

Three-Year Local School District/ Charter School
Technology Plan
July 1, 2007 through June 30, 2010

County: Morris

County Code: 1190

District/Charter School or Affiliation: East Hanover Township
Schools

District Code: 27

Grade Levels: K-8

Web Site: www.easthanoverschools.org

**Date Technology Plan approved by school board or
governing body**
March 26, 2007

**Is the district compliant with the Children's Internet
Protection Act (CIPA)? (Y/N)** Yes

**Please indicate below the person to contact for questions regarding
this technology plan:**

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Signature: _____ **Date:** _____

Superintendent/Lead Person Approval:

District Superintendent/Lead Person: Mr. Larry Santos

E-mail: lsantos@easthanoverschools.org

Phone: 973-887-2112 x 110

Signature: _____ **Date:** _____

County Coordinating Council Approval:

Lead Agent: (print) _____

Title: _____

E-mail: _____

Phone: _____

Signature: _____ **Date:** _____

Three-Year Local School District/ Charter School
Technology Plan Template
July 1, 2007 through June 30, 2010

Directions: Indicate in the *PAGE #* column of the template, the page number where the corresponding information can be found.

Page #	I. Stakeholders
12	<i>Provide the title, name and signature of each member of the technology planning committee. It is expected that there will be representation from at least nine of the positions indicated on the stakeholder sample table. Please provide an explanation if there is not a minimum of nine members on the technology planning committee.</i>
Page #	II. EXECUTIVE SUMMARY
13	<i>Describe the school district's or charter school's vision or mission statement</i>
III. TECHNOLOGY OVERVIEW	
Page #	A. Technology
15	<i>1. Provide an inventory of current technology networking and telecommunications equipment</i>

19	<p>2. Describe the technology inventory <u>needed to improve</u> student academic achievement through 2010 including, but not limited to:</p> <ul style="list-style-type: none"> • Technology equipment and networking capacity • Software used for curricular support and filtering • Technology maintenance policy and plans • Telecommunications services • Technical support • Facilities infrastructure • Other services
19	<p>3. Describe how the district integrates assistive technology devices into the network to accommodate student needs</p>
20	<p>4. Describe how the district's web site is <u>accessible to all</u> stakeholders (for example using Federal Accessibility Standards)</p>
20	<p>5. Describe the plan for replacing obsolete computers/technology and include the criteria for obsolescence.</p>
Page #	<p>B. Cyber Safety</p>
21	<p>1. List the filtering method(s) used. (NOTE: Be specific as this is a federal mandate.)</p>
21	<p>2. Identify the Acceptable Use Policies (AUP) used for students and staff and include a copy of the AUPs with the submission of this technology plan.</p>
22	<p>3. Explain how students are educated about online safety awareness.</p>
22	<p>4. Provide information on how parental resources regarding online safety are made available to parents.</p>
Page	<p>C. Needs Assessment</p>

#	
22-25	<p data-bbox="347 260 1511 478">1. Complete a needs assessment for educational technology in your school district or charter school. Begin by determining current status. Afterwards, determine the educational needs, prioritize the identified needs and establish necessary changes through goals and objectives.</p> <p data-bbox="415 533 1503 611">a. Evaluate <u>staff's current practice</u> in integrating technology across the curriculum.</p> <p data-bbox="415 625 1528 703">b. Provide a summary of teacher and library media personnel proficiency in the use of technology within the district.</p> <p data-bbox="415 718 1555 795">c. Determine the current educational environment and barriers by describing how:</p> <ul style="list-style-type: none"> <li data-bbox="500 810 1487 888">i. staff are assured access to technology to facilitate technology integration, <li data-bbox="500 903 1463 980">ii. often students have access to technology in their learning environment, <li data-bbox="500 995 1162 1029">iii. the needs of staff are evaluated, <li data-bbox="500 1043 1235 1077">iv. the needs of students are evaluated, <li data-bbox="500 1092 1487 1169">v. past professional development addressed the staff and students' needs for technology integration, <li data-bbox="500 1184 1503 1304">vi. past professional development for all <u>administrators</u> was provided to further the effective use of technology in the classroom or library media center, <li data-bbox="500 1318 1536 1478">vii. ongoing, sustained professional development was provided in 2006-2007 for all <u>staff</u> to further the effective use of technology in the classroom or library media center, <li data-bbox="500 1493 1471 1652">viii. ongoing, sustained professional development was provided in 2006-2007 for administrators to further support the effective use of technology in the classroom or library media center, <li data-bbox="500 1667 1341 1745">ix. supports were provided for staff other than professional development, <li data-bbox="500 1759 1536 1879">x. professional development needs and barriers related to using educational technology as part of instruction have been identified.

24-25	2. <i>Based on the answers given above, indicate the needs of the district to improve academic achievement for all students through the integration of technology.</i>
24-25	3. <i>Prioritize the identified needs</i>
IV. THREE-YEAR GOALS AND OBJECTIVES	
Page #	A. History
26-28	1. <i>List the goals from the 2004-07 plan.</i>
26-28	2. <i>Evaluate each goal from the previous plan, in one or two sentences, detailing each goal's success, or reasons for continuation, or issues preventing its success.</i>
26-28	3. <i>Describe any unexpected outcomes or benefits specifically linked to the educational technology in place.</i>
Page #	B. Goals and Objectives for 2007-2010
28-29	1. <i>List and support the goals that continue from the '04-'07 plan.</i>
28-29	2. <i>Modify goals or write new goals to meet the needs identified from the assessments. Goals for '07-'10 should support district need and align with the state plan.</i>
28-29	3. <i>Add to the goals the specific objectives for integrating technology to improve student academic achievement aligned with NJ Core Curriculum Content Standards (including software and other electronically delivered learning materials). Also, include a timeline for such integration and the corresponding measures (also known as indicators) that are evidence that the goals or objectives have been achieved.</i>

