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Stamford Central School

Technology Plan

July 2010- June 2013

<http://stamfordcs.org/techplan.pdf>

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Introductory Material

Technology Committee Members

Ruth Ehrets- Administration
MaDonna Staiber – 4th Grade
Bruce Voorhees – Network Specialist
Cindy Keyser – 1st Grade
Dawn Tefft– 6th Grade, ELA
Maureen Roberts – 5th & 6th Grade, Math
Candy Gockel- 5th Grade, ELA
Carrara Knoetgen – Library Media Specialist
David Numbers- Instrumental Music
Megan Eklund- History Dept.
Elaine Jaycox- English Dept.
Howard Mattsson- Math Dept.
Danielle Rhone- Science Dept.

This Committee meets regularly to provide ongoing review of the plan.
The purpose of this committee is to steer technology at Stamford Central School in a direction that will make the most effective learning environment for our students.

Mission Statement

Our Mission is to build a partnership of students, families, staff, and community members in order to create an educational community dedicated to excellence.

Learning: All children can learn. Each student is capable of reaching his/her full potential at his/her own individual rate.

Self-Esteem: Each child's self-esteem needs to be fostered and nurtured.

Environment: All children are entitled to a safe and caring atmosphere that promotes a desire to learn, as well as a curriculum, instructional methods and expectations that challenge them to perform at their best.

Community: Each child's academic and social development is enhanced by an actively participating community. All partners are encouraged to pursue a life-long learning.

Assessment: Assessment must be continual, subject to periodic review and focused on:

1. The educational process to determine its consistency with our mission statement and beliefs.
2. Our mission statement and beliefs in light of changing educational needs.
3. The individual participants to determine if their educational needs are being met.

Introduction

Stamford Central School (SCS) is a small rural school comprised of one PreK-12 building serving approximately 377 students, as well as an additional building that houses alternative education programs serving approximately ten (10) students. SCS is located near the intersection of New York State Routes 10 & 23 in the Northern Catskill Mountains. The District has a long, rich tradition of academic excellence with a preponderance of graduates receiving Regents Diplomas. This commitment to academics is enhanced with a well-rounded and broad-based extracurricular program which includes athletics, the arts, clubs, student leadership, and opportunities for volunteerism. While many graduates from SCS have gone on to some of the most prestigious colleges in the country, others have taken full advantage of the vocational training through BOCES programs and remained local community members while embarking on very successful careers.

Stamford Central School has long enjoyed a very involved and supportive relationship with the community and local taxpayers. This has been very evident with taxpayer passage of annual budget votes, building projects, and school bus acquisitions. In turn, the school has endeavored to serve as a reserve for community activities while pursuing local, state, and federal grant resources to fund program expansion for the children of The District while not adding those costs onto the local tax base. The school and community have both been very fortunate to have the generosity of several local foundations which help to fund many, many causes both in the school and the local area.

Individual class sizes at Stamford Central School usually run between 10-20 students and are taught by a staff of 43 certified teachers, a compliment of licensed teaching assistants and aides, and an itinerant staff who provide services through the Otsego-Northern Catskills BOCES. The socioeconomic status of our students, as reflected by free/reduced lunch population is 43%. Through various grants, the Stamford Central School building is both fully wired to the internet while also being a “wireless” facility. Having both capabilities allow our students to partake of Distance Learning opportunities with other schools (including colleges), utilize the three wireless laptop carts (housing a combined 65 units) throughout the building, and travel around the world via “virtual fieldtrips”.

Stamford Central School has long been a well-respected institution within Central New York by utilizing both staff decision-making and planning as well as securing and implementing the most recent educational programs. By securing “Energy Efficiency and Conservation” incentives through State and Federal programs, The District is able to reduce energy costs while providing a “learning platform” for the area students to utilize.

While some students who have been identified through the Committee on Special Education are serviced through BOCES placements, many of the children receive their instruction through the Stamford Central School “Learning Center” model which provides students with individualized instructional strategies through the three centers, one in the elementary, one in the intermediate, and one at the high school level.

