



SULLIVAN WEST CENTRAL SCHOOL DISTRICT

33 Schoolhouse Hill Road
Jeffersonville, NY 12748
845.482.4610



COMPREHENSIVE TECHNOLOGY PLAN 2010-2013



Dr. Kenneth Hilton
Superintendent

Sohail Raikhy
Director of Technology
raikhysoh@swcsd.org

845.932.8401

Elizabeth Huggler
Assistant Director of Technology
hugglereli@swcsd.org
845.482.4610



TABLE OF CONTENTS

1	Introduction	1
2	Vision	2
3	Mission Statement	3
4	District Goals	3,4
I	<u>Curriculum and Instruction</u>	4-11
A	Curriculum Integration-Goals and strategies	4,5
B	Student Achievement	5,7
C	Technology Delivery – Rigorous courses	7,8
D	Parental Communications and Community Relations	9,10
E	Strategies for developing district programs... – adult literacy	10
F	Age Appropriate Internet Safety Curriculum	10,11
II	<u>Professional Development</u>	11-14
G	Sustained professional development for teachers...	11,12
H	Services, software, other electronically delivered learning materials	13,14
III	<u>Infrastructure, Hardware, Technical Support and Software</u>	
I	Strategies to identify the need for telecommunication services...	14,15
	Inventory	15-17
J	Strategies to increase access to technology for students and teachers	15-17
IV	<u>Funding and Budget</u>	
K	Timeline and budget	18,19
L	Coordinating available state and local resources	19
V	<u>Monitoring and Evaluation</u>	
	Evaluating activities that are effective	19
	Monitoring use of system subject to district's policy's for faculty, staff, and students (AUP)	19,20
	<u>Figures</u>	
	Figure 1 – High School LAN Layout	20a
	Figure 2 – Elementary School LAN Layout	20b

Figure 3 – High School MDF	20c
Figure 4 – Elementary School MDF	20d
Figure 5 – Sullivan County ATM Network	20e
Figure 6 – Hudson Valley DataNet	20f

Appendices

Appendix A: Elementary Technology Curriculum & Standards	21-51
Appendix B: Student & Teacher Technology Use Self Survey	52-58
Appendix C: Library Databases	59-61
Appendix D: Technology Integration Grant Application	62-63
Appendix E: Inventories	64-74
Appendix F: Projected Expenditures	75-76
Appendix G: Student AUP & AUP Discipline	77-81

District Mission

Our District's mission is to provide a world-class and globally-competitive education for each student through excellence in teaching and learning, supported by the combined efforts of students, parents, educators, and community members.

Introduction

The Sullivan Central School District is located in Sullivan County, New York, a rural farming community where the average income level is working and lower middle class. The district has a student body of about 1300 students, and has a free lunch program enrollment of over 23%. Student/Staff ratio is approximately 11/1. Being rural and rather removed from large institutions of learning and other cultural and business resources, the need for a powerful technological component to bridge this gap is deemed essential. The overriding vision of our plan is that technology is a powerful force in an educational environment, and that it fosters the development of lifelong learning skills within an effective and diverse teaching and learning environment.

In support of the overall mission of the Sullivan Central School District (SWCSD) to prepare its students for the challenges of life ahead, the district Technology Planning Committee has created a three-year Plan for Educational Technology. This plan covers the 2010 through 2013 school years and provides substantial detail in answering the basic question of how technology will become a useful tool in supporting the education of our students. The following pages develop that answer through attention to technology's curriculum linkages, staff development in teaching with technology, the development of a robust educational technology infrastructure, and the budgets and resources necessary to activate and maintain the plan.

The direction current technologies are moving toward indicates a convergence of data, telephony, audiovisual and networking systems (including and perhaps subsumed by the Internet) that in effect, put information and communication at the fingertips of the user. Our plan maintains that technology must be thoroughly incorporated into schools and classrooms so that our teachers, students, and administrators can use it in all aspects of the educational experience. When sensibly and thoughtfully integrated into the learning environment, technology can motivate students, assist in the learning of essential content and skills, improve education equity, especially among special needs students, and generally transform the roles of teachers and students. In short, as Sullivan West prepares its students to become key contributors to the world of the 21st Century, the positive role of technology in education becomes undeniable.

Our plan lays out a strategy by which this widespread integration will occur. Our district has implemented a comprehensive technology solution that provides students and teachers access to applications and data on any networked location on any campus as well as via the Internet at any

remote location. The aim is to make technology tools available to *all* of our stakeholders in a meaningful and equitable manner. This plan takes the position that technology is a tool that can be applied broadly across the curriculum. In fact, technology's real value is as an integrated curriculum tool which is part of the overall curriculum strategy. Our goal, therefore, is not to teach technology solely for its own sake. Rather, as we plan strategies and integrate curriculum that addresses the NETS, New York State and NCLB standards, we will identify ways in which students and teachers will use technology as a part of their overall educational experience.

Administrative expectations and support are necessary for any successful instructional change to occur in schools. Stated administrative goals for high levels of technology integration by faculty must be communicated explicitly and reinforced by technology access to enable extensive practice, excellent technical support to troubleshoot technical glitches, and quality professional development experiences that are individualized and provided in a comfortable environment. Given these consistent messages of organizational support and clearly communicated expectations by administrators, school-based faculty generally will support the school's technology integration goals (U.S. Department of Education, n.d.; Moursund, & Bielefeldt, 1999).

Vision

We are proud of our schools, our enthusiastic community, and our dedicated, generous staff. Within this community and school environment, our shared goal is the preparation of well-informed problem solvers ready to tackle the dilemmas of the 21st century. We recognize the need for resources, skills, and support for our staff, students and community, therefore we will make the following assurances.

- Current technological resources will be available to all students, staff and community, including Internet service.
- Training for staff, students, and community members will make use of technological resources.
- On-going training and as-needed assistance will be readily available.
- All students will have technology and information literacy skills, and appreciate the need for critical thinking skills in the use of technology.
- All teachers will use technology effectively to help students achieve high academic standards.

Technology Mission

We know that being a medium sized, rural school has certain advantages for our students. We strive to capitalize on those advantages. We also recognize the disadvantages of being such a school district, but we will not be left behind in the "race to the top", while preparing skilled

problem solvers for the 21st century. Consequently, we propose that following will be in place for the duration of this plan.