Page #	V. THREE-YEAR IMPLEMENTATION ACTIVITY TABLES (July 2007 – June 2010)
30-31	A. Describe the implementation strategies/activities that relate to the goals and objectives. Include in the description the timeline, person responsible and documentation (or evidence) that will prove the activity occurred.
30-31	B. Develop strategies to ensure that the technology plan addresses the use of technology, including assistive technology, to support the learning communities.
30-31	C. Provide details of the process for meeting the NCLB requirement that all students be technologically literate by the end of grade eight.
30-31	D. Identify specific telecommunications and information technologies and any other specific resources that are useful to reach the stated goal.
Page #	VI. FUNDING PLAN (July 2007 – June 2008)
32-34	A. Provide the anticipated costs for 2007-2008 and then indicate the projected funding for 2008-2010 of the technologies to be acquired and expenses such as hardware/software, digital curricula including NIMAS compliance, upgrades and other services including print media that will be needed to achieve the goals of this plan, including specific provisions for interoperability among components of such technologies to successfully achieve the goals of this plan.
32-34	B. Indicate the federal, state, local and other sources of funds used to help ensure that <u>students</u> have access to technology and ensure that <u>teachers</u> are prepared to integrate technology effectively into curricula and instruction
34	C. Attach a copy of the board approval for this technology plan. Be sure it includes the budget for the first year of this plan.

Page #	VII. PROFESSIONAL DEVELOPMENT
35	<p><i>A. Provide the name and title of the person responsible for coordinating the professional development activities noted in this plan.</i></p>
35-36	<p><i>B. Describe the planned professional development activities for teachers, administrators, and school library media personnel that include:</i></p> <ol style="list-style-type: none"> <i>1. How teachers and library media personnel have access to educational technology in their instructional areas (such as using desktops, mobile laptop and wireless units, PDAs).</i> <i>2. How administrators have access to technology in their workplace (such as using desktops, mobile laptop and wireless units, PDAs).</i> <i>3. How ongoing, sustained professional development for all administrators will be provided to further the effective use of technology in the classroom or library media center.</i> <i>4. How ongoing, sustained professional development for all staff will be provided to further the effective use of technology in the classroom or library media center.</i> <i>5. The professional development opportunities and resources that exist for technical staff.</i> <i>6. How professional development is provided to all staff on the application of assistive technologies to support all students in their learning.</i>

36	<p><i>C. Based on educators' proficiency and the identified needs for professional development, describe only the ongoing, sustained, high-quality professional development opportunities planned for 2007-2008 as it relates to the infusion of technology into the curricular process. Include a description of in-class support such as coaching that is used to ensure effective use of technology to improve learning. Also, include a description of the involvement of all partners associated with professional development for the district.</i></p>
36	<p><i>D. Identify the financial and time resources to keep staff current in learning about new technologies.</i></p>
36	<p><i>E. Project professional development activities that will continue to support identified needs through 2010, including all partners</i></p>

Page #	VIII. EVALUATION PLAN
37-38	<p><i>Describe the process and accountability measures that are used to regularly evaluate the extent to which goals, objectives, activities, resources and services are effective in</i></p> <ol style="list-style-type: none"> <i>1. integrating technology into curricula and instruction,</i> <i>2. enabling students to meet challenging state academic standards, and</i> <i>3. developing life-long learning skills.</i>



**East Hanover
Township
Schools**



**District
Technology Plan
2007-2010**

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I. Stakeholders

The following were members of the 2007-2010 3 Year Technology Plan Committee:

Superintendent	Mr. Larry Santos	_____
EHMS Principal	Mr. Robert Allen	_____
Director of Curriculum	Mr. Lawrence Mendelowitz	_____
Director of Technology	Ms. Kerry A. Quinn	_____
Teacher	Mrs. Monica Luoma	_____
Teacher	Mrs. Eve Caputo	_____
Special Ed. Teacher	Mrs. Debbi Wilson	_____
Media Specialist	Ms. Debra Dennis	_____
BOE Member	Mr. Sean Sullivan	_____
Parent	Mr. Frank Hoffman	_____
Parent	Mr. Brian Wilson	_____
Parent	Mr. Rich Santora	_____
Network Specialist	Mr. Dean Kadiric	_____

II. Executive Summary

District Mission Statement - The East Hanover School District, in partnership with the community, provides students with a strong foundation through a diversified curriculum that encompasses the educational and social skills necessary to be contributing members of society.

Strategic Planning – During the 2004-2005 school year, the district came together through the process of Strategic Planning. Through this process, we formulated what we feel are common beliefs held for our children.

District Beliefs

Children learn best when:

- In a safe and nurturing environment
- They are physically, emotionally, and mentally ready to learn
- They are presented with challenging, yet developmentally appropriate curriculum

We believe a good education:

- Enables each child to reach his/her maximum potential
- Involves school, community and family
- Develops an individual: academically, socially, culturally, physically and emotionally in order to be a constructive member of society

Areas of focus were developed through the Strategic Planning Process and technology was identified as a focus area. The following topics were chosen as goal areas:

- Research and implementation of district-wide electronic notification system
- Continue focus toward online options for newly purchased textbooks
- Increase of technology integration in classrooms
- Implementation of district-wide Student Information System
- Implementation of Individualized Education Program (IEP) Software
- Inclusion and focus of technology in district Professional Development Plan
- Increased availability of technology-related clubs for students
- Increased technology related workshop offerings for parents
- Reform district Technology Committee
- Implement one, solidly managed Directory Structure
- Implement Terminal Services
- Implement VoIP system

- Implement wireless network

The district has begun and plans to accomplish these goals that will be refined each year through the process. Included in this Technology Plan are strategies and action tables, which integrate our beliefs about education and the use of technology in our district.

Technology Curriculum Philosophy - The benchmarks and skills addressed in our technology curriculum are introduced and formally taught through Technology classes provided to our students in a lab by a technology teacher. However, for application of the skills to become meaningful and useful for students, they **must** be reinforced through practical application in the classroom. Unlike other disciplines, the skills taught through our technology classes can and **must** be infused through **every** other content area taught by classroom and special area teachers. This is best achieved through real world, problem-based learning. Technology teachers will support the infusion of these skills by keeping teachers informed about what is being taught and through suggestions for application to classroom themes and topics.

III. Technology Overview

A. Technology

Inventory

The East Hanover Township School district serves approximately 1200 students in grades Pre-School through 8. These students attend two elementary schools and one middle school. The district is funded through local, state and federal funding. As the district is in the GH factor group, it is not often eligible for grants based on need and receives no Title 1 funding. Over the past three years, the district has faced the limitation that S-1701 has placed on spending but has still placed a priority on improving access to technology district-wide in our administrative and instructional environments.