In all, Stamford Central School has endeavored to take advantage of the benefits of being a smaller environment while transcending the liabilities of the same through progressive planning, aggressively seeking grant-based programs, and utilizing technology to its fullest potential.

Vision

The vision of Stamford Central School as it relates to technology is to keep pace with advancing technologies in light of changing educational needs, in order for our students to succeed in the global community.

Technology Goals

- Goal #1- Continue to maintain/update school webpage design and usability
- Goal #2 – Provide support and training to teachers to establish grade level/subject based web-pages
- Goal #3 – Offer peer and professional staff training on an ongoing basis
- Goal #4 - Integration of technology into classroom activities to support our vision
- Goal #5 - Improve wireless signal availability
- Goal #6 – Maintain and update hardware and software to improve efficiency

I. Curriculum Goals

A. Integration

Goals supported by the International Society for Technology in Education (ISTE):

1. Research and Information Fluency Goal:

- a. Educators, in conjunction with the Library Media Specialist, will spiral the concept of research and information fluency by delivering direct, explicit instruction in research skills throughout a student's academic career
- b. This will support improved academic achievement not only in the content area, but also in technology and information literacy by:
 - Students will complete research projects at various grade levels to exhibit information literacy and research skills
 - The finished product will demonstrate the degree of understanding of the skill or strand in the content area; and
 - The experience of creating an original work using technology will demonstrate the students' ability to manipulate technology.
 - This goal will be promoted by direct instruction and classroom visits by the Library Media Specialist

2. Digital Citizenship Goal:

- a. Instruct, advocate and practice safe, legal, and responsible use of information and technology in accordance with our Acceptable Use Policy and SCS Code of Conduct:
- b. This will support improved academic achievement by:
 - Limiting distractions
 - Increasing faculty, staff and student awareness of ethical technological practices
 - This goal will be promoted by communicating and enforcing existing policies, and providing direct instruction via faculty, staff and guest speakers

3. Technology Operations and Concepts Goal:

- a. Students, faculty and staff will be introduced to and instructed on how to utilize the new OPALS automation system
- b. This will support improved academic achievement by:
 - Facilitating research
 - Improving access to library holdings and information
 - Improving the process of review and analysis of holdings to identify areas of need and create a rich collection of materials that support CORE curricula
- c. This goal will be promoted by the Library Media Specialist through direct instruction of faculty and staff. Students will learn about OPALS from the Library Media Specialist in cooperation with teachers.

4. Facilitate and Inspire Student Learning Goal:

- a. Raise student achievement on state assessments by 5%.
- b. This will support improved academic achievement in the classroom, as well as on state assessments by:
 - Motivating students through the use of technology
 - Utilizing research-based software applications, including but not limited to: Castle Learning, Read Naturally, Acuity, etc.
- c. This goal will be promoted by:
 - Be conscious of changing trends in research-based software applications
 - Review indicators within the software applications of existing programs to determine continued effectiveness, purpose and student engagement
 - Investigate new research-based software applications
 - Acquire and utilize software applications for assessment, as well as for purposeful practice
 - Provide training and continued support

5. Model Digital-Age Work and Learning Goal:

- a. Improve faculty and staff awareness, understanding and utilization of technology available to our district
- b. This will support improved academic achievement by:
 - Providing diverse methods of instructional delivery to reach students with various learning styles
 - Improve rapport with students through shared technological literacy
- c. This goal will be promoted by:
 - Training and continued support offered through a variety of providers including, but not limited to: Teachers' Center, BOCES, in-house trainings, vendors, conferences, etc.