- All teachers and teacher assistants will be literate in the current technologies available in our school.
- All students will have access to resources available on the Internet and networks within our school district.
- All classrooms will have connections to the district network and its library media resources, to the Internet and to appropriate software available in each subject area.
- All teachers will be trained in the use of technology in the content areas. The use of presentation equipment and software will allow them to offer state-of-the-art instruction.
- All students and teachers will have access to their work and the applications they use in any networked location on either campus or remotely through the Internet.
- All students will see the connection between being informed and being a responsible citizen.
- All our students and the community will be encouraged to become lifelong learners. Our school will further develop and enhance its role as a community resource.
- All parents and other community members will be offered general training to assist students in their technological education

District Goals

This plan provides a set of goals to continue to establish information technology at the Sullivan West Central School District in the major supporting role it must play for the district to effectively accomplish the goals outlined in its strategic plan. These goals focus on managing the districts technology infrastructure, implementing systems for communication and collaboration, creating systems for effective data collection, and distance education development over the next three years.

Technology Literacy Goal:

Student engagement in learning increases with technology.

- Learning is differentiated and active.
- Learning is constructed and inquiry based.
- Learning is collaborative and communicative.
- Learning is available 24/7, and students are active contributors to the learning environment.

Technology Integration Goal – Instruction:

Teachers engage technology in the teaching and learning cycle.

- Instruction is collaborative and differentiated.
- Instruction is driven by data.

- Instruction is supported by relevant professional development.
- Digital learning resources support Instruction.

Technology Integration Goal – Community Connections:

The Community is connected with learning.

- District, school, and student data is shared.
- Procedures, policies and information are shared.
- The Community is involved in technology planning.

Section I Curriculum and Instruction

The adults of the twenty-first century are the students in our classrooms today. SWCSD has always been eager to provide our student body with up-to-date materials, equipment and well-trained educators. Organizational change in instructional technology integration does require sufficient facilities, resources, access, and support, but successful technology integration will only occur if faculty members have sufficient preparation and planning time (Becker, 1994; Ennis III & Ennis, 1995-6; Ertmer, 1999; Gilmore, 1995; Hunt & Bohlin, 1993; Lawler, Rossett & Hoffman, 1998; Schrum, 1999; Strudler & Wetzel, 1999; Walker, Ennis-Cole, & Ennis III, 2000; Yildirim, 2000).

- A.** Curriculum Integration-Goals and strategies, aligned with the state and national standards, for using telecommunications and technology to improve teaching and learning.

SWCSD will use a variety of technologies to help teachers and administrators evaluate students' academic advance towards meeting target goals as outlined in the Strategic Plan.

Teachers at all sites are expected to access their email daily. Most teachers use student data management software (e.g., SASIxp, ESchool Data, DIBELS, Excel) to help manage data for their students. Teachers in the District utilize productivity software (word processing, spreadsheets, and presentation software) on a regular basis as part of their instructional practices. Some teachers make use of the Castle Learning software to track student performance, and to prepare and grade tests linked to State standards for the curriculum. Nearly all teachers use their Internet browsers to search the Internet and to obtain facts and information and lesson plans to assist them in delivering instruction.

Administrators have access to several data bases showing key indicators of instructional progress. NYS Report Card is used to give administrators, staff and community stake holders and overview of our students' progress. DATA mentor is a web portal designed to provide an effective way of viewing your assessment data to make informed instructional decisions. Easy to

read charts, strategies, videos and recommended lesson plans make it simple to identify areas of strength and weakness to improve student learning.

- B. Student Achievement** - Strategies that are based on research and that integrate technology into curricula and instruction for purposes of improving student academic achievement and a timeline for the integration.

The district provides all students with a rich and rigorous academic environment directly aligned to grade-level knowledge and skills established by the New York State and Federal Standards. The curricular goals for this plan are tied to the Academic Content Standards, which are measured by state mandated norm-referenced testing, district-wide and site-based curriculum-referenced assessment systems (DIBELS, Castle Learning, Guided Reading, AIMS).

Curricular Goals (reading/language arts, math, science, social science)	Student Population Focus	State/District and/or Site-Based Assessment(s) Measuring Goal
Increase Students' Reading/Language Arts Proficiency	All Students	NYS Assessments, DIBELS, Castle Learning, Guided Reading
Increase Students' Writing Proficiency	All Students	NYS Assessments
Increase Math Proficiency	Special Education Students	NYS Assessments, AIMS
Increase Students' Information Literacy	7-12 Students	Assignments, Portfolios, Student Surveys

Technology classes at the elementary campuses are intended to prepare students to meet the challenges of higher education and ultimately the workplace, by introducing them to technology concepts and tools. At all grade levels and classes there is curriculum integration using word processing, spreadsheet, presentation, and desktop publishing software. The Internet is used for research, communication, virtual field trips, Web Quests, collaborative projects, and a variety of other educational purposes. As our teachers and students become more computer literate our aim is to increase the use of technology as a means of achieving instructional goals.

The technology integrator works with teachers and classes to infuse lessons with technology rich experiences in keyboarding, computer use, technology vocabulary, and Microsoft Office. Lessons revolve around an integrated technology plan (Appendix A & E) within the curriculum to enhance the classroom experience with the uses of technology and appropriate use of information found on the Internet.

The goal of instructional technology in grades 7 and 8 is to continue preparing students to meet the challenges of higher education. Currently subject area teachers integrate technology into their curriculum on an individual basis. As our students coming up from the elementary school arrive with more fully developed computer skills, full integration into core curriculum areas will occur. Individual teachers bring their students into available labs to enhance their lessons with the tools provided by MS Office software, the Internet and online databases. All 8th grade students are required to enroll in **Gateway to Technology (GTT)** courses through the **Project Lead the Way (PLTW) Program** that our secondary school participates in. This is described in more detail in section C.

A regular schedule of business classes include Keyboarding and Computer Applications where Microsoft Office is utilized on a daily basis. Additionally, Accounting I and Accounting II integrate Automated Accounting software with the traditional methods to incorporate technology into accounting. Financial Decision Making, Introduction to Occupations, Business Law, and Introduction to Business use the Internet and Microsoft Office to gather and present information on a variety of personal, career, and financial topics.

There are regularly scheduled classes in a number of specialized areas such as:

- Macromedia Studio (Dreamweaver, Flash, Fireworks) and Macromedia Director.
- Video Production
- PLTW (Project Lead The Way) classes

Teachers have their students make extensive use of the student stations in their classrooms. Music teachers use computers to research information on composers, availability and choices of arrangements, and product reviews of new equipment. Language teachers support their curriculum with Wikispaces and interactive whiteboard lessons. Art teachers use Adobe Photoshop, scanners, Graphic Design, and digital photography. Home And Careers teachers use Internet for researching and presenting issues such as family crisis, Central American cuisine, fashion design, drugs and diseases. English and Social Studies teachers make extensive use of Internet resources for writing and research in addition to the online databases that our district subscribe to as well as web 2.0 tools and Smartboards. Science teachers use Flex Cams, LCD Projectors, Online Virtual Biology Labs, Laserdiscs, and extensive use of online research resources. SENTO Smart's automatic response system is used throughout the curriculum for obtaining data reference points in many disciplines. Special Education teachers use Internet scavenger hunts and PowerPoint presentations as a regular part of their teaching strategies. They also use specific websites that claim to help improve academic achievements. The Math department employs interactive devices such as Smartboards and SENTOs to engage their students in learning.