Network Summary

East Hanover operates a Local Area Network (LAN) in each school (Frank J. Smith, Central, and Middle School), and a Wide Area Network (WAN) interconnecting the schools and the Board Office.

Each school and the Board Office operate a Local Area Network (LAN). The network topology is 100 Mbps Ethernet. The network infrastructure consists of Dell PowerConnect switches running at 100 Mbps over Cat. 5e cable. New Cat. 5e cabling was recently installed (September 2006) and certified for all circuits in the Board Office. Cabling was recently upgraded (November 2006) at Frank J. Smith, Central School, and Middle School. All circuits were tested, and circuits that failed Cat. 5e cable certifications were replaced. Over the 2007-2010 technology cycle, East Hanover hopes to migrate to 1,000 Mbps (Gigabit) switches and transition to full Gigabit speed. The transition to Gigabit will occur through an evergreen approach, as PC's and servers are replaced as part of planned obsolescence, new hardware will be purchased with Gigabit network cards. Network switches will be transitioned to Gigabit switches with fiber optic backbones between wiring closets. Wireless access points will be installed at all schools and the Board office.

Each school and the Board Office operate Windows 2003 servers sharing a common domain. The network infrastructure was recently upgraded (August-October 2006) to collapse multiple domains to a single domain. Windows 2003 domain controllers were installed at Frank J. Smith, Central, and the Board Office to decrease vulnerability to WAN failure. Applications that were previously run across the wide area network were decentralized to improve response time, decrease WAN traffic, and allow the individual school networks to operate independently in the case of a WAN outage. Server uptimes/reliability were

enhanced by moving servers to more secure locations, stabilizing environmental factors, and replacing UPS batteries.

Frank J. Smith, Central School, and the Board Office each operate a Windows 2003 server. Each server operates as a domain controller, file/print server, and applications server.

Middle School operates a Windows 2003 domain controller, and a separate Windows 2003 file/print, and applications server. Email service is hosted using Microsoft Exchange 2003 on a server at the Middle School. The mail server will be replaced as part of the 2007-2010 technology cycles. An Ironport anti-spam/anti-virus filter is currently being used to provide spam filtering to the district e-mail.

East Hanover Schools operates a Wide Area Network (WAN) network provided by Cablevision. Each school and the Board Office has a cable modem circuit installed which provides a bandwidth of 5 Mbps download and 2 Mbps upload. Cablevision provides a Virtual Private Network (VPN) linking the schools and Board Office, and manages all routing and firewall services.

Elementary Schools

At each of the two elementary schools, classrooms are equipped with one Internet ready multi-media computer per classroom that accesses the World Wide Web. Several classrooms also have access to an older Power MAC for applications and Internet access. There is one computer lab of approximately 25 computers per building. The computers are imaged with age-appropriate software including Kidspiration, MS Office Suite, Bailey's Book House, Sammy's Science House and Kid Pix. Students receive computer instruction as part of a 6 day cycle for the school year in all grades K-5. The lab is available during open periods for teachers to schedule and bring their classes to utilize technology resources.

There are three centralized laser printers per building and some classrooms are equipped with individual inkjet printers that we are currently phasing out to improve efficiency of the network assistant as well as cost of ink. There is one high-quality centralized color laser printer per building that can be accessed for printing of final projects.

The Media Center in each school uses a networked on-line card catalogue and circulation system that is slated to be replaced in the upcoming school year. Both media centers have high-speed internet access, two multimedia computers for student access and one for media specialist access.

Middle School

At our district's middle school, classrooms are also equipped with one Internet ready multi-media computer per classroom that accesses the World Wide Web.

This is basically for teacher usage only, but can be accessed by students as appropriate. There is one permanent computer lab of approximately 25 computers in the building. The computers are imaged with age-appropriate software including Inspiration, and MS Office Suite. Sixth grade students receive computer instruction as part of a 36 day cycle. They are introduced to the MS Office Suite, Inspiration and the guidelines to our TechYES Program. This lab is also available during open periods for teachers to schedule and bring their classes to utilize technology resources. Additionally, teachers have the ability to utilize one of two Wireless Mobile Laptop Carts, which are signed out and brought to the classroom for student use.

There are two centralized laser printers in the building and some classrooms are equipped with individual inkjet printers that we are currently phasing out to improve efficiency of the network assistant as well as cost of ink. There is one high-quality centralized color laser printer that can be accessed for printing of final projects. The main photocopying machine in the building is networked to provide access to printing from teacher computers.

District

Through a grant awarded to our Special Services Department in 2003, district special education teachers receive a laptop, projector and mobile Mimio Board. These are shared amongst the staff but are assigned to the special education staff specifically. Additionally, the grant provided for many classrooms to be fashioned with surround sound systems to enhance learning for our special education students. The district supplemented funding provided by the grant in order to equip a greater number of classrooms with these systems.

Each teacher is assigned a district e-mail account and is responsible to adhere to Board of Education Policies in its use. Our district administrators use Microsoft Outlook and teachers use Microsoft Outlook Web Access via our Microsoft Exchange Server. All staff have access to their e-mail through any computer with access to the World Wide Web. A district-wide e-mail book is maintained with district and school level groups of users, as well as individual e-mail addresses. Spam filters have just been installed to block inappropriate e-mail and trap correspondence of a questionable nature.

The Media Center in each school uses a networked on-line card catalogue and circulation system that is slated to be replaced in the upcoming school year. Each media center has high-speed internet access, two multimedia computers for student access and one for media specialist access. During the 2007-2010 cycle, a new library application will be installed on a Windows 2003 server in the Middle School. The library application is compatible with the existing East Hanover network, and will communicate with the existing Windows Active Directory service. The server will host one database which will serve all three schools, Frank J. Smith, Central, and Middle. The database platform is SQLExpress. All locations including the remote locations will access the

application via Internet Explorer. The initial implementation will be intranet based, meaning it can be accessed from anywhere on the internal network, but not from the internet. After the initial implementation, internet access will be tested to determine the performance and security of the application over the internet. After the internet testing, a decision will be made whether or not the application will be opened for internet access.