B. Student Achievement

Technology will be integrated into curricula and instruction by a variety of means, which may include the following:

- 1st- 3rd grades use an electronic phonics assessment tool.
- 1st graders team with 9th grade keyboarding students for digital presentations
- 3rd -5th grades use a typing program, such as Mavis Beacon to promote keyboarding skills
- 4th grade completes and presents an extensive research project using electronic resources, such as the Internet
- 5th and 6th grades complete and exhibit research projects on States and Countries
- 5th – 12th grades complete and present projects based on literary works
- 7th – 12th grades, students complete a variety of research project within the content areas
- 11th grade completes a formal term paper as a capstone demonstrating their technological literacy and research skills

C. Technology Delivery

Currently, we both transmit and receive Distance Learning courses. Virtual field trips and video-conferencing are also available through our district. Podcasting and Kindles are being considered for future use. These opportunities enrich the offerings provided to our students. These methods of delivery will increase connectivity with the global community, improve student engagement, reach students with a variety of learning styles, and increase time on task, which all lead to increased student achievement.

D. Parental Communications & Community Relations

- Our Technology Plan is available on our district website
- Information is shared with parents via:
 - teacher websites
 - printed materials, including Acceptable Use Policy
 - email
 - student management system access by parents
 - open house presentations
 - parent-teacher conferences
 - sharing results from various electronic assessment tools
- Parent and community input is through:
 - Board of Education meetings
 - Shared Decision Making Committee (parent and community members are a part of this committee)

E. Collaboration – N/A

II. Professional Development

F. Professional Development

- Professional Development strategies employed to ensure awareness of available technology are communicated both verbally and in writing and offered via: Teachers' Center, BOCES, in-house trainings, vendors, conferences, etc.
- Presentations and training include practical application tips. PD evaluation forms inquire about integration into practice.
- Years 1, 2, and 3
 - Superintendent's Conference days – 2/year
 - Regents' Week – may include at least one offering
 - Roundtables – may include as many as 3/year
 - Faculty meetings – may include technology PD as many as 3/year
 - Technology Committee members to provide training and support as needed
- National standards addressing technology competencies will be made available to teachers, administrators and other relevant educators by posting the links to the ISTE standards on the SCS library website

G. Supporting Resources

- The following are examples of resources utilized for supporting the technology program:
 - Technology Committee
 - District policies, including the AUP Policy and the Code of Conduct
 - Syllabus for college course(s)
 - Syllabus for distance learning offerings
 - Data generated from research-based software applications
 - Annual end-of-year library report

III. Infrastructure, Hardware, Technical Support, and Hardware

H. Infrastructure Needs / Technical Specification, and Design

The network at Stamford Central School is currently a modern Layer 2 and 3 Switched Gigabit over Copper Ethernet system using a mix of category 5e and 6 cabling. The switching part of the network consists of a Layer 3 Routing capable core switch (a Nortel 3510-24t) and Layer 2 switches in 3 separate data closets that connect directly to the core switch and building network jacks. There are very few “hops” for any network traffic to go through to get from one place to another.

Connected directly to the core switch are the six servers, various control, monitoring and power protection systems, and the Cisco switch that is used as the edge device for our Gigabit connection to the Wide Area Network and for our Distance Learning CODEC traffic.

Internet traffic is passed through a SonicWall NSA 2400 device that is used to filter out inappropriate web content to meet CIPA requirements. This device utilizes a “live” database that we pay a subscription for and is constantly updated and analyzed. We can customize the list in several ways using keywords, categories, and individual networks or web servers can be allowed or blocked as needed. The NSA2400 also provides intrusion prevention, network edge antivirus and malware protection, and limited VPN connectivity for remote access to the district for critical systems such as heating and remote network maintenance.

The network consists of a pair Windows 2000 servers handling DHCP, DNS, Print services, and file storage. There is a Windows 2003 server used for storing large multimedia files. There is another Windows 2003 server used for financial applications and administrative file storage. Currently Library Automation is on a Windows NT box, but this is soon to be replaced by the OPALS open source library software system.

The network client workstations are mostly Windows XP with a handful of Windows 2000 machines in the building.

Stamford does have wireless access points throughout the building, and the signal is available in most areas.