Teachers also bring their classes on a regular basis to the available computer labs for more extensive use of technology based tools such as the Internet, instructional software and a number of online databases.

Internet Safety courses are integrated into the Health and Safety classes as well as Home and Careers and Library curriculum.

ISTE's National Educational Technology Standards NETS have served as a roadmap for improved teaching and learning by educators in this district and throughout the United States.
[National Educational Technology Standards \(NETS.S\) and Performance Indicators for Students](#)

2010-2013 Timeline

- Keyboarding
- E-Pals
- Basic Computer Integration
- Microsoft Office
- Learning.com
- Virtual Worlds
- Wikis
- Media Players
- Internet Safety Portal
- Pre-Cad programming
- Advanced Medial Software
- Presentations
- Portfolio building
- Video Conferencing
- Science/ Handheld/laptop/probes
- Pre-engineering technology (for example Lego products)

K- 6 Technology Plan and Timeline (Appendix A)

C. Technology Delivery- Strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance learning technologies.

SWCSD participates in the **Project Lead the Way (PLTW)** program. On a middle school level the **Gateway to Technology (GTT)** program addresses the interest and energy of middle school students, while incorporating national standards in math, science and technology. GTT is “activity oriented” to show students how technology is used in engineering to solve everyday problems. There are five independent 9-week instructional units (plus the sixth, **Energy and the Environment**, set for release in Fall 2010) that excite and motivate students to use their

imaginations and teach them to be creative and innovative, while gaining the skills they need to develop, produce and use products and services. The current Gateway courses are **Design and Modeling, the Magic of Electrons, the Science of Technology, and Automation and Robotics, and Flight and Space**. Courses for this program are offered for grades 7-8 which prepares students for taking the more demanding work offered on the high school level. The units are taught in conjunction with a rigorous academic curriculum. The technology teachers involved in this program attend yearly training sessions at RIT in Rochester every summer on an as needed basis.

The High School Program is designed as a four year sequence of courses which, when combined with traditional mathematics and science courses in high school, introduces students to the scope, rigor and discipline of engineering prior to entering college. However, those not intending to pursue further formal education benefit greatly from the knowledge and logical thought processes that result from taking some or all of the courses provided in the curriculum. We are currently in our sixth year of offering classes, and students are able to take (a) **Introduction to Engineering Design** - a course that teaches problem-solving skills using a design development process. Models of product solutions are created analyzed and communicated using solid modeling computer design software. In NYS, the course is called **Design and Drawing for Production** and follows the syllabus developed by the State Education Department. (b) **Computer Integrated Manufacturing** - A course that applies principles of robotics and automation. The course builds on computer solid modeling skills developed in Introduction to Engineering Design, and Design and Drawing for Production. Students use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing, and design analysis are included. Elective courses added over the last two years are **Digital Electronics** (teaches applied logic through work with electronic circuitry), **Principles of Engineering** (explores technology systems and manufacturing processes), and **Biotechnical Engineering** more advanced skills in biology, physics, technology, and mathematics).

With the rapid advance in computer technology and access to the Internet, learning is no longer confined to traditional places such as classrooms, or to typical delivery models such as face-to-face instruction. Sullivan West utilizes distance learning in a variety of ways to meet the needs of our staff, students and community. A wealth of online courses is approved annually for our staff to meet and exceed their professional development requirements. A county wide E-learning committee has been formed to spearhead distant learning initiatives for our students and the community at large.

- D. Parental Communications and Community Relations- Strategies to promote parental involvement and to increase communication with parents and community, including a

description of how parents and community will be informed of the technology to be used with students.

The district is committed to using technology to communicate, collaborate, and share resources. The district officially launched its webpage in 2002 for staff, students and community, encouraging all central departments and classroom teachers to post their informational resources and documents for all to access, anytime, anyplace.

In 2007, SWCSD began providing access to a secure, web-based email system for our staff, to communicate and share information throughout the district. The Webmail interface allows staff to access their email from any computer. As a result, demand throughout the district is continually rising for access to more advanced technology tools to communicate and share information. A daily bulletin is distributed electronically, attendance is emailed to all staff and weekly meetings reminders are transmitted from the office.

Teacher web pages put learning in the hands of students and make them feel proactive in their education. Students and parents can assess assignments away from school to continue their educational progress and to enhance lessons or ongoing themes in the classroom. All teachers are encouraged to maintain a webpage with current lessons, assignments and upcoming events.

The purpose of the Alumni page is to maintain and promote bonds amongst alumni members from the three merged districts, Delaware Valley CS, Narrowsburg CS and Jeffersonville-Youngsville CS and graduates of Sullivan West CSD. This serves to strengthen relations within our communities. Announcements for gatherings, updated information on registered alumni and reunion calendars are maintained.

Sullivan West web page host links to several of our enterprise portals, (Web-based interface for users). These links allow for anytime access to an array of web-based programs.

MYLearningPlan (MLP) is a web-based service for tracking professional development activities for k-12 school districts. Here at Sullivan West we find it to be an effective Internet service that helps organize and manage our professional development.

K-12 Alerts is a real-time delivery of school emergency messaging to parents, community and staff. With the creation of K12 Alerts®, our district is able to communicate important messages to parents in a matter of seconds. The information is accessed through work and home emails, text messaging to cell phones and telephones. As the system evolves in our district list are created to allow subgroups to be contacted or polled. Coaches will be able to send game/practice reminders to only their athletes. Bus groups can be contacted in emergencies and teachers can send friendly updates to their student homes.

The K12 Alerts® Parent portal enables parents to maintain their emergency contact information and children's information online 24/7 for district broadcasts. The Parent portal supports multiple languages so that parents who speak a different language may sign-up online and designate their language of choice.

The New York State Education Department's Virtual Learning System encourages the use of the Internet as a tool for teaching and learning and to assist classroom teachers in locating Internet resources for instruction. VLS offers the full text of New York State's learning standards with their key ideas and performance indicators, as well as alternate performance indicators for students with severe disabilities. It provides resources that classroom teachers can use to support preK-12 standards-based instruction, such as sample tasks, learning experiences and lesson plans.

E. One of the goals of the SWCSD Strategic Plan *Number 5 – Stakeholder Partnerships* is to extend educational opportunities to the districts adult students and their families.