Each school's main office and all administrative offices are connected to the district server for district/school level access to the student management system. Classroom computers are also networked to provide teacher level access to the system. Using remote access, administrators and secretaries use the district's financial application and District Special Education staff have remote and/or web access to Individualized Education Plan Software.

A complete inventory was completed in March of 2007. Table A represents the basic findings from that data collection. A complete inventory is attached as Appendix A.

Schools	Computers	Laptops	Computer Labs	Classrooms	Library/Media Centers	Administrative Offices
Frank J Smith School	73	6	22	38	2	5
Central School	65	6	27	22	2	8
East Hanover Middle School	112	37	27	39	3	6
District School Total	250	District student to computer ratio of 4.8 to 1				

Telecommunication

The telecommunication needs of the district are served by 2 different systems. At the Board of Education Office, a Merlin Legend System is in operation. The district schools have a Lucent Partner system. There are 10-15 phones per locations with 4-7 lines available for communication. This is an extremely old system that we are hoping to upgrade in the future.

Three-Year Technology Plan Inventory Table

Area of Need	2007-8	2008-9	2009-10
Technology Equipment	<ul style="list-style-type: none"> Laptops/projectors for teacher sign out 	<ul style="list-style-type: none"> Creation of several "Smart Classrooms" in each building New PCs for Middle School LAB New PCs/laptops for selected Central Office Staff/Administration 	<ul style="list-style-type: none"> Continued purchase of items for "Smart Classrooms" New PCs as necessary at each building
Software used for curricular support and filtering	<ul style="list-style-type: none"> Media Center Software Upgrade Iron Port Spam Filter Continued support for Curriculum Mapper Continued purchase of technology component in textbook series 	<ul style="list-style-type: none"> Media Center Software Upgrade Iron Port Spam Filter Continued support for Curriculum Mapper Continued purchase of technology component in textbook series MS Office 2007 Software Licensing Windows Vista Universal Installation 	<ul style="list-style-type: none"> Media Center Software Upgrade Iron Port Spam Filter Continued support for Curriculum Mapper Continued purchase of technology component in textbook series
Technical Support	<ul style="list-style-type: none"> Stipend for Technology Lead Teachers Fulltime (shared services?) In-house Network Administrator 	<ul style="list-style-type: none"> Stipend for Technology Lead Teachers Fulltime (shared services?) In-house Network Administrator 	<ul style="list-style-type: none"> Stipend for Technology Lead Teachers Fulltime (shared services?) In-house Network Administrator
Facilities – infrastructure including central telephone & security systems	<ul style="list-style-type: none"> Research phase for upgrade of District wide phone system Add security cameras to elementary schools and additional cameras at Middle 	<ul style="list-style-type: none"> Implement phase 1 of Telecommunications upgrade – new central office system/voice mail, central operator 	<ul style="list-style-type: none"> Continue implementation of telecommunications upgrade
Other Services	<ul style="list-style-type: none"> Research remote access possibilities 	<ul style="list-style-type: none"> Begin First phase of Remote Access – purchase of servers etc 	<ul style="list-style-type: none"> Continue Remote Access implementation

District Integration of Assistive Technology

The district has procured hardware and software to meet the needs of varying levels of students. Software titles including Kurzweil and Clicker use voice

recognition and other strategies to help students meet with success. Several computers have been equipped with touch screens for students that are unable to use a traditional keyboard. The Edmark Reading Series is used by several students. It combines proven instructional design with a rich, multi-sensory learning environment to support each student's learning style, guiding them to success.

Most classrooms are fashioned with surround sound systems. This form of technology allows all students preferential seating no matter where they are in the classroom. Also, as noted above, a grant awarded to our Special Services Department equipped many classrooms with Laptops, LCD Projectors, and Mimio Boards as additional tools for meeting the needs of the visual learner. Alpha Smarts are provided to students via their IEP to facilitate writing development.

Accessibility of Website

The East Hanover Township Schools website has been designed for ease of navigation and usability by all members of the public who wish to access it. Where illustrations/pictures are used, corresponding text is within proximity to the photo. The documents contained on the site are well organized and readable. Where tables are placed, clear column and row markers are used to identify data elements. The graphics used do not flicker or cause unnecessary distractions to the reader. Should the user choose to use speech recognition software, the text on the pages would be easily readable and understandable. There are no timed responses or pages that which require mandatory online completion.

Obsolescence Plan

East Hanover Schools follow a general four year replacement cycle for all computers. An evergreen approach is adopted within the four year cycle, meaning that approximately 25% of all computers will be replaced each year. Since the state of technology is in constant flux the general four year policy may be increased or decreased in any given year based upon the following obsolescence criteria.

East Hanover Schools defines an obsolete computer as a computer that fits within the criteria outlined below:

- A computer will be considered obsolete when it can no longer run required applications due to operating system prerequisites.
- A computer will be considered obsolete when it can no longer run required applications due to hardware restrictions.

- A computer will be considered obsolete when it can no longer run the required applications with reasonable performance.
- A computer will be considered obsolete when the highest revision of an Operating System it can run is no longer supported by the manufacturer.
- A computer will be considered obsolete when the cost of repairs exceeds 1/3 of its replacement cost.

B. Cyber Safety

Filtering Method

The East Hanover Township Schools filtering software is provided by our Internet provider, Cablevision via Sentian. It is managed filtering such that sites that are not blocked by the company can be blocked by the Director of Technology at a district level. Conversely, sites can be allowed for viewing provided that they have been thoroughly tested by the administrator/teacher requesting use of the particular site. Shortly, the district will begin use of Iron Port to filter our district e-mail for spam and viruses.

Acceptable Use Policies

All students and teachers are bound by Board of Education Policy 2361-ACCEPTABLE USE OF COMPUTER NETWORK/COMPUTERS AND RESOURCES.