Backups for student and staff data are provided by a network appliance with 1.5 terabytes of storage and offsite vaulting for critical files.

All the computers connected to the network are greater than 1 GHz processing power; most far exceed this level of performance. The district owns and provides access for students and teachers to many assorted video and digital Still cameras, document cameras, scanners, special needs devices, peripheral, and software as needed

We currently have a Multimedia training lab that provides access to any imaginable form of media available, a general computer lab, a business/video editing lab, a tech lab with graphics and design software, and 3 mobile laptop carts with projectors, scanners, various input devices, and printers available throughout each of these labs.

This network, in its current state, will provide capabilities and an adequate backbone to support any and all of the goals included in this technology plan. In the past, we have had equipment and technology that is ahead of “the curve” required for the growing computing requirements of our staff and student population. We will continue to strive towards maintaining that level of performance and available technical strength in the future. As we have 300+ computers on site, we currently have a very high “computer” to student ratio, so future requirements should be easily met for the duration of this plan.

In general Stamford Central School operates all Windows based PCs and Servers with Intel Processors and chipsets purchased based on the NYS OGS Bid. By using computers with a consistently similar architecture and OS, we ensure interoperability, longer available production cycles, and ease of following industry standard procedures for the handling, backup, and use of electronic data in our district. As this process has worked for us in the past, it is our intent to continue using the same guidelines for future purchases.

The District currently obtains all of its technical support via Broome Tioga BOCES Network Support Services by employing an On-Site .5 FTE Network Specialist through that program.

J. Increase Access

The District, in the past has purchased Loaner Laptops each year for the past 3 years to help disadvantaged, ill, injured, or students otherwise not able to use our in house computing equipment. These loaner laptops are also used by teachers for conferences and/or home use, as necessary. The District, in the past has also purchased assistive technologies for students in need. We currently have some assistive technologies on site that are in reserve and available should the need arise. As we cannot foresee all the possibilities of new students with challenges coming into the district, we plan to address any needs that come up, that would use resources beyond what we have, on a case by case basis according to the individual educational plans these students may have.

IV. Funding and Budget

K. Budget and Timetable

Budget Item	2010-2011	2011-2012	2012-2013
Hardware & Networking costs	5300	5100	5000
Maintenance & Service costs	1300	1600	1800
License agreements	5200	5500	5800
Software and curriculum support	6400	6500	6600
Professional development	7000	8000	9000
Network support	40000	43000	46000

Timeline for establishment of goals

Goal #1

Continue to maintain/update school webpage design and usability

Narrative: Stamford Central School currently has a school website, www.stamfordcs.org. The Business Education Desktop Publishing class periodically upgrades the website. It has general school district/community information. This site can be used to improve communications with parents by accessing information such as homework assignments, classroom activities and school events.

Timeline: The website will be updated continually by a variety of sources. This will include staff members, faculty and students within publishing classes.

Goal #2

Provide support and training to teachers to establish grade level/subject based web-pages

Narrative: Stamford Central School teachers will develop grade level/subject websites, placed on the SCS website that will improve communications with parents and students. Stamford Central School will utilize the SCS website and the Internet to improve communications with parents and students.

Timeline: Instruction and support will be provided in an attempt to design and publish 15 classroom teacher web pages during each of the next three years.

Goal #3

Offer peer and professional staff training on an ongoing basis

Narrative: Stamford Central School has seen an increase in computer/digital technology in the classroom. Classrooms have access to: wireless labs; Power Media Plus; virtual field trips; streaming video; video editing; web design; presentation software; grade book/attendance software; etc.

Stamford Central School will continue to implement peer and professional training for all staff members in the use of technology available in the district now and in the future through staff development. This may include but is not limited to monthly faculty meetings, roundtables, conference days, BOCES contractual services, Offsite conferences, and In house trainers.

Timeline: There will be continued training for use and implementation of Power Media, virtual field trips, video education, professional development for technology products and services previously acquired (i.e. video editing, web design, streaming media, grade book, smart boards, etc.)

