of the 1999 and 2002 bonds will continue to be supported and updated by district general fund dollars each year as curricular needs dictate their use.

A strong commitment to Professional Development has been demonstrated for *more than 10 years* and will continue to be a priority in the future. Weekly and summer technology training opportunities have been provided with both trainers and participants receiving professional development credit. Currently general fund dollars and Title II D funds are used to support our district professional development opportunities. The focus of professional development has been the integration of technology into the curriculum. General fund dollars have and will continue to be used with the hope that grant funds for professional development will be available to assist with this important component.

District Servers, Internet access, and supplies needed to support them will continue to be funded with general funds. A yearly budget to continue supporting this area at a high level is a district priority. Charlotte has had a long-standing contract with network technology consultants and will continue to use consultants for this service in the foreseeable future. Universal Service Funds (USF) have been used for phone and Internet services when funding was awarded. We will continue to seek USF reimbursement for all Internet, phone services and internal connections.

Charlotte Public Schools own its PBX district phone system and has warranty support through the 2007-08 school year. The annual expenses to support this system will be minimal over the next three years and will be covered by general fund dollars.

Providing printer access to all users is an area that is under constant scrutiny since access in each classroom is desirable yet costly. Network copier and printer options are available in each building. Currently printer supplies are provided as part of a district purchase and deployment plan. General fund dollars will support this effort on a yearly basis.

Software is a yearly expense that continues to rise as users become more able to use all the options available to them. With annual licensing fees rising, we anticipate that the cost of doing business will continue to increase each year. General fund dollars are the main source of funding for software and software upgrades.

Charlotte Schools has a strong commitment to providing technology support staff allowing everyone to concentrate on the productivity or instructional application planned. As a result, confidence and constant improvement to their technological skills is possible. Technology support staff is provided in each district building at least part-time every day. Their main duties include managing the building computer labs, trouble-shooting, and acting as a resource for all building staff as they use computers, software and other technologies. District level technology support staff provide network management, district software user support, Internet support, and a myriad of other technical and software support.

CHARLOTTE PUBLIC SCHOOLS TECHNOLOGY SUPPORT STAFF
1 - Media/Technology Director
1 - Technology Services Coordinator
1 - District Software Support
1 - Computer Technician
5 - Tech Support/Lab Managers
1 - Half-time Clerical
2 - Technology Co-op Students
1 - Novell Network Consultant

Administrative tasks such as attendance, grades, communication (e-mail and voice-mail), instructional material development and reproduction, food service accounting, and budget management are all done electronically. Web access to student information, school activities, instructional programming, technology policies, and many other district resources is available for staff, students, and parents on the district web page (www.charlottenet.org)

Charlotte Schools understands and appreciates the need to plan for maintenance, repair, supplies, and replacement of computers and other technologies. The District Technology Committee provides direction and articulates expectations for district technology staff regarding these issues. Yearly action plans and budgets are developed so that a comprehensive, intentional, and instructionally sound plan for support, upgrades, new purchases, and implementations is realistic and on going. Charlotte Schools finds itself in an enviable position that provides access to the best instructional and management technologies used in schools today.

PROJECTED FUNDING & TECHNOLOGY BUDGET

2006-2009

The Chart below outlines general fund expenditures that are planned for the next 4 years.
More specific plans are available from the District Technology Office.

GENERAL FUND DOLLARS	2006/07	2007/08	2008/09	2009/10
Secondary Computers	105,000	153,000	81,000	108,000
Elementary Computers	95,000	0	155,000	19,000
Administrative Computers	17,000	27,000	0	40,000
Additional Instructional Technology Hardware	33,000	83,000	32,000	103,000
Network Operational Expenses, Hardware Maintenance, Expendables, Internet, etc.	29,000	31,000	34,000	37,000
Telephone System Maintenance	15,000	15,000	15,000	TBD
**Telephone-POTS PRI's, Long Distance	38,000	40,000	43,000	45,000
**Internet Access	6,200	6,500	6,700	7,000
Printer Maintenance and Tech Supplies	28,000	31,000	34,000	37,000
Software expenses & upgrades	90,000	95,000	100,000	110,800
Professional Development	11,000	12,000	13,000	14,000
Network Tech Support Consultants	45,000	48,000	51,000	54,000
Tech Department & Support Personnel	340,000	374,000	410,000	450,000
Total General Fund Dollars	852,200	915,500	974,700	1,024,800

** Based on our Free and Reduced lunch figures, Charlotte Schools has received USF reimbursement of approximately 50% for telecommunications and Internet. The amounts listed in this budget reflect the anticipated USF reimbursement.