The Community Partnership Committee hopes to design an education plan based on need, goals, and abilities. The Adult Education program will focus on trainings and support tutors who volunteer their services to assist adult learners in our community. To accomplish our mission we will establish and nurture valuable partnerships among students, parents, administration, faculty, staff, and other stakeholders for the benefit of our students and community.

- Participation in school and District meetings and functions
- Annual Budget Vote Participation
- District Website
- Stakeholder Satisfaction
- Community Volunteers

Link to: [Sullivan West Central School District Strategic Plan](#)

F. It's very important to teach the proper skills to children and so that the Internet can be used safely and appropriately. Realizing that the Internet can be a useful tool for kids, but can also be a dangerous place, the district has added an [Internet Safety portal](#) to the website. First introduced to staff and later to parents the portal is available for anytime anywhere learning. Simple K12© Protecting Students in the 21st century is a comprehensive, online internet safety program that involves students, teachers, and parents. The curriculum is designed to keep teens safe online and with their cell phones. In addition to the online curriculum and training lessons, the program includes assessments, quizzes, and a safety pledge for students, safety plans for teachers, and a self-assessment and resources for parents.

The program offers curriculum and training on the following topic areas:

- Staying safe from online predators
- Preventing and dealing with cyber bullying
- Avoiding inappropriate sites
- Recognizing and handling internet addiction
- Sharing online videos safely
- Protecting computer data
- Surfing the web safely
- Protecting credit card information (online auctions and shopping)
- Avoiding identity theft
- Staying safe with online gaming
- Recognizing internet and email scams and frauds
- Identifying internet hoaxes
- Staying away from online gambling
- Staying safe while using chat rooms, IMs, and Email
- Understanding dangers in newsgroups, bulletin boards, and online forums
- Blogging safely
- Using cell phones safely and avoiding "sexting"
- Keeping information private and staying safe on social networks (MySpace, Facebook, Twitter)
- Recognizing dangers of downloading sites
- Learning about viruses, malware, and adware
- Staying safe and legal using peer-to-peer networks
- Avoiding plagiarism and citing sources properly
- Avoiding unethical practices involving copyrights and paper mills
- Using monitoring and filtering tools (for parents and teachers only)

Section II Professional Development

G. Sustained professional development for teachers, principals, administrators and school Library media personnel to ensure that staff know how to use the new technologies to improve education or library services

Training for Teachers: In order for technology to become thoroughly integrated into our district curriculum, we must engage upon a systemic program of staff development. We believe that all teachers need to have the technology skills necessary to incorporate multimedia, the Internet, and sophisticated curriculum software into their classes. Moving well beyond the basic operation of technology devices, our teachers need to develop the ideas and visions necessary to see how technology can truly enrich instruction. This section

describes how we will develop these skills and visions within our teaching staff through support, training, and other opportunities.

To establish guidelines and specifications for training, we have developed self-evaluating instruments to enable teachers, staff and administrators to assess their level of technology skills, and map what they need to learn. Appendix B has a sample of a self-evaluating rubric for teachers.

Our district provides financial incentives for educators who completes any (pre-approved) graduate-level credit or in-service hours. Current practices include credits obtained through distance learning, on-line courses, and those offered through traditional classroom settings.

In conjunction with the professional development team, we will continue to effectively use district Superintendent Conference days and half days to instruct teachers in technology use and ways to effectively integrate technology and access information within the curriculum. Many of the technology based training sessions for in-service conference days will come from this group. We are continually developing a list of workshops that can be offered on during training opportunities. (Just a few examples are: Smart product training, Castle Learning, MS Office, Internet Safety for teachers and aides...)

We use the recent work of the National Council for Accreditation of Teacher Education and others such as ISTE to define teacher competencies in areas of instructional technology. See [NETS for Teachers](#).

- Our teachers are currently utilizing the many technology training offerings from Model Schools, Teacher Center, and online courses offered through “Accelerate U” (BOCES Model Schools). BOCES Instructional Support including Model Schools supports trainers to work during the school day with teachers wanting to learn new techniques using technology. We plan to continue to work collaboratively with BOCES to provide training appropriate for staff needs.
- To encourage use and development of technology in the classroom the district has adopted an internal technology grant procedure. Sullivan West technology integration grants are intended to support innovative of technology to enhance student learning through classroom or community-based projects. Technology should include, but not be limited to, computers, multi-media, and the Internet. (APP D)
- ClassLink Technologies offer a variety of training sessions that can be taken advantage of as part of an in-service roster. Their online teacher plan book “Ontrack” aligns plans to state standards and provides administration overview of plans being developed. Professional learning groups can take advantage of these collaborative online plan books.

H. Services, software, other electronically delivered learning materials and print resources that will be acquired to ensure successful and effective uses of technology

- SWCSD participates in the Sullivan BOCES library COSER; consequently, all campuses libraries are networked and automated. The library card catalogs and circulation system are maintained on a BOCES server with remote access available on every server based desktop session, which means they are available for students at school and when logging on remotely at home as well. The network also provides access to the on-line databases our district subscribes to (Appendix C).
- The Guidance Department has a student resource room with thin clients (see section J for description of a Thin Client) providing Internet access. This permits seniors to submit applications to participating schools on line. Guidance counselors and their secretaries have access to the SasiXP School Management System from their networked workstations. In 2010-2011 we will transition to eSchoolData student management system. This web based system is capable of creating the master and other schedules, keeping grades, and generates and prints out student progress and grade reports. This system includes a parent portal that permits parents to view their child's schedule, grades and attendance.
- The high school has four to seven data drops in each classroom; a business practices and computer applications lab (20 thin clients), a multipurpose computer lab (24 thin clients) attached to the library-media center (25 thin clients), a CAD/Computer Applications lab (23 PCs) and a CIM (Computer Integrated Manufacturing) lab with a computer controlled Intellitek Super ProLight 1000 milling machine. The Main Distribution Frame (MDF) accommodates all the servers that handle applications, data, IP telephony, and network and Internet connectivity for all the campuses (the master domain controllers, data servers, terminal servers, IP servers, and Internet and mail servers).
- Clusters of 4 -7 networked multimedia thin client student stations and one teacher station are in every classroom. The teacher has a fully functioning IP phone that provides intra-campus, inter-campus and conventional outside world communication. All classrooms have a cable connected TV and a DVD/VCR player. Many classrooms have mounted LCD projectors and Smart Equipment.
- We subscribe to Castlelearning.com, a web based review site that provides students (grades 3-12) excellent exercises in mathematics, science, social studies, and English. This site permits teachers to set up tests and quizzes and assign them to students in groups or classes to enhance the review process.
- As a participant in Sullivan BOCES Model Schools program and Teacher Center activities, our teachers apply for grants available to them, and many of our teachers have been awarded these mini-grants.
- We have implemented a wireless overlay in both the elementary and the high school. This provides campus-wide wireless access. Teachers and administrators can now access

our network without being tied down to a static location. This also permits us to use Cisco wireless phones on campus, a great benefit for personnel who are mobile such as the principal, technician or custodial staff. In addition it will permit experimenting with some leading edge technologies such as wireless thin clients. A number of Netbooks are available for teachers and students to use.

