

Hempstead Union Free School District

Three-Year Technology Plan



Years 2007 - 2010

Hempstead Public Schools

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Hempstead Public Schools

Technology Plan

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Hempstead Public School Technology Vision Statement

The Hempstead Union Free School District technology environment will be state of the art, efficient, secure and uniform. This technology environment will support students, teachers and administrators. The instructional direction is to integrate technology into all phases of the academic curriculum. The effective use of technology in standards-based, curriculum-rich lessons will achieve high standards for students.

District Technology/Data Committee

District Technology/Data Committee meet to discuss and approved the technology plan. This committee represents all the school and department within the school district. The committee members are as follows:

Dorothy Dallas	Fulton Elementary
Chy Davison	Hempstead High School
Carole Dely-Eason	Early Childhood School
Sylvia Egal	ABGS Middle School
Larry Gaither	Director of Math, Science and Instructional Technology
Linda Harris	Ludlum Elementary
Robin Levey	Jackson Main Elementary School
Hal Miller	PPS
Wendy Niles	Jackson Annex Elementary
Margot Wareham-Bailey	Director of Bilingual Services
Rene Woodside	Franklin Elementary

Goals for Technology

This state of the art technological environment include but are not limited to high speed Internet access, wireless local area Network, enhanced peripherals, web-based instructional delivery systems and research-based software available in classrooms/labs and library media centers, electronic capture of images/documents, attendance and inventory and system to electronically send telephone and/or emails messages to parents/guardians. These will provide opportunities to enhance learning for all stakeholders in the Hempstead School District and improved efficiency in the administrative offices. Specifically, the following goals will be implemented:

Goal 1: Update the wide area network and telephone system to a high speed fiber network

Goal 2: Install a wireless network in all areas of the school buildings

Goal 3: Enhance the teaching/learning process with a wide variety of technologies for all students and teachers.

Goal 4: Continue to replace outdated equipment and maintain an inventory of replacement parts to quickly repair existing equipment

- Replace one third of the desktop computers per year
- Upgrade servers throughout the district at one third per year.
- To quickly respond to hardware problems, maintain an inventory of spare servers, switches and computer parts
- As we continue to expand the use of e-mail, we need to purchase and install a backup mail server.

Goal 5: Increased access in classrooms, labs and library media centers to a wide variety of innovative technologies which include:

- Web-based instruction
- Standards-based software for all content areas
- Updated computer hardware and peripherals.

Goal 6: Integrate technology throughout the curriculum to personalize learning to:

- Support student achievement of state standards in all subject areas
- Accommodate different styles, intelligences and abilities
- Address cognitive, affective, and psychomotor learning
- Enhance the creative problem-solving, and critical thinking dimensions of learning

Goal 7: Extend the boundaries of the learning environment by participating in video conferencing/distance learning experiences

Goal 8: Establish by grade technology curriculum based on the New York State standards for student technology use.

Goal 9: Promote and establish effective, ongoing, professional development that will:

- Insures that the technology education is aligned to the district established curriculum
- Respond to technology-related needs of individual educators
- Assure continued technical competence for teachers, administrators, and support staff

Goal 10: Assess and measure the impact of staff development on effective instructional use of technology by preparing an evaluative instrument or procedure to determine teacher integration of technology into classroom curriculum

Goal 11: Improve maintenance of critical information by electronically capturing:

- Paper documents and related electronic records. This will improve the efficiency and quality of information retrieval(FOILs)
- Computer equipment inventoried and tracked remotely
- Staff Attendance
- Student entry into building at the High School and Middle School

Goal 12: Improve efficiency in the communication between school and parents.

Goal 13: Improve the security of the students and staff by replacing the electronic security system throughout the district

These goals are aligned with New York State standards for student technology use (see Appendix A or website <http://www.emsc.nysed.gov/technology/nclb/standards.htm>). Student needs will be assessed using the K-12 Technology Guidelines developed by Nassau County Technology Directors (see Appendix b).

The following describes the Models for Technology at the District, School and Classroom levels. The plan for implementing this model is reflected in the Proposed Budgets for each year. For example, we will continue to replace outdated equipment, one-third of the computers are scheduled to be replaced in the each year.

Equipment/software Implementation Strategies

These strategies will be implemented over a three year period.

- Update and maintain District infrastructure to support telecommunications, information technology, administrative needs and instructional goals.
- Expand the District Data Committee responsibilities, which consisting of all stakeholders at both the building and district levels, to included technology issues.
- Form building level technology teams consisting of teachers, staff, administration and Library Media Specialists.
- Investigate hardware and software that is usable by all students, whether they are gifted, typical learners, or have special needs.
- Include in the budget money for spare computer components and computer parts so we can repair equipment that is out of warrantee.

The following configurations will be the model for hardware placement in the district.