Charlotte Public Schools is committed to supporting, maintaining, and improving hardware, software, network infrastructure, telecommunications, and other services in support of instruction and student learning. Yearly adequate funding and long-range planning has allowed this to be our past practice and future expectation.

MONITORING AND EVALUATION

Technology Plan Evaluation

The impact of implementing technology must be assessed and measured on an ongoing basis. Board members, parents, administrators, staff and students must participate in this assessment as they see and understand the impact. The District Technology Committee will conduct an in-depth evaluation yearly as budget recommendations and action plans are developed for the coming school year. By periodically reviewing this Technology Plan document, the following areas will be evaluated:

1. The goals and objectives
2. Technology curriculum student outcomes
3. Use of technology as an instructional tool by teachers to help students meet the State Standards and Benchmarks
4. Use of technology as an administrative tool
5. Technology procurement/replacement program
6. Acceptable Use Policy and other district policies governing the use of technology

Success at reaching our Technology Goals will be monitored and measured in a number of ways on an on-going basis:

- Course Instructor generated assessments
- Annual 8th grade Technology Literacy Assessment
- Annual use of the Staff Technology Literacy Rubric
- Annual student technology skill evaluation (K-4)
- Annual student project-based skill evaluation (5-8)
- Successful course completion (9-12)
- Annual Media Program orientations, team teaching and individual assistance (K-12)

The district's progress in reaching its vision and goals will serve as the basis for making revisions in the district's long-range plan. Strategies for unmet goals include: credit recovery plans for high school students, review and remediation at the next grade level (K-8), and the individual development plans (IDPs) for staff and students.

COORDINATION OF RESOURCES

Charlotte Public Schools has a history of seeking out possible funding sources for the implementation of the district Technology long-range plan. The district was awarded three Technology Literacy Challenge Grants amounting to just over \$500,000. The district has applied for and received Universal Service Funds each year the funds have been available to help with telecommunications and Internet access costs.

Title II, Part A funds for Teacher/Principal Training paid for DIP (Discovering Intensive Phonics) training, release time for teachers to learn MI-Climb teacher resource and develop classroom webpages.

Title II, Part D funds were used to purchase a student management system for tracking and analyzing student achievement data. These funds have also paid for staff training in the use of this system. Title II, Part D funds continue to be used for Professional Development opportunities for staff. These funds along with General Fund dollars provide training opportunities for all district staff as needed.

Every summer, Charlotte participates as a training site for the Regional Technology Academy, providing staff with opportunities to improve their technical skills and create innovative lessons that integrate technology. District School Improvement monies help fund this project. This partnership will continue to offer locally, unique and valuable professional development opportunities for our staff.

Participation on the Eaton County Technology Directors Committee and the Eaton County Instructional Leadership Team allows Charlotte administrative staff to influence decision making, develop policies and practices that provide opportunities for our staff, and coordinate district plans and activities with county offerings.

Charlotte was a host site for the Michigan State University, College of Education, Educational Technology Certification Program, in order to provide a convenient opportunity for district staff to gain college credits and certification for instructional technology. Nine people completed this program thus developing a core of technologically savvy teachers on staff. Test Wiz training was also provided on-site through coordination with the Capital Area Math Science Center.

Participation in our Regional Educational Media Center (REMC 13) provides us access to Co-op purchasing for on-line resources, AV-equipment, and State of Michigan Bids for computer hardware, software, and supplies. Participation in the Merit Dial-Up Consortium for Internet service, in conjunction with Michigan State University, has also provided a great cost savings for the district.

Charlotte Schools will continue to seek funding sources that become available through grants and local, state, or federal programs. Coordination of district general funds, USF funding, grants and other programs will continue to be a priority for the district as we plan for new implementations and support current technologies.