- We currently have a full-time technician available district wide.
- ClassLink Technologies as part of their server based implementation provide technical support for the entire school year. This includes any software and hardware issues that may occur. We anticipate contracting with them for these services for the coming school years as well.
- In 2007-2008 school years we implemented the [Read Naturally®](#) server based software package that helps students of all ages and abilities—whether special education, ELL, Title I, or mainstream—to improve their reading skills, gain confidence, and transform their attitudes toward school and learning. Based on its powerful strategy that combines teacher modeling, repeated reading, and assessment and progress monitoring, the Read Naturally software supports and reinforces the essential components of reading as outlined by the National Reading Panel. These include phonemic awareness, phonics, fluency, vocabulary, and comprehension.
- On a regular basis, we explore and provide suitable assistive devices for special needs students. For example, in an inclusion classroom, having text-to-speech software that transcribes written assignments/tests to CDs, thus enabling students with reading disabilities to use their good auditory skills to do the work they need to do. Also using speech to text software for students with writing difficulties. We have provided wireless hearing enhancement devices for students with auditory difficulties.

Section III Infrastructure, Hardware, Technical Support and Software

I. We currently have a 200 MB Wide Area Network linking each campus through Time Warner's fiber cables, and to Sullivan County BOCES and broadband Internet access. To meet the challenge posed by our geographically isolated campuses, we have implemented telephony and data access technologies that leverage this WAN connectivity. The four county BOCES consortium we participate in (Orange, Ulster, Dutchess and Sullivan) provides broadband Internet access. (Figures 5 and 6)

We have implemented Cisco Systems Voice over IP (VOIP) for a telephony solution. This has permitted us to put a fully functional IP phone in every classroom and office, thus allowing our administrators, faculty, and staff members to call each other on any campus, or to make outgoing calls. Teachers have the ability to call a parent from their rooms if the need exists, and parents can communicate with the teachers. We have implemented a mail server so as to provide e-mail accounts for all faculty, staff and administrators.

J. To ensure that all members of our learning community (students, faculty, staff, and Administrators) have readily available access to all applications and data of concern to them, we have implemented “Thin Client” computing based on a server centered environment installed by ClassLink Technologies of Weehawken, NJ. Software applications are driven by the server rather than installed on individual computers. A thin client computer is a simple, reliable hardware device that connects to a server (typically running Microsoft Windows 2003 Server software) where applications are stored and processed. A thin client has no moving parts, no hard drive, floppy drive, or CD-ROM drive, and requires a monitor, keyboard, and mouse. Thin clients are less expensive and use much less energy (1/5th) than regular desktop computers and they require almost no maintenance or upgrades. When you turn on a thin client, you are served a virtual desktop running on an application server, complete with a Start button and application software that performs equal to or better than a typical PC. PCs or Macs can access the same server applications and data as the thin clients do.

By using servers running Windows 2003 and Citrix MetaFrame, we are able to use dedicated Thin Clients and Windows based PCs to access a uniform server based individual desktop. This gives authenticated users the applications they need (e.g. MS Office, Internet Explorer, Macromedia Studio) and their data files at any location on any campus on any client. This system also permits students and teachers to access these services remotely from any location via the Internet. Administrators are also provided remote access to student management software. Inventory lists for each campus are included in Appendix E. (Figures 1, 2, 3 and 4)

In years 2008-2009 and 2009-2010 we have implemented a major upgrade of all our core infrastructure components (terminal servers, data servers, domain controllers, etc.) by replacing old equipment with new units where appropriate and virtualizing the critical servers. All older (6+ years) teacher PCs are being replaced by new ones.

Elementary School: Grades K-6 utilizes our current K-6 Technology Curriculum Plan (Appendix A). Each student and teacher has a network login providing access to the servers both on-site and from home via an internet connection for data storage and application use, such as MS Office and Internet Explorer. All classrooms and offices have fully functional IP phones.

Current Inventory of Equipment and Services

- **Academic Services:** This campus has approximately 650 K-6 students and 70 teachers. Each classroom has a teacher station, and an IP phone. We have six terminal servers providing access to 320 active nodes campus wide. Each classroom has four student stations in a combination of PCs, Macs or thin clients. There are three labs available; two with 26 and one with 30 thin clients with networked color and monochrome printers. The K-3 library has four thin clients, two PCs, and a networked printer. The Grades 4-6 library has 12 thin clients, a Smartboard, and a network printer. Network logins provide

access to the servers for data storage and application use. Currently MS Office and broadband Internet access are available to all teachers, students and staff. We are currently exploring appropriate software to install on our application servers. A number of classrooms utilize interactive Smartboards, LCD projectors and Smart Response system.

- **Administrative Services:** The district offices are located at the elementary school campus.
- **Business Office** – The district transitioned to WinCap business management software this year. This is the software that will be used by the Central Business Office located at Sullivan County BOCES in the school year 2010-2011; our district is one of the county districts participating in this plan.
- **Student Transportation** – The district is using the VersaTrans bus routing software to improve efficiencies, cut costs, provide more service, and comply with mounting government regulations.
- **Food Services** – The district is using NutriKids foodservice management software and Point of Sale stations to better manage food services.
- **K12 Alerts** – The district has implemented K12 Alerts Emergency Messaging System for Parents, Community, and Staff. It permits the sending of delays, cancellations, and real-time emergency messaging to parents, community residents and staff via work and home emails, text messaging to cell phones and telephones
- **MYLearningPlan** – All faculty, staff and administrators have MYLearningPlan accounts to submit requests for conference days, training opportunities, and other submissions that may qualify for in-service credits or NYS required in-service hours.