“ The school district is in compliance with the Children’s Internet Protection Act and has installed technology protection measures for all computers in the school district, including computers in media centers/libraries, that block and/or filter visual depictions that are obscene as defined in Section 1460 of Title 18, United States Code; child pornography, as defined in Section 2256 of Title 18, United States Code; are harmful to minors including any pictures, images, graphic image file or other visual depiction that taken as a whole and with respect to minors, appeals to a prurient interest in nudity, sex, or excretion; or depicts, describes, or represents in a patently offensive way, with respect to what is suitable for minors, sexual acts or conduct; or taken as a whole, lacks serious literary, artistic, political, or scientific value as to minors.

The school district will certify on an annual basis, that the schools, including media centers/libraries, in the district are in compliance with the Children’s Internet Protection Act and the school district enforces the requirements of this policy.”

All students from grades K-8 are required to read and sign an Acceptable Use Policy (AUP) at the start of each school year. The AUP is explained to the students by the Technology Teachers at each building and then disseminated to the students. Returning the AUP is mandatory before being given access to using any of the district’s technology resources. (Appendix B).

Online Safety Awareness for Students

Online safety awareness is part of the Technology Curriculum beginning in Kindergarten. It is the Technology Teacher's responsibility to review the importance of online safety with all classes. Resources have been provided to the teacher such as [NetSmartz Kids](#).

In grade 6, students receive Technology instruction in a 36 day cycle, where they are introduced to our Technology Competency Program, TechYES. A portion of this program is direct instruction in Cyber Safety.

Finally, in Grade 8 students attend a presentation by the Morris County Prosecutors Department focusing on Online Safety.

Parent Resources and Accessibility to Online Safety Awareness

Parents are required to read, review and sign the student AUP forms at the start of each school year with their child. Additionally, each year the Morris County Prosecutors Department provides a workshop for parents on the dangers of the Internet and how to keep children safe. The program is offered twice at different times during the day to accommodate all schedules.

Through our Middle School School-Based Planning Team, we have provided a roundtable discussion and education on a variety of Online Monitoring Tools.

C. Needs Assessment

Current Staff Practice

Needs of the East Hanover Township School District staff are surveyed by the District Professional Development Committee. The 2005-2006 survey results indicated that teachers requested additional training in:

- Inspiration
- Kidspiration
- MS Suite Applications
- Internet Activities
- Web Site Development
- Use of MimioBoards

The results from the 2006-2007 survey revealed a lesser emphasis on technology, but still a request for training in:

- Web Design

Current Staff Proficiency

Results of the 2006-2007 District Technology Proficiency Survey describe the levels of proficiency as well as comfort levels. Survey Results are found in Appendix C.

Staff and Student Access to Technology

All East Hanover School District Staff have access to computers in individual classrooms. These computers are multimedia in nature and are internet accessible. All computers are either connected directly to or networked to a printer (mono, and color). Additionally, staffs at the elementary schools are afforded access to a lab of computers. They can use computers there alone or with a class. Elementary teachers are present during the technology classes to support the technology teacher, learn new skills and continue the instruction with classes at times other than during computer class. Computers are available before, during and after the school day.

Elementary school students (K-5) receive formal computer instruction as part of a 6 day cycle for the school year in all grades K-5. During this time a technology teacher provides instruction with the support of the classroom teacher. The lab is available during open periods for teachers to schedule and bring their classes to utilize technology resources.

On the Middle School level, sixth grade students receive computer during a 36 day cycle. They are introduced to the MS Office Suite, Inspiration and the guidelines to our TechYES Program. This lab is also available during open periods for teachers to schedule and bring their classes to utilize technology resources. Additionally, teachers have the ability to sign out one of two Wireless Mobile Laptop Carts, which are signed out and brought to the classroom for student use. This enables teachers and students to integrate technology into the content areas.

Staff/Student Needs

The needs of staff are evaluated in several ways: a survey produced by our District Professional Development Committee, administrator observations, teacher portfolio contents, and teacher request. The District Director of Technology provides appropriate support and training in software packages that are commonly used in schools. Student needs are determined based on the curriculum and the NETS for Students.

Professional Development – Staff and Administration

The following programs were provided for all staff and administrators. Programs marked with an asterisk were given to staff and administration separately to meet individual group needs.

In-House Workshops

-  Integrating Technology
-  PowerPoint
-  Using a Digital Camera

- ✚ United Streaming
- ✚ Online Textbook usage
- ✚ Student Database – STI*
- ✚ Curriculum Mapper*
- ✚ Special Education IEP – Tracker*

Monthly Munch and Learn Sessions

- ✚ E-mail, Word, Excel, PowerPoint, Kidspiration, Inspiration, Digital Cameras, Publisher, Internet searches and more!

Membership in Morris County ETTC

Individual Sessions with District Director of Technology*

Technical Support from District Network Assistant

District Articulation Meetings

Outside Workshops* - examples

- ✚ The Best of the Best – Web Sites that Enhance Instruction – BER
- ✚ Cyber Cheats and Plagiarism – Highlands Regional Library Consortium
- ✚ Smart Boards – NJECC
- ✚ Accounting Software Training – Systems 3000
- ✚ NJ Elite
- ✚ NJ Educational Media Association Fall conference
- ✚ NJECC Monthly Meetings
- ✚ Basics of I Movie – NJECC
- ✚ Technology Correlation with Academic Curriculum

Barriers

Barriers to using Educational technology have been identified, again through the Professional Development Committee. The biggest challenge that we face is the time to provide adequate Professional Development on a wide variety of topics, just one of which is Technology. Finding a qualified and reliable Network Specialist has proven to be a challenge for the district. In the last three years we have had two on-site specialists and one outside consultant. Availability to a Network Specialist with vision for the future of the district has been a barrier to moving forward at times. Additionally, with only one inexperienced, full-time on-site person responsible for maintaining all technology equipment, there isn't always the availability or know how to address all issues. The position of Director of Technology is approximately a .3 position, as the other .7 is fulfilled as Assistant Principal of the Middle School. This does not allow for a consistent presence at the elementary schools for teacher support and motivation.

Finally, funding staff and technology needs is always a challenge. In a GH factor group district, we are not eligible for many need based grants. We do not have Title 1 funding for this reason as well.