Charlotte Public Schools

Acceptable Use Policy

Electronic Information Access and Use For Educational Purposes Policy

Charlotte Schools takes its responsibility for providing access to technology and electronic resources to students and staff seriously. The Board adopted Acceptable Use Policy (AUP) was created by the District Technology Committee and is reviewed regularly to maintain accuracy, appropriateness, and timeliness. It is used with both staff and students to outline policies, procedures, responsibilities, and expectations for technology use.

At the start of each school year, this Policy is provided to all school staff as part of a “Managing the Mandatories” program that is spearheaded by Central Office Administrators. Building Administrators review this and other important district policies with staff. Staff are required to have on file a “Declaration of Responsibility” indicating their willingness to abide by this AUP. It is the district’s desire to make sure that everyone knows their level of responsibility and that they model appropriate use for students.

Appendix 2 – CPS Lab/Classroom – Computers/Equipment/Internet Use Policy, was developed by the DTC to help educate all our K-12 students about their responsibilities and expectations for the use of technology and electronic resources. Starting with 5th graders, students are required to sign a “Declaration of Responsibility” which is kept on file in the “Office of the Principal”. This declaration allows students to have access to all the technologies available with adult supervision. It is the district’s belief that even with a firewall and content filtering, adult supervision is the only real way to make sure that we abide by all the regulations in the Child Internet Protection Act (CIPA.)

Charlotte Public Schools

Acceptable Use Policy

Electronic Information Access and Use For Educational Purposes Policy

Charlotte Public Schools encourages the use of electronic information technologies in its educational endeavors so that Users can access current and relevant resources, develop information management skills, communicate in a technologically-rich environment, and become responsible, self-directed, life-long learners.

In accordance with the Children's Internet Protection Act (CIPA), the District has implemented this policy, in part, to:

- A. promote the safe, ethical, responsible, and legal use of the Internet;
- B. support the effective use of the Internet for educational purposes;
- C. protect students against potential dangers in their use of the Internet; and
- D. ensure accountability.

As property of the Charlotte Public Schools, the district's electronic information technologies are intended for educational purposes and are neither a public access service nor a public forum. Only Charlotte Public Schools students, faculty, and staff who agree to the terms of this policy may be granted a network/charlottenet account.

Users have no expectation of privacy as to information or activity on the District's electronic information technologies. The District retains the right to monitor all use, including but not limited to personal e-mail and voice mail communications, computer files, databases, web logs, audit trails, or any other electronic transmissions accessed through the District's electronic information technologies.

The District's electronic information technologies are provided on an "as is, as available" basis and are provided without warranties (either express or implied) of any kind for any reason.

Policy Definitions

Equipment includes, but is not limited to computers, disk drives, printers, scanners, networks, video and audio recorders, cameras, photocopiers, phones, and other related electronic resources.

Software includes, but is not limited to computer software, print and non-print resources.

Networks include, but are not limited to all voice and data systems.

User includes anyone who is accessing or using District equipment, software, or networks.

Educational purposes include but are not limited to the use of the District's electronic information technologies for classroom activities, continuing education, professional or career development, and high-quality, educationally enriching personal research.

Harmful to minors means "any picture, image, graphic image file, or other visual depiction that (1) taken as a whole and with respect to minors, appeals to a prurient interest in nudity, sex, or excretion; (2) depicts, describes, or represents, in a patently offensive way with respect to what is suitable for minors, an actual or simulated sexual act or sexual contact, actual or simulated normal or perverted sexual acts, or a lewd exhibition of the genitals; and (3) taken as a whole, lacks serious literary, artistic political, or scientific value as to minors. 47 USC § 254(h) (7)

Inappropriate material includes but is not limited to materials that are harmful or inappropriate to minors, obscene, pornographic, profane, vulgar, harassing, threatening, defamatory, or otherwise prohibited by law. The determination of a materials' "appropriateness" is based on both the materials' content and intended use.

Vandalism is any attempt to harm, destroy, disrupt, or hack the operation of the District's electronic informational technologies, including but not limited to the creation or intentional receipt or transmission of computer viruses.