Lake Huntington Secondary Campus:

Current Inventory of Equipment and Services

- The **MDF (Main Distribution Frame)** on this campus serves as the hub for the local LAN and for the district WAN. Connections to the Internet are provided by a 100 MB connection via Time-Warner cable to Sullivan County BOCES which provides these services. The main VOIP servers and switches are implemented here. A backup VOIP server is located at the Jeffersonville campus. Internet filtering services for the district are provided by an I-Prism server located here as well.
- The campus has a wireless overlay with 16 access points, thus enabling laptops and PDAs access to our network. In school year 2006-2007 we implemented the use of PDAs for administrators to be able to access the SasiXP student management system via Wi-Fi using PrinciPalm software. We have a number of Cisco Wi-Fi phones as well giving administrators mobile access to our VOIP system as needed.
- The newly designed NYS standards based curriculum assumes the availability of computers and resources on the Internet and the library for all of its work and is integral to the completion of all projects. Our technology implementation at the high

school encompasses 6 terminal servers supporting access to 300 nodes, a combination of fully functional PCs and thin clients. Grades 7-12 have approximately 670 students and a total of 50 teachers. The terminal servers are running software such as MS Office, Macromedia Studio, Macromedia Director, Adobe Photoshop and PageMaker. We have also installed the I-Text version of World History Today at the behest of one of our Social Studies teachers on our terminal servers. This gives students access to their text book at any station on campus or remotely. We are encouraging other teachers with similar text book software to make use of our terminal servers in the same way.

- Each classroom has a teacher PC, 4 student stations (thin clients), and a network printer. The classrooms also have an IP phone, a TV and a VCR/DVD player. Teachers have access to District Student Management Software (ClassXP) on their desktops for purposes of period by period attendance and adding grades at the end of marking periods. This is also made available on the Citrix/ClassLink Desktop so that teachers can remotely access this module at home. Teachers will have access to the new Student Management System, eSchoolData in 2010-2011. Training on aspects of the system will start as early as May 2010.
- All administrative and office staff personnel have IP phones and PCs with access to the terminal servers, and to SasiXP student management software. This provides access to student management systems anywhere on any campus as well as from remote locations. All SasiXP functions will fully transition to eSchoolData in 2010-2011.
- The library has 26 thin clients for student use connected to networked printers. A 24 thin client lab is attached to the library for scheduled classes as well as for teachers to reserve to bring groups of students or whole classes for technology infused sessions.
- The Business Lab has 20-thin clients linked to a networked printer using Microsoft Office, Internet Explorer. This lab is available to any teacher when it is not in use for regularly scheduled business classes.
- A CAD/Computer Applications lab with 23 PCs running Autodesk Inventor (for use by PLTW students) in addition to MS Office. The lab has a large format laser printer (HP 5100) and a color HP Plotter (HP DesignJet 800) installed for use by the PLTW students.
- A CIM (Computer Integrated Manufacturing) lab with 20 PCs running Autodesk Inventor, and CIM software RoboCell, ProLight 1000, and EdgeCam. A computer controlled milling machine (Intellitek ProLight 1000) provides students the ability to model a variety of materials (hard wax, aluminum, and brass) according to their designs. The PCs also have programming software (Visual Basic, C++, and Visual Java) loaded for classes in programming.

Section IV. Funding and Budget

K. Timeline and budget covering the acquisition, implementation, and interoperability. All the district systems in place have been implemented as open systems that are compatible with other districts in Sullivan County and the systems in use by the 4-County consortium (Dutchess, Orange, Ulster, and Sullivan) that provides many of our services. Major Technology purchases (anything that connects to a network of PC) are routed through OUBOCES Learning Technologies COSER. Data (such as Student Management Systems, IEP tracking...) are supported through the Mid Hudson Regional Information Center (MHRIC). Sullivan County BOCES supports technology initiatives through Model Schools, Telecom COSER (WAN connectivity), and MLP support.

Over the past three years (2007-2010) our district has implemented a comprehensive plan of replacing older terminal servers and PCs (6+ years) and virtualized key servers. This will continue into year 2010-2011. A major transition to the new Student Management System (eSchoolData) is underway this year and will go live in 2010-2011 (covered by a different section of the budget). The budget proposed for technology in year 2010-2011 is listed below:

Proposed Sullivan West CSD Technology Budget 2010-2011

Account Name	Proposed Budget
Payroll	230,000.00
Instruction	
Computer-Assisted Instruction	
SA COMPUTER HARDWARE	25,000.00
CONTRACTUAL	32,000.00
COMPUTER SUPPLIES	15,000.00
SA COMPUTER SOFTWARE	20,000.00
BOCES Budget	
ULSTER MICRO COMP.SERV.BASE	5000.00
ULSTER TSS BASIC SERV RWADA	3000.00
ORANGE BOCES - Learning Technology	250,000.00
ORANGE BOCES - Learning Technology ARRA	60,000.00
ULSTER BOCES-SCANNER MT XC	11,700.00
ULSTER BOCES-SYST.IMPROV XC	45,000.00
ULSTER BOCES-Data Warehouse	22,000.00
Sullivan BOCES-Telecom (WAN connect)	60,000.00
Total: Computer-Assisted Instruction	\$ 778,700.00

All hardware and software expenses that exceed the state aided limits on software and hardware are purchased through the OUBOCES Learning Technologies. Many of the contractual services required for maintenance and upgrades are purchased through OUBOCES and SULBOCES COSERS. Projected expenses for years 2011-2013 are listed in APP F.

The basic strategy is to maximize all state aid-able funds to support technology implementation, optimize BOCES resources for equipment and services, and maintain local funds allocated for personnel to manage our extensive technology program.

Section V. Monitoring and Evaluation:

One of the goals of SWCSD Professional Development Team (PDT) is to communicate and develop knowledge by means of curriculum and professional development. In the development of curriculum and training for staff and students the evaluations are integrated and reach a joint culmination. It is therefore extremely important to SWCSD (and the community it serves) for its trainings to be of an outstanding quality. To measure how effective we are in meeting the requirements of curriculum and professional development and to ensure the best possible standards of teaching and learning the formal methods of monitoring and evaluating teaching and learning include the following:

- [Learning.com](#) (Grades 4-6)
- [Simple Assessment](#) (Grade 6 & 8)
- MLP Workshop Surveys
- Survey Monkey District created surveys
- Internal surveys
- Teacher and Student Self Evaluation (APP B)

Evaluation results are shared through the Professional Development Team, District Leadership Team, Administration, Faculty and Technology Integrator. In the development of curriculum and training for staff and students the evaluations are integrated and reach a joint culmination with regular reports to the Superintendent and annual reports to the Board Of Education.

The Children's Internet Protection Act (CIPA) is a federal law enacted by Congress to address concerns about access to offensive content over the Internet on school and library computers. CIPA imposes certain types of requirements on any school or library that receives funding for Internet access or internal connections from the E-rate program – a program that makes certain communications technology more affordable for eligible schools and libraries. In early 2001, the FCC issued rules implementing CIPA ([Children's Internet Protection Act Pub. L. 106-55](#)).