Items Needed to Improve Academic Achievement through Technology

Integration

The below items were determined to be of utmost importance in continuing a focus on technology integration and academic success:

- Continued Professional Development – from both in and outside sources

- Technical and Educational Support for teachers in Building
- Increased usage and availability of Smartboard/laptop/projectors for teachers
- Locating software packages and/or textbook series that are designed to increase reading/mathematics success
- Remote Access to applications from home

IV. Three Year Goals and Objectives

A. History

The following goals and objectives are taken from the 2004-2007 Technology Plan. Below each is a brief update on the progress made to date.

Goal Statement One – Learning for the 21st Century

All students and teachers shall have equal equity of access to the technological resources of each school and shall utilize the resources to:

- Achieve the NJCCCS
- Enhance the learning in all areas of the curriculum
- Research, evaluate, and process information
- Expand communication and learning beyond the physical boundaries of the district
- Develop the critical thinking and problem-solving skills needed for life-long learning in the 21st century

Objective 1.1 – Standardize our current Computer/Technology curriculum across the district developing age-appropriate activities and learning opportunities

Objective 1.2 – Integrate software and CD-ROM applications across the district in order to increase student achievement of the NJCCCS

Objective 1.3 – Provide the library/media staff with the means to enhance learning across the curriculum through additions to print media, CD-ROMs and software applications, and online resources

Update

During the 204-2005 school year the K-5 Technology curriculum was re-designed by the Director of Technology and the building Technology Teachers. The re-design was based on the National Educational Technology Standards for Students (NETS). There is a copy of the guide in all schools for teacher reference. A sample is attached to this document as Appendix B.

During the duration of the former plan, the district purchased several software programs and subscriptions that were introduced to improve student achievement. Kidspiration, Inspiration, United Streaming, Brain POP are 4 examples of programs purchased for student use.

The District employed the services of Curriculum Mapper and uses their application to map curriculum at the K-5 level. Additionally, consideration is given to the technology components in the purchase of new textbooks. Thus far at the Middle School Language Arts, Science, and social Studies all include very complex online support materials.

All school media centers will be equipped with new online record keeping during the 2007-2008 school year. The research process was well underway throughout 2004-2006.

Goal Statement Two – Adequacy of Educational Resources

Technology Resources of the district shall be equally shared among all students and staff as a resource tool for instructional purposes, as needed. The district shall strive to provide hardware, software, and systems that:

- Allow ease of use of communications
- Provide access to appropriate county, state, national, and international distance learning resources
- Are age-appropriate, compatible, and easy to maintain
- Are supported by adequate technological expertise and financial resources

Objective 2.1 – Technology will continue to develop and provide new and expanded opportunities to enhance learning. Hardware should be replaced or upgraded when the need for more sophisticated equipment is required for specific instructional or administrative use. Technology replaced at one location can serve useful purposes in another setting.

Objective 2.2 – Technology is not limited to that which can be housed in a particular setting. Consideration must be given to local area networks that connect classrooms with other classrooms, the library, administrative offices, and the community.

Objective 2.3 – New curriculum guides will include technological competencies in order to meet or exceed the NJCCCS and the NETS for students.

At the onset of the 2004-2005 school year, classroom and lab computers in the 2 elementary schools were replaced thus bringing those two buildings up to date and running on a consistent PC Platform. Older computers that were still functional remain in the classroom to enhance the learning there. Additional laser printers were placed at centralized location for teacher use.

During the 2005-2006 school year, one of two computer labs at the middle school was dismantled, those computers were relocated to individual classrooms and replaced obsolete computers. Additionally, during the 2005-2006 and 2006-2007 school years 37 laptops were purchased and placed in mobile laptop carts that are signed out by staff to bring into the classroom.

During the 2005-2006 school year all 4 district sites were connected via VPNs provided by Cablevision, thus allowing operability between sites. This also allowed for the installation of a district-wide Student Database, increasing communication and efficiency across the board.

In 2006, a new server was purchased to house our student database. As the elementary schools came on board with its use for lesson planning, it became

necessary to purchase two additional servers to house the school level data at each site.

Goal Statement Three – Staff Development

The development of teacher skills in the use and application of technology is essential to effectively integrate the District's technological resources in curriculum areas. The District shall provide opportunities for staff training and application of existing and emerging technologies. The District shall work collaboratively with other organizations and agencies to provide staff development opportunities in the following areas:

- The East Hanover Township School District views continuous staff development as an essential component in the development of successful student achievement. The District commits substantial resources in its annual budget for staff development. Training takes many forms including school year and summer workshops, graduate course, outside workshops and programs, and release time.
- A survey of staff needs, curriculum development opportunities and state mandates are regularly used to identify staff development needs. An updated technological competency survey is administered each Fall.
- Curriculum articulation and training is a district priority. This is done on grade, building, subject and district levels.

As listed in this document, a wide variety of professional development opportunities were available to the staff of the district during the duration of this plan. The programs available were offered based on results of the Professional Development Survey and at the discretion of the Director of Technology. Articulation takes place between Technology teachers and is overseen by the Director of Technology. Also, as a sending district, the East Hanover Township Schools articulates with Hanover Park High School, where our students will attend to ensure preparedness for high school expectations.

B. Goals and Objectives for 2007-2010

In meeting and discussing the goals listed in the 2004-2007 plan, it was apparent to all committee members that the general goals addressed in that plan are integral to any school's technology integration success. These goals are in line with the ISTE guidelines as well as the State of NJ Technology Plan. We, therefore, have elected to keep very similar goals with substantial changes made to the wording and objectives. Listed below are our 2007-2010 goals as well as a timeline for implementation. The committee recognizes that with the uncertainty of funding and needs in other areas for the future, these goals and timelines are to be used as a guide, but may need to be adjusted due to circumstances beyond our control.

Goal Statement One – Learning for the 21st Century

[Students will use technology appropriately to attain the NJ Core Curriculum Content Standards, specifically Technological Literacy.](#)

Objective 1.1

Provide students with classroom opportunities to use a variety of technologies to demonstrate mastery of established technology skills in line with the EH Technology Scope and Sequence.

Objective 1.2

Provide staff with instruction in the use of appropriate technology integration methods i.e. Problem-based Learning, Kidspiration.

Objective 1.3

Provide Middle School students with instruction and facilitation of the TechYes Program to ensure that all students are technologically literate by 8th grade.