District Responsibilities

In managing the structure, hardware, and software that the Charlotte Public Schools use to allow access to electronic information technologies for educational purposes, the District has responsibilities to:

1. Provide resources to support the District's mission for electronic information technologies.
2. Purchase, maintain, and repair network equipment, hardware, and software.
3. Provide training and information on new technologies, software, and media as they are put into District use.
4. Develop and implement an Electronic Information Access and Use Policy, which defines the User's rights and responsibilities and complies with the Children's Internet Protection Act.
5. Develop and enforce use regulations at each network site.
6. Set quota limits for disk usage by Users of the District's servers.
7. Designate a System Administrator to manage the District's electronic information technologies and implement the Electronic Information Access and Use Policy.
8. Implement procedures to: monitor the online activities of minors; protect the safety and security of minors when using e-mail, chat rooms, and other forms of direct electronic communications; address unauthorized access including "hacking" and other unlawful online activities by minors; address unauthorized disclosure, use and dissemination of personal information about minors; restrict minors' access to material which is harmful to minors. [Note: These provisions are required by CIPA.]
9. Implement filtering and blocking software that has a technology protection measure which will protect against Internet access by adults to visual depictions that are obscene or child pornography and by minors to visual depictions that are obscene, child pornography, harmful to minors, or that the District determines is inappropriate for minors.
 - a. The determination of a material's "appropriateness" is based on both the material's content and intended use, not solely on the actions of the technology protection measure.
 - b. If a User believes that a technology protection measure has prevented access to otherwise appropriate material, the User may request the System Administrator to review the material and unblock the material consistent with District procedures.
 - c. The filtering software operates only within the District wide area network (WAN) or local area network (LAN), and does not operate through dial-up access.
10. Establish procedures for the System Administrator to disable or modify any technology protection measure under specified circumstances.
11. Exercise editorial control over all web pages created through the District's electronic information technologies, which will be subject to treatment as District-sponsored publications.

System Administrator Responsibilities

1. In managing the District's electronic information technologies and implementing the Electronic Information Access and Use Policy, the System Administrator shall make the final determination as to whether the User violated the District's Acceptable Use Policy.
2. To preserve network integrity or to investigate suspected unauthorized activity, the System Administrator may:
 - a. Review technology audit trails on a routine basis
 - b. View, modify, or remove a User's electronic mailbox
 - c. Monitor a User's online activities
 - d. Temporarily remove a User's account

3. Upon determination of unauthorized activity in violation of the District's Acceptable Use Policy, the System Administrator shall preserve evidence of the violation in digital and/or hard copy form and inform the designated administrator. Related to such a determination, the System Administrator may also;
 - a. Freeze or close a User's account
 - b. Delete files and messages
 - c. Recommend disciplinary consequences
4. In compliance with the Children's Internet Protection Act, the System Administrator may temporarily disable the District's technology protection measures only for the purpose of bona fide research or other lawful purpose by an authorized adult user.

Staff Responsibilities

1. Supervise student use of the District's electronic information technologies in a manner that is appropriate to the student's age and the circumstances of network use in compliance with the Children's Internet Protection Act.
2. Report any suspected violations, security system failures and/or difficulties to their building tech support staff or the System Administrator.
3. Model appropriate use of the District's electronic information technologies for educational endeavors.
4. Use the District's electronic information technologies on a regular basis for internal District communication and communication with parents.

Charlotte Public Schools will implement filtering software intended to block minors' access to materials that are obscene, child pornography, harmful to minors, or that the District determines to be inappropriate for minors. The District does not guarantee that filtering will control users access to such materials, or that users will not have access to such materials while using the District's information technologies. The filtering software operates only within the District wide area network (WAN) or local area network (LAN) and does not operate when using dial-up-access.

The District does not take responsibility for resources located or actions taken by the users that do not support the purposes of the School District.

It shall be the responsibility of all members of the District staff to supervise and monitor usage of the online computer network and access to the Internet in accordance with this policy and the Children's Internet Protection Act.

User Privileges

User has the privilege to:

1. Use the District's electronic information technologies for which they have received training to facilitate learning and enhance educational information exchange.
2. Access information from district networks, the Internet, and outside resources to retrieve information to facilitate learning and enhance educational information exchange.

User Responsibilities

Users have the responsibility to:

1. Use the District's electronic information technologies only to facilitate learning and enhance information exchange consistent with educational purposes.
2. Attend appropriate training sessions in the use and care of hardware, software, and network peripherals.
3. Seek instruction for the use of any available technology for which the User is not familiar.
4. Comply with the rules set forth in this policy, as well as the rules established for using hardware, software, labs, and networks.
5. Maintain the privacy of passwords, which shall not be published, shared, or otherwise disclosed.