To ensure a safe online environment the district has installed a filtering server (IPrism) that blocks offensive sites. It can be customized so that sites that require access for special reasons or

classes can be opened when needed (e.g. YouTube), and teachers have override rights on a time limited basis. Overrides can be for a particular station, student, or group of students. The system maintains a log of attempts made to access sites (blocked or unblocked) so reports can be generated to view activities in case of an event. ClassLink also provides a server based service that permits reports on which web sites get the greatest amount of use (useful for finding out if students are using some proxy server to access forbidden sites), and also what applications on the terminal servers are getting used and with what frequency.

The Internet is an “electronic highway” connecting billions of computers and individual subscribers all over the world. Our goal in providing Internet services to students and staff is to enhance innovative education for through access to unique resources. Employees and guests will improve learning and teaching through research, training, communication, collaboration, and dissemination of successful educational practices, methods, and materials. Terms and Conditions are provided in the SWCSD AUP (APP G), so that Internet users are aware of the responsibilities they will assume when using this resource. Responsibilities include efficient, ethical, and legal utilization of the network resources.

As the Technology Team developed this document, we realized implementing such an ambitious plan will require ongoing oversight. The strategies outlined in this Plan should provide the underpinnings for an effective and efficient technology response to the districts goals and objectives. The IT department will focus on the enterprise architecture, security and privacy development, and fiscal discipline over the next five years. Progress will be monitored by the Director throughout the year with annual updates to the Plan. The objectives will be calibrated as needed to respond to changes in the district strategic plan.

As new software and hardware are introduced, keeping our district current, we must acknowledge and respond to the anxieties which result. We acknowledge that the district must foster a culture of mutual respect, trust, and teamwork that demonstrates its commitment to innovation by providing the training and resources necessary to support it.

The members of the Technology Team hope and expect that this Technology Plan will remain useful as a guide for future development, even as its particulars evolve over time.