Goal Statement Two – Adequacy of Educational Resources

[Maximize access for every student East Hanover Township Schools regardless of gender, race, national origin, special need and religious affiliation.](#)

Objective 2.1

Provide adequate staffing and financial resources to support for technology maintenance and to support teaching staff and students

Objective 2.2

Research and consider the implementation of remote access to district applications for staff and students

Objective 2.3

Continue to widen and strengthen availability of mobile (laptops, SmartBoards) and assistive technology resources throughout the district

Goal Statement Three – Staff Development

[Continue to provide staff training that will ensure equal opportunity for all users to develop technology skills.](#)

Objective 3.1

Share services with surrounding districts to provide articulated high-level professional development opportunities for a variety of learners, on a variety of topics including technology

Objective 3.2

Include a Technology Self Assessment as part of teacher PGP and note progress on observations/evaluation

Objective 3.3

Add a technology integration section to Teacher Portfolios

V. Three Year Implementation Activity Tables

(July 2007-June 2010)

Three-Year Technology Implementation Activity Table				
Goal/Objective	Strategy/Activity	Timeline	Person Responsible	Documentation
Objective 1.1	Provide specific skill sets to classroom teachers Meet with grade levels to explain expectations	2007-2008	Director of Technology	Listed in Goals/Evaluations
Objective 1.1	Include at least 1 technology-based lesson in plans per week	2007-2008	Teachers	Principal review of lesson plans
Objective 1.2	Continue to provide voluntary after/before school training sessions	2007-2010	Director of Technology	Listed in Goals/Evaluations
Objective 1.2	Delegate at least 1 two-hour meeting per year to the topic of technology integration	2007-2010	Principals, Director of Technology	Listed in Goals/Evaluations
Objective 1.3	Continue to provide at least one "Specials" offering related to technology	2007-2010	Administration/BOE	Yearly scheduling
Objective 1.3	Provide instruction to students in TechYES Program	2007-2010	Middle School Technology Teacher	Lesson plans, observations
Objective 1.3	Provide opportunities for students to display standards needed to assure technological literacy meeting the TechYES guidelines	2007-2010	Middle School Teachers, Middle School Technology Teacher	Lesson plans, observations
Objective 2.1	Plan the necessary finances for adequate staffing to support district technology needs	2007-2010	Administration, BOE	Personnel Minutes
Objective 2.2	Research possibility of remote access	2007-2008	Network Administrator,	Formal written proposal from

			Director of Tech.	Network Administrator
Objective 2.2	Provide financing to start the process of remote access (servers, licensing...)	2008-2009	BOE	Budget item
Objective 2.3	Implement remote access phase 1	2008-2009	Network Administrator	Implementation
Objective 2.3	Plan and budget for mobile/assistive applications	2007-2010	Director of Technology	Budget Worksheets
Objective 2.3	Provided funding	2007-2010	BOE	Budget Item
Objective 3.1	Articulate with surrounding districts to fund and provide staff development	2007-2010	Administration	Professional Development Plan
Objective 3.2	Create/Include Technology Self-Assessment in PGP	2007-2008	Director of Technology, Principals, Teachers	PGP
Objective 3.3	Note progress on technology integration on Observations/Evaluations	2007-2008	Administration	Observations/Evaluations
Objective 3.3	Include Technology Integration Section on Portfolios	2007-2008	Administration	Portfolios

VI. Funding Plan 2010

(July 2007-June 2010)

The large majority of all district resources for the annual school budget come from local funding. The only state/federal funding has been through limited E-RATE support. At times monies from the NCLB grant have been used to support technology goals. Additionally, the newly founded East Hanover Educational Foundation promises to assist in obtaining technology related resources.

Unfortunately, this cannot be relied upon in that we cannot expect to budget a specific amount that we will be granted. As noted earlier, our district does not qualify for many technology grants.

Three-Year Technology Plan Anticipated Funding Table (2007-2008)		
Resource	Item	07-08 Planned Expenditure
Internet	Internet Access/filtering via Cablevision	\$15,000
Online text and subscriptions	Online text Brain POP and United Streaming	\$500 \$1700
Consultants	As needed Printer repairs	\$1000 \$1000
Licensing Fees	STI IT Tracking Iron Port Spam Filter Antivirus Software Library System	\$4000 \$2000 \$3700 \$6000
Security	Instant Alert System	\$3600
Supplies	Toner and Computer Lab Supplies Bulbs	\$6600 \$1500
Printers	Replacement laser printers	\$1500
Computers	Central IMC Smith New Classrooms Replacements Laptops for teacher sign out Projectors for teacher sign out	\$2400 \$2400 \$1600 \$9000 \$9900
Software	For classrooms and lab	\$3000
Miscellaneous	Wiring and Hardware	\$2000

Network Needs	Veritas upgrade New Backup System New switches Wireless Access Points Battery Replacements	\$650 \$3500 \$1300 \$5000 \$500
Morris county ETTC Dues		\$1900
Telephone Services		\$30,000

Funding Plan Sample Table (2008-2010)

Three-Year Technology Plan Projected Funding Table (2008-20010)		
Resource	Item	08-10 Planned Expenditure
Internet	Internet Access/filtering via Cablevision	\$32,000
Online text and subscriptions	Online text Brain POP and United Streaming	\$1200 \$4000
Consultants	As needed Printer repairs	\$2000 \$2000
Licensing Fees	STI IT Tracking Iron Port Spam Filter Antivirus Software	\$8000 \$4000 \$8000 \$14000
Security	Instant Alert System	\$8000
Supplies	Toner and Computer Lab Supplies Bulbs	\$14000 \$5000
Printers	Replacements as needed	\$2000
Computers	Replace Obsolete Computers approximately 50 over two years	\$35,000
Smart Classroom Set Up	Smart Boards (3 /building / year) Laptop (3 /building / year)	\$80,000 \$2700
Software	Microsoft Office 2007 Windows Visa Universal Install	\$20,000
Miscellaneous	Wiring and Hardware	\$5000

Network Needs	New Mail Server	\$14,000
	Fiber backbones and upgrade	\$8,000
Morris county ETT Dues		\$4000
Telephone Services		\$115,000

BOE resolution - attached

VII. Professional Development

Persons Responsible for Coordinating Professional Development Activities

Lawrence Mendelowitz	Director of Curriculum and Instruction
Kerry A. Quinn	Director of Technology

The professional development activities that are currently planned for the 2007-2008 school year for teachers, administrators and school library media personnel are listed in the table below.