6. Promptly notify a school official if you identify a possible security problem.
7. Access only the network account for which the User is authorized.
8. Use e-mail, chat, instant messaging, and other forms of two-way electronic communications only for educational purposes and only under the direct supervision of an adult.
9. Promptly notify a school employee about any electronic message you receive that is inappropriate or makes you feel uncomfortable.
10. Scan all electronic media for virus, dirt, damage, or other contamination before using in District systems.
11. Maintain the integrity of the electronic messaging systems by deleting files/messages which have exceeded their established limit, reporting any security violations, and making only those contacts which facilitate learning and enhance educational information exchange.
12. Keep inappropriate material from entering the district's network or from being reproduced or distributed in visual, digital, or written format.
13. Comply with all applicable state and federal laws, including copyright, trademark laws and applicable licensing agreements, in using the District's electronic information technologies.
14. Exercise caution when considering the purchase of goods and services over the Internet. The User, not the Charlotte Public Schools, accepts full responsibility for any financial obligations made or personal information provided while using the District's electronic information technologies.
15. Make financial restitution for unauthorized expenditures or for damages caused by inappropriate use or access.
16. Protect any personal equipment that is used to access Charlotte Public Schools information technologies.
17. Comply with the rules set forth in this policy, general District rules, and additional rules as established by the District, Board of Education policies, staff manuals, department procedures and student handbooks.

Users Prohibitions:

Users shall not:

1. Post or disclose personal identification information about yourself or others over the Internet, even if this information is solicited by a web site that solicits such information.
2. Use technology to advertise, offer, or provide goods or services for financial gain.
3. Use technology for political lobbying: although Users may communicate opinions with elected representatives.
4. Use District electronic information technologies to draft, send, or receive inappropriate materials or to engage in behavior which violates District policy, including the student code of conduct.
5. Vandalize District or other electronic information technologies.

Consequences of Inappropriate Behavior

Because access to the District's electronic informational technologies is a privilege and not a right, any User who does not comply with the Information Access and Use Policy will lose access privileges. Repeated or severe infractions may result in permanent termination of access privileges. Violators may also face additional disciplinary consequences consistent with district policy.

Challenges

Challenges to District information technologies and resources shall be made in writing and shall state the reasons for the challenge. A District appointed panel shall review the challenge and determine its appropriateness.

Appendix 2

CHARLOTTE PUBLIC SCHOOLS LAB/CLASSROOM

COMPUTERS/EQUIPMENT/INTERNET USE POLICY

The goal of using computers, the Internet, and/or any type of equipment, is to locate information for educational purposes. Students using computers and/or the Internet will increase their technological skills, communication skills and information gathering skills as they work with data and other people. Students using computers/Internet agree to follow these guidelines:

K-4 STUDENT	5-8 STUDENT	9-12 STUDENT
<ul style="list-style-type: none"> ▪ I will always follow my teacher's directions for using computers, equipment and the Internet. ▪ I will not use the Internet unless I have my teacher's permission. ▪ I will use computers and equipment with respect. ▪ I will follow the rules about using the Internet. ▪ I will ask for help when I need it. ▪ I will not give out my name, address or phone number on the Internet. ▪ I will tell my teacher if the computer or equipment is n't working. ▪ I will not copy or use someone else's files or software. 	<ul style="list-style-type: none"> ▪ I will always follow my teacher's directions for using computers, equipment and the Internet. ▪ I will not use the Internet unless I have my teacher's permission. ▪ I will use computers, equipment, and the Internet responsibly and respectfully. ▪ I will ask for help if I do not know how to use computers or equipment. ▪ I will not give out personal information on the Internet without my teacher's permission. ▪ I will follow the rules about using the Internet. ▪ I will tell my teacher if the computer or equipment is not working properly. ▪ I will not share my login, password or files with others. ▪ I will not copy or download files or software from the Internet or access someone else's files on school computers. ▪ I will make sure that the web sites I access and the language I use on the Internet is respectful, responsible, and educational. 	<ul style="list-style-type: none"> ▪ I will not use the Internet unless I have a CharlotteNet account and/or Instructor's permission. ▪ I will follow the Instructor's directions on the Internet and use it only for school purposes. ▪ I will not abuse any policies, procedures or computer hardware, software, and/or other technology equipment. ▪ I will not give out any personal information (<i>name, address, phone number</i>) about others or myself on the Internet without my Instructor's permission. ▪ I understand that the web sites I access and the language I use on the Internet must be respectful, responsible, and educational. If I have any doubts as to the appropriateness of a site, I will contact my Instructor <i>BEFORE</i> accessing that site. ▪ I will notify my Instructor immediately if a problem exists with hardware, software or Internet use. ▪ I will not copy, alter, install, download or give out files unless I get permission from my Instructor ▪ I understand class accounts are to be used <i>ONLY</i> during that class period with permission from my Instructor. <i>No other time is allowed unless special permission is granted and supervision is provided by the classroom teacher in charge.</i>