Goal #4

Integration of technology into classroom activities to support our vision

Narrative: Effective learning environments combine traditional and new approaches to facilitate learning of relevant content while addressing individual needs. An effective learning environment should prepare students to meet today's technology standards

Timeline: The majority of Stamford Central School instructors will facilitate integrated use of technology into daily classroom activities.

Goal #5

Improve wireless signal availability

Narrative: Stamford Central School currently has wireless access points that cover about **100%** of the school's main building. The access points need to be moved and adjusted in order to provide balanced coverage as there are some weak areas.

Timeline: Stamford Central School will improve its current wireless network system by adjusting the location of and maintaining currently owned wireless networking equipment.

Goal #6

Maintain and update hardware and software to improve efficiency

Narrative: Stamford Central School currently has approximately 380 computers for student use.

Timeline: Stamford Central School will continually maintain existing hardware.

L. Coordination of Resources –

Stamford Central School District's plan for long-term investment and financial planning for technology includes the use of Federal grants, State software and hardware monies, local funds as reflected as line items in our budget, as well as grant funding from foundations including, but not limited to Robinson-Broadhurst Foundation, O'Connor Foundation, Teacher Center grants, etc.

Hardware, networking, maintenance and service costs are budgeted with State hardware funds, local funds and grants, i.e. Robinson-Broadhurst Foundation grants.

License agreements and software are budgeted with State software funds and local funds.

Professional development is budgeted with Federal Title IIA funds and local funds.

Equipment and services funded by private grants are generally purchased through our BOCES in order to receive state aid on said purchases during the following school year.

V. Monitoring and Evaluation

M. Evaluation

- The process by which the evaluation will be conducted will include maintaining records of teacher attendance at professional development sessions, teacher use of available technology, student use of available technology, and student use of software applications for assessment. Results of electronic assessments will be one measure used to determine the efficacy of instruction, coupled with observations conducted by administrators and student performance on state and local exams. Monthly data meetings between educators, administrators, and AIS providers will be held to review data from various types of assessment to determine instruction. Student projects demonstrating knowledge of technology skills will also be reviewed by educators to evaluate instruction and student understanding.
 - Evaluation will be ongoing and conducted at several levels. Teachers will be responsible for evaluating student progress as measured by software applications for assessment and project-based assessment. Student progress will be evaluated both at the teachers' discretion and during monthly data meetings.
 - Records of and statistics on teacher and student use of technology will be kept by the Library Media Specialist and included annually in the Library Media Center's end of year report.
 - Administrators will be responsible for keeping records of professional development attendance. They will also conduct annual meetings with professionally certified teachers. They may also conduct evaluations of teachers' effective use of technology during 3 annual observations and lesson-plan review for non-tenured teachers, one annual observation for tenured teachers, or review of other forms of evaluations.
- Unmet goals will be identified by administrators using data from the evaluation methods listed above. Strategies for meeting these goals include:
 - Constructive evaluation meetings between administrators and educators to discuss a means to implement electronic resources effectively
 - Providing and encouraging teachers to attend professional development sessions for improving existing skills and developing new abilities.
 - Aggressive marketing of available technology by the Library Media Specialist
 - Reviewing current practices and software applications for efficiency