Classroom Level

- At least 3 multimedia computers, 1 black-and-white printer, appropriate to grade level and subject (some subjects may need color printers, i.e. art)
- Specific peripherals appropriate to grade level and subject, i.e. science probes, scanners, DVD/CD burners

School Level

- Adequate amounts of collaborative devices such as LCD projectors, DVD players, SmartBoards, overhead projectors, digital and movie cameras, scanners and videoconferencing units (with access to telecommunications) which can be used in both large group and classroom scenarios
- At least 2 mobile wireless laptop carts and peripherals with a minimum of 15 laptops in each cart for each school with additional carts based on student enrollment.
- Peripherals appropriate to grade level to support learning in library media centers and in technology education classes
- Adequate Ethernet drops and/or airports or wireless devices to accommodate wireless connectivity in halls, cafeterias, libraries, parent centers, gymnasiums and

auditoriums to maximize learning with technology in large and small flexible groupings and spaces

- Software which promote standards-based innovative instructional practices and increased student achievement
- Access to color printing available through the network
- Continue to provide adequate funding for toner cartridges through school budgets

District Level

- An integrated fiber Wide Area Network (WAN) which allows all district personnel to interconnect/interact, allows the sharing of data and information, using the Internet for research, audio and video streaming and IP videoconferencing.
- A laptop lending program for teachers to use on a temporary basis to enhance student learning
- Adequate technical support for all equipment
- Purchase automatic inventory software to create and maintain of a database of all hardware and software.
- Purchase software and hardware to immediately capture all documents and electronic records for ease of retrieval. Scan older document to complete the research process
- Adequate funding for computer components and parts for repair of equipment not covered under warranty which has not been deemed as surplus.
- Software to Improve efficiency in the communication between school and parents.
- Hardware and software to improve the creation mail communication to the parents
 - Report cards
 - General district mailing
- Software and hardware to electronically monitor the attendance of staff.
- Software and hardware to electronically monitor the entrance into the building by students
- Update the security system throughout the district

Acquisition of New Hardware and Software

The following standards will be used for acquisition of new hardware and software:

- Computers older than 5 years or when the software/peripheral requirements outgrow hardware capabilities
- Software will be renewed or replaced when it is no longer supported by the company, the version is too out-of-date to be used on updated computers or the software no longer supports student achievement. There will be continuous monitoring by district personnel.
- Peripherals (printers, scanners, SmartBoards, LCD projectors)-when cost to maintain exceeds cost to replace or instructional/administrative needs can not be supported due to limitations of devices or they reach 5 years old
- Servers, routers, switches, modems, cabling-when cost to maintain exceeds cost to replace or instructional/administrative needs can not be supported due to limitations of system

Technical support

Technical support includes:

- Security procedures and software are and will remain in place. There will be periodic password rotations, limited administrative access and physical security devices on computers.
- Board approved computer use/internet safety plan is in place and signed by both students and staff(Appendix F)
- A firewall is and will remain in place and opening of the ports will be limited.
- Periodic security audits will be conducted.
- Current virus software is and will remain in place and will be upgraded as appropriate to maintain security.
- Internet filtering for content is and will remain in place on all computers in the district and will be upgraded as appropriate to maintain security.
- Desktop standardization, based on function, will remain in place on all networked computers.

Software Products

Administrative Software

The district has software solutions in place for the student management system (SASI), the food service system (Winsnap), the special education system (Cleartrack), the financial Management system (Finance Manager) and the Library system/text book inventory (Mandarin). During the three year period that this plan covers, we will purchase and install a computer inventory system, image retrieval system and a security system.

Instructional

All classroom computers have age appropriate software installed on the individual work stations. During the three year period that is covered by this plan, the district will implement a web based software system that will allow the district to use individual student data to drive instruction.

Curriculum and Instruction Integration Strategies

Curriculum and Instruction Integration Strategies will be implemented over a three year period. For specifics see years 1-3 in the budget attachments.

Continue to research new and innovative strategies and technologies which support student learning and effective time management. These include:

- Software/web-based subscription services which meet Hempstead Public Schools education needs
- Maximize integration by providing timely and continuous support for teachers throughout the year based on needs of the individual schools. Support will be provided by in-district and out-of-district professional development staff to individuals and groups.
- Help classroom teachers, library media specialists, technology education teachers provide a learning environment for students which uses technology to improve academic achievement.
- Technology will be used to assess student knowledge

Professional Development Strategies

Professional Development is not a one-time event but is an ongoing process.

We will:

- Add a technology staff developer to provide on-going technology support in groups and with individual staff members.
- Use the attached Technology Skills Survey(Appendix D) to determine the skill level of the staff. Use the information gained to update professional development offerings and a diversity of formats and time frames:
 - Before- and after-school workshops utilizing on-site and off-site experts
 - Release time, on-and off-site workshops
 - District in-service training
 - Continue to work in partnership with district administration, district's teacher TRACT, and BOCES to communicate professional development offerings and to insure the appropriateness of the offerings.
- Investigate professional development management systems to recognize, encourage and track professional technology work and certifications.

Evaluation

On going evaluation of District Goals and Strategies related to the areas of Equipment, Curriculum and Instruction, and Technology Professional Development will be accomplished through the District Technology Committee, and the Building Technology Committees. The evaluation will be completed using:

- Yearly review and updating of Student Skills Survey
- Teacher Skills Survey
- Professional Development Feedback Form