Appendix 3

Charlotte Public Schools
Staff Technology Literacy Rubric
Based on ISTE/NCATE Program Standards
May 24, 2005

STAFF NAME _____

ADMINISTRATOR _____

Date _____

Skill	Not Proficient	Score 1 - 3	Developing	Score 4 – 7	Proficient	Score 8 - 10	Score
Technology Operations and Concepts							
Demonstrates knowledge, skills, and understanding related to technology use.	<ul style="list-style-type: none"> Identifies computer hardware components Describes uses of computer and application programs Identifies GUI (graphical user interface) functions represented by menus, symbols, and icons 		<ul style="list-style-type: none"> Uses common peripheral devices Describes teacher and student uses for application software Identifies and applies GUI menu options to select, create, edit, manage and maintain files 		<ul style="list-style-type: none"> Connects and uses hardware components and peripherals Identifies, describes and solves simple technical problems and communicates more serious problems to tech staff Accesses and uses application programs, network-based curriculum resources, e-mail, utilities programs and maintains files in various locations 		
Planning and Designing Learning Environments and Experiences							
Demonstrates the ability to integrate technology use in instruction and activities.	<ul style="list-style-type: none"> Identifies basic technologies and uses them with students on occasion 		<ul style="list-style-type: none"> Uses appropriate technologies to enhance student performance and activities Uses on-line resources 		<ul style="list-style-type: none"> Plans and implements technology rich lessons and activities regularly Uses the Internet for educational enhancement 		
Identifies and locates technology resources to use in instruction.	<ul style="list-style-type: none"> Identifies technology resources that are available at CPS 		<ul style="list-style-type: none"> Demonstrates how to use electronic resources for instructional purposes 		<ul style="list-style-type: none"> Designs lessons that use authoritative resources and teaches students how to evaluate resources and web sites 		
Teaching, Learning, and the Curriculum							
Develops technology enhanced experiences that address content and technology standards.	<ul style="list-style-type: none"> Identifies technology integration ideas related to core subject area 		<ul style="list-style-type: none"> Aligns activities with curriculum standards and related technology resources 		<ul style="list-style-type: none"> Knows how to facilitate learning experiences that integrate both content area as well as technology standards 		
Uses technology to support learner-centered strategies that address the diverse needs of students.	<ul style="list-style-type: none"> Identifies and uses grade-level appropriate content resources with technology tools 		<ul style="list-style-type: none"> Selects and uses technology resources to facilitate high order thinking skills in students (Ex: Spreadsheets, Simulations, Web Resources) 		<ul style="list-style-type: none"> Applies strategies for using technology that are designed to facilitate higher order thinking in students, in relation to curriculum goals 		
Manages student learning activities in	<ul style="list-style-type: none"> Manages strategies for the use, care and sharing of 		<ul style="list-style-type: none"> Knows how to select and use technology resources to develop 		<ul style="list-style-type: none"> Applies technology-based strategies to use resources that develop both 		