1. Access to electronic telecommunications is available to students and staff at Stamford Central School. Access is through a variety of providers and includes e-mail, telephone, fax, television, radio, distance learning, internet and other on-line computer services, as well as electronic interlibrary loan. The goal in providing these services to students and staff is to promote educational excellence by facilitating resource sharing, innovation, and communication.
2. Electronic telecommunications is a general term referring to many systems of communication that are handled through electronic devices. The internet, for example, is an “electronic highway” providing communications with millions of people all over the planet. Distance learning, as currently configured, provides audio and video interactivity for students in up to four locations.
3. In the past, access to instructional materials was limited because instructors and supervisors could subject such materials to reasonable selection criteria. Through electronic telecommunications, material becomes available that may not be considered to be of educational value in the context of the school setting. Available precautions are taken by the Stamford Central School to restrict access to controversial materials, as defined in regulation 9045.1. In addition, the appropriate utilization of electronic telecommunications relies on the proper conduct of the students and staff in adhering to guidelines. The guidelines are provided so that students and staff are aware of their responsibilities in appropriately utilizing electronic telecommunications.
4. The use of electronic telecommunications is a privilege, not a right, and inappropriate use will result in a cancellation of those privileges. Based upon the acceptable use guidelines, the staff may request the district superintendent to deny or revoke the privilege of an individual to utilize specific modes of electronic telecommunications at the Stamford Central School.
5. Communication on electronic telecommunications is subject to a need for responsible behavior and is governed, in addition to this policy, by the district’s student discipline policy, code of ethics, and copyright law.
6. The Stamford Central School will enter into agreements with regional networks and providers of connections to electronic telecommunications, and adhere to government regulations on the use of electronic telecommunications. Students and staff are expected to adhere to the stipulation of these agreements and regulations.
7. The board authorizes the district superintendent to prepare appropriate procedures with guidelines for implementing this policy.

Access to electronic communications policy

1. The purpose of acceptable use procedures for electronic telecommunications is to provide guidelines to students and staff of the Stamford Central School.

2. The purpose for providing access to electronic Telecommunications is to support research and education in and among academic institutions, business, government, other organizations, and individuals by providing access to unique resources and the opportunity for collaborative work.
3. The Stamford Central School makes no warranties of any kind, whether expressed or implied, on the service it is providing in making electronic telecommunications available to students and staff. The Stamford Central School will not be responsible for any damages suffered by individuals. This includes loss of data resulting from delays, nondeliveries, mis-deliveries, or service interruptions caused by negligence or user errors or omissions. Use of any information obtained via electronic telecommunications is at risk of the user. The Stamford Central School specifically denies any responsibility for the accuracy or quality of information obtained through its provision of electronic telecommunications.
4. The following guidelines will govern an individual's privilege to utilize electronic telecommunications. Any violation will jeopardize that individual's privilege and may result in other consequences.
 - A. Vandalism is not permitted. Vandalism is Defined as any malicious attempt to harm or destroy data of another user, internet, or other networks that are connected via electronic telecommunications. This includes, but is not limited to, the uploading or creation of computer viruses.
 - B. Accounts for utilization of electronic telecommunications are established and paid by the Stamford Central School permission to utilize these accounts is given to specific individuals. Individuals may utilize only those accounts for which they have been authorized.
 - C. Electronic telecommunications may not be used for any illegal activity, including the violation of copyright or other contracts.
 - D. Electronic telecommunications may not be used for financial or commercial gain.
 - E. Electronic telecommunications will not be used to gain unauthorized access to resources of entities.
 - F. Users of electronic telecommunications will abide by the generally accepted rules or etiquette:
 1. Be polite and respectful of others
 2. Use appropriate language and gestures.
 3. Respect the privacy and intellectual property of others
 4. Be responsible by identifying yourself in messages, transmissions, or broadcasts, but do not reveal personal home addresses or telephone numbers of anyone.
 5. Use electronic telecommunications with consideration and respect so that others can also make use of service.
 6. Understand that electronic telecommunications are not guaranteed to be private. People who operate systems do have access to messages and transmission over certain media such as e-mail, internet, distance learning and electronic interlibrary loan.
 7. Electronic telecommunications may be monitored and records may be maintained of communications.

- G. Specifically forbidden is the transmission or receiving of communications in any format which are pornographic, profane, obscene, depicting explicit sexual scene, violent or which contain other material or media with limited educational value according to local community standards.
- H. Users of certain types of electronic telecommunications such as the internet and other on-line services will be required to sign a contract agreement and application in order to establish authorization for use of that service.

Stamford Central School District
Adopted: July 9, 1998