Teachers have access to technology via a multimedia PC in the teacher's classroom. Additionally, teachers are able to use PCs located in labs throughout each of the district's school buildings. Special education teachers have the use of a laptop. Media specialists have the use of a teacher-only PC in the computer labs as well as the use of any PCs throughout the lab. In the Middle School there is wireless access using laptops located in mobile labs. All staff are able to sign computers out in this way.

All administrators have access to technology via multimedia laptops as well as through the use of PCs located throughout the schools.

Our Local Professional Development Committee is charged with the task of determining needs and direction for professional development in the district. Based on information attained through an annual needs assessment and with the input of the Director of Curriculum and Instruction, decisions are made about what professional development will be offered for the year. Some portion of all professional development opportunities is devoted to technology.

Currently, our district is a member of the Morris County Educational Technology Training Center (ETTC) through which staff can enroll in free classes on any number of technology topics. Additionally, teachers are invited to attend a monthly Munch and Learn session to learn more about technology topics of interest to educators. Staff development days have been delegated during which some aspect of technology is usually an agenda item.

Teachers and administrators are provided with an increasing bank of excellent web sites as well as a link to a site of the day. Upon request, assistance with specific topics is available from the Director of Technology. Technology Integration is a consideration in all educational topics covered as evidenced in our commitment to curriculum mapping via the online site, Curriculum Mapper. Access to workshops, conferences and other workshop opportunities from sources such as BER, Rutgers, and NJECC among others are provided as available and practical.

For the 2007-2008 school year, we will be participating in an October staff development opportunity with regional school district partners on Problem-

based Learning. Additionally, Munch and Learn Sessions will continue on a monthly basis throughout the year. We are scheduling training sessions for administrators, media specialists and staff on the implementation of a new automated library management system to be used for library circulation, inventory and student centered searches. Finally, we anticipate using a new math series in our middle school that will necessitate the need for training on the technological components of the series. Assistive technology training is conducted on an as needed basis, meaning as students are identified as needing the use of an assistive technology application, all involved teachers are trained on this application. As example of this is training on the use of Kurzweil software. This procedure will continue for the upcoming school year.

Professional Development VII-C 2007-08 only

Educators' proficiency/ Identified Need	Ongoing, sustained, high-quality professional development planned for 2007-2008	Support
Objective 1.2	Problem-Based Learning Workshop	Will follow u p with support sessions for teachers using the PBL Method.
Objective 1.1	Site of the Month	Will follow up with pone-to one support as needed.
Objective 3.1	"Puter Pals – Teachers will communicate with teachers in regional sending districts on technology integration ideas	Will be set up and run by the Director of Technology
Objective 1.1	Cross Grade Level Key Pals	Run and supported by the Director of Technology
Objective 1.2	Monthly Munch and Learn Sessions	Run and followed up by Director of Technology

Financially, resources will come from local budget. Possible other sources include grants, donations from The East Hanover Education Foundation, PTA, community industry and business. Staff meetings, grade level meetings and professional days will be allotted to the topic of technology. Finally, workshops, both in and out of district as may be available and practical.

It is anticipated that current topics will be continued and intensified in subsequent years. The introduction of new technology such as Smart Boards, ipods, tablets that may become practical and available will be addressed as appropriate.

VIII. Evaluation Plan

The Director of Technology and Technology Committee that created this plan will oversee an ongoing monitoring of the plan. The committee will meet at least bi-monthly to assess progress on objectives detailed in this plan. The committee will consider the reality of the situation as it stands and the ability of the district to meet the guidelines outlined in the plan when evaluating the success of the objectives.

Evidence of the student's technology skills will be evident through the products produced in class and during computer classes.

Monitoring of teacher lesson plans by administration will include the need for evidence of weekly technology integration. Formal observations will require a demonstration of technology integration, not just usage, and evidence of this integration will be documented. Teachers will be required to show evidence of technology integration in yearly portfolios.

The plan objectives are listed here along with the method for evaluation:

Objective 1.1

Provide students with classroom opportunities to use a variety of technologies to demonstrate mastery of established technology skills in line with the EH Technology Scope and Sequence.

Evaluated by

Administration via lesson plans, formal observations and portfolio documentation.

Objective 1.2

Provide staff with instruction in the use of appropriate technology integration methods i.e. Problem-based Learning, Kidspiration.

Evaluated by

Professional Development Committee evaluation of professional development opportunities

Director of Technology via staff surveys

Superintendent via yearly evaluation of administration

Objective 1.3

Provide Middle School students with instruction and facilitation of the TechYes Program to ensure that all students are technologically literate by 8th grade.

Evaluated by

Director of Technology awarding of certificates to 8th grade students who prove technological literacy

Administration via observations of Technology Teacher

Objective 2.1

Provide adequate staffing and financial resources to support for technology maintenance and support to teaching staff and students

Evaluated by

BOE via line item funding of personnel

Objective 2.2

Research and consider the implementation of remote access to district applications for staff and students

Evaluated by

Director of Technology review of Network Administrator Proposal

Objective 2.3

Continue to widen and strengthen availability of mobile (laptops, SmartBoards) and assistive technology resources throughout the district

Evaluated by

Teaching staff via presence of the named resources

Objective 3.1

Share services with surrounding districts to provide articulated high-level professional devolvement opportunities for a variety of learners, on a variety of topics including technology

Evaluated by

Presence of in-house network administrator on staff

Objective 3.2

Include a Technology Self Assessment as part of teacher PGP and note progress on observations/evaluation

Evaluated by

Principals via presence of Technology Self Assessment with PGP

Principals via notes of technology integration in formal observations

Superintendent via review of principal observations

Objective 3.3

Add a technology integration section to Teacher Portfolios

Evaluated by

Principals via portfolio assessment checklist

Appendix A
District Technology Inventory

Appendix B

District Acceptable Use Policies

Appendix C

District Technology Proficiency Survey

Appendix D
Board of Education Resolution