Skill	Not Proficient	Score 1 - 3	Developing	Score 4 – 7	Proficient	Score 8 - 10	Score
technology rich environments.	technology resources with students		students' content area knowledge		content area knowledge and technology literacy		
Assessment and Evaluation							
Applies technology in assessing student learning of subject matter using a variety of assessment techniques.	<ul style="list-style-type: none"> Uses the basic features of the CPS provided electronic grade book for record keeping and grading 		<ul style="list-style-type: none"> Uses the advanced features of the CPS provided electronic grade book including posting of grades and assignments for family access 		<ul style="list-style-type: none"> Uses and analyses grading and record keeping on students to improve planning, instruction, and management 		
Productivity and Professional Practice							
Participates in Professional Development to increase their technology skills.	<ul style="list-style-type: none"> Attends only mandated technology trainings 		<ul style="list-style-type: none"> Attends two self-selected technology trainings each year that are provided by CPS 		<ul style="list-style-type: none"> Attends Regional Tech Academy trainings Attends trainings offered by Eaton ISD and REMC (or others) during the year 		
Applies technology to increase productivity.	<ul style="list-style-type: none"> Uses these basic MS Office applications: MS Word and PowerPoint 		<ul style="list-style-type: none"> Uses all applications and software packages available and applicable (MS Office, Skyward, GroupWise, etc.) 		<ul style="list-style-type: none"> Uses software beyond the basic CPS provided packages for productivity and materials development 		
Uses technology to communicate and collaborate with peers, parents, and the larger community.	<ul style="list-style-type: none"> Uses the phone system as a primary means of communication 		<ul style="list-style-type: none"> Uses e-mail and voice mail to communicate with parents 		<ul style="list-style-type: none"> Uses e-mail or voice mail to notify parents of homework assignments Has a web site with class information Uses the district provided grade book web option for posting grades. 		
Social, Ethical, Legal, and Human Issues							
Models and teaches legal and ethical practice related to technology use.	<ul style="list-style-type: none"> Identifies legal and ethical issues related to information technology 		<ul style="list-style-type: none"> Understands the content of the CPS Acceptable Use Policy and CPS technology use expectations 		<ul style="list-style-type: none"> Demonstrates an understanding of the importance of following the guidelines for acceptable use 		
Leadership and Vision							
Utilizes school technology facilities and resources to implement classroom instruction.	<ul style="list-style-type: none"> Uses technology and resources at a basic level within their classroom and with their students 		<ul style="list-style-type: none"> Assists colleagues in the use of available technology and resources for instruction 		<ul style="list-style-type: none"> Develops and demonstrates lessons and activities that consistently use the newest available technologies and resources 		
					TOTAL SCORE		

Technology Integration Time-Line – Appendix 4

2005/06	8th grade students will have their technology literacy formally assessed to meet NCLB requirements.
2005/06	8-12th grade students will begin to have opportunities for on-line course work.
2005/06	Video-on-demand (United Streaming) will be available to all staff & district buildings.
2006/07	NCA K-12 writing strategies will begin to include the use of technology.
Yearly	All buildings will have computer labs & classroom technologies to support teaching and learning.
Yearly	K-8 basic technology skills will be taught and evaluated by classroom teachers and in technology literacy classes.
Yearly	MOS Certification will be an option for high school level students as part of a required HS computer literacy course.
Yearly	Career Cruising (for middle and high school students) will be used to explore career pathways and design Educational Development Plans (EDPS).
Yearly	Access to technology, for both staff and students, will be evaluated and updated as necessary to support curriculum.
Yearly	The High School Vocational Education Curriculum will be reviewed and updated as necessary,
Yearly	Teacher evaluations will include recommendation for technology integration and a discussion about current uses.
Yearly	Assistive technology to support reading, writing and thinking will be available in all school buildings.
Yearly	The District web page will provide easy access to a available on-line resources.
Yearly	Emerging technologies will be evaluated for educational applications and integrated as funding is available to do so.

Professional Development Training Time-Line – Appendix 5

2006/07	NCA K-12 Critical Thinking & Problem Solving strategies will begin to include the use of technology.
Yearly	MEAP data will be evaluated and improvement strategies will include the use of technology where appropriate.
Yearly	8 th grade student performance in the NCLB Technology Literacy Assessment will be evaluated & professional development planned to assist staff improve instruction to increase student achievement.
Yearly	Media & Technology staff will assist teachers with technology integration.
Yearly	Numerous technology use and integration training options will be provided for staff to support curriculum and classroom practices.
Yearly	Teacher evaluations will include an assessment of individual technology skills and integration activities.
Yearly	Student assessments will be evaluated after course completion and the necessary adjustment will be made for staff training each semester.