Sullivan West Secondary School

Network and LAN setup

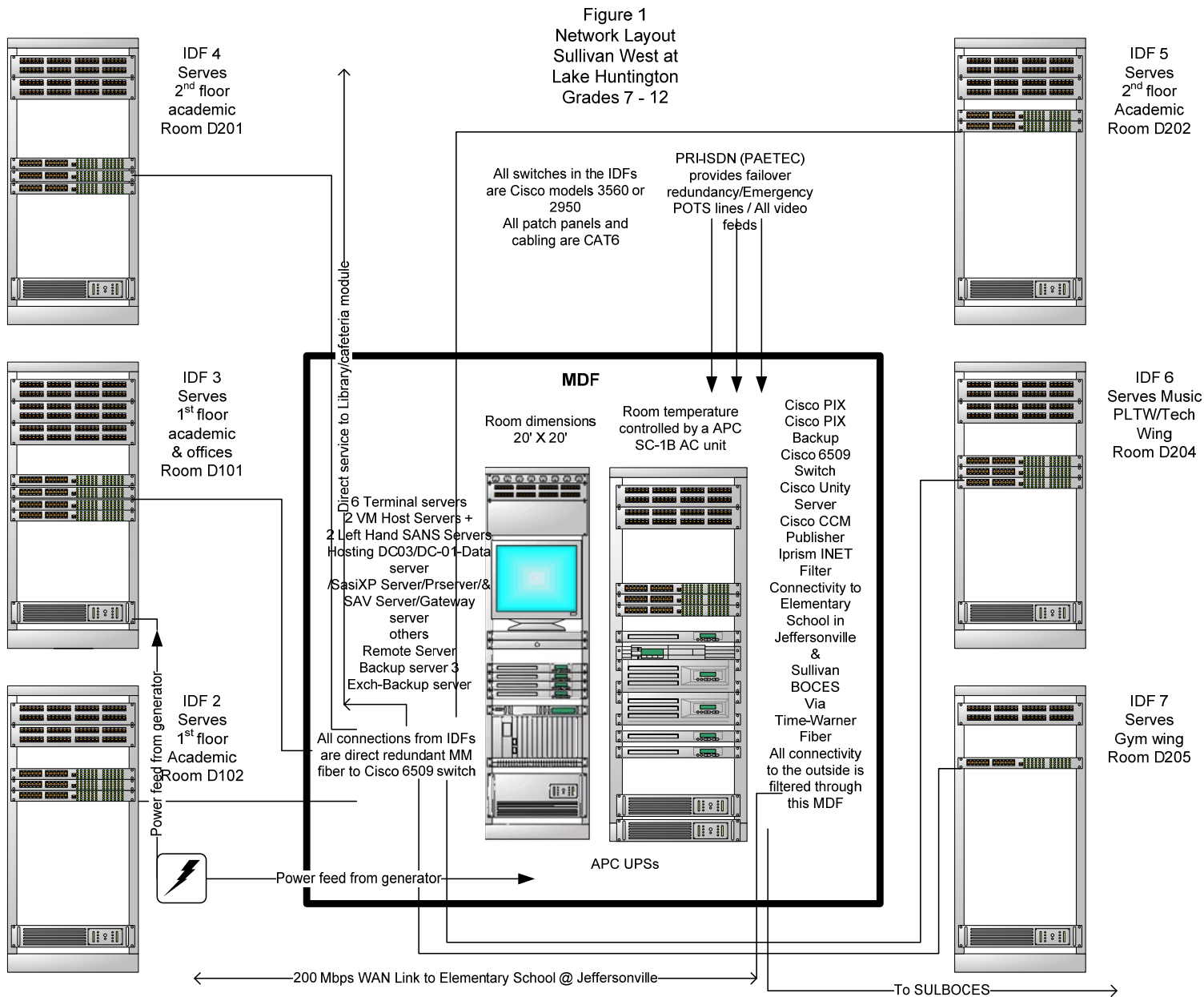


Figure 1
20a

Sullivan West Elementary School

Network and LAN setup

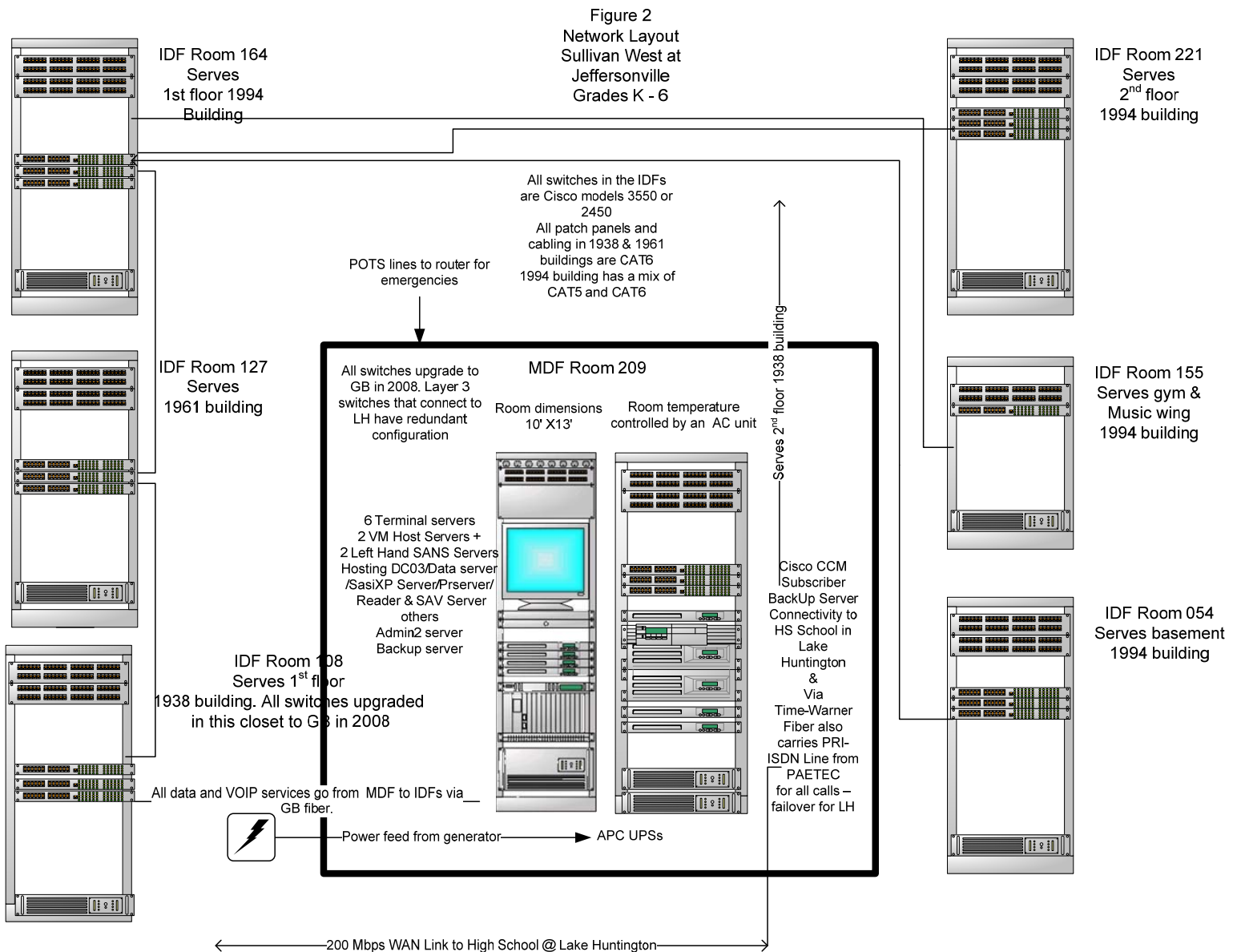


Figure 2

Sullivan West Secondary School

MDF Layout

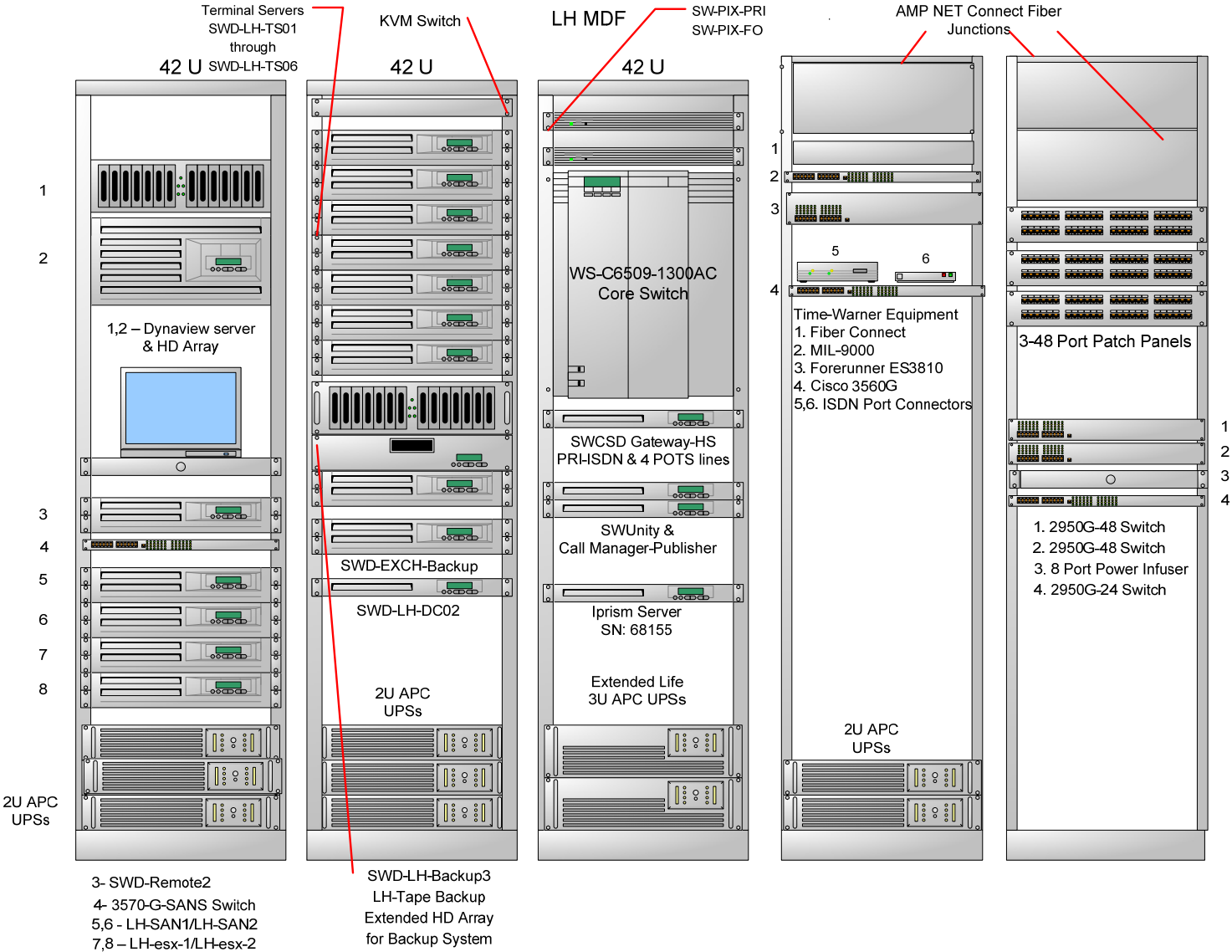


Figure 3

Sullivan West Elementary School

MDF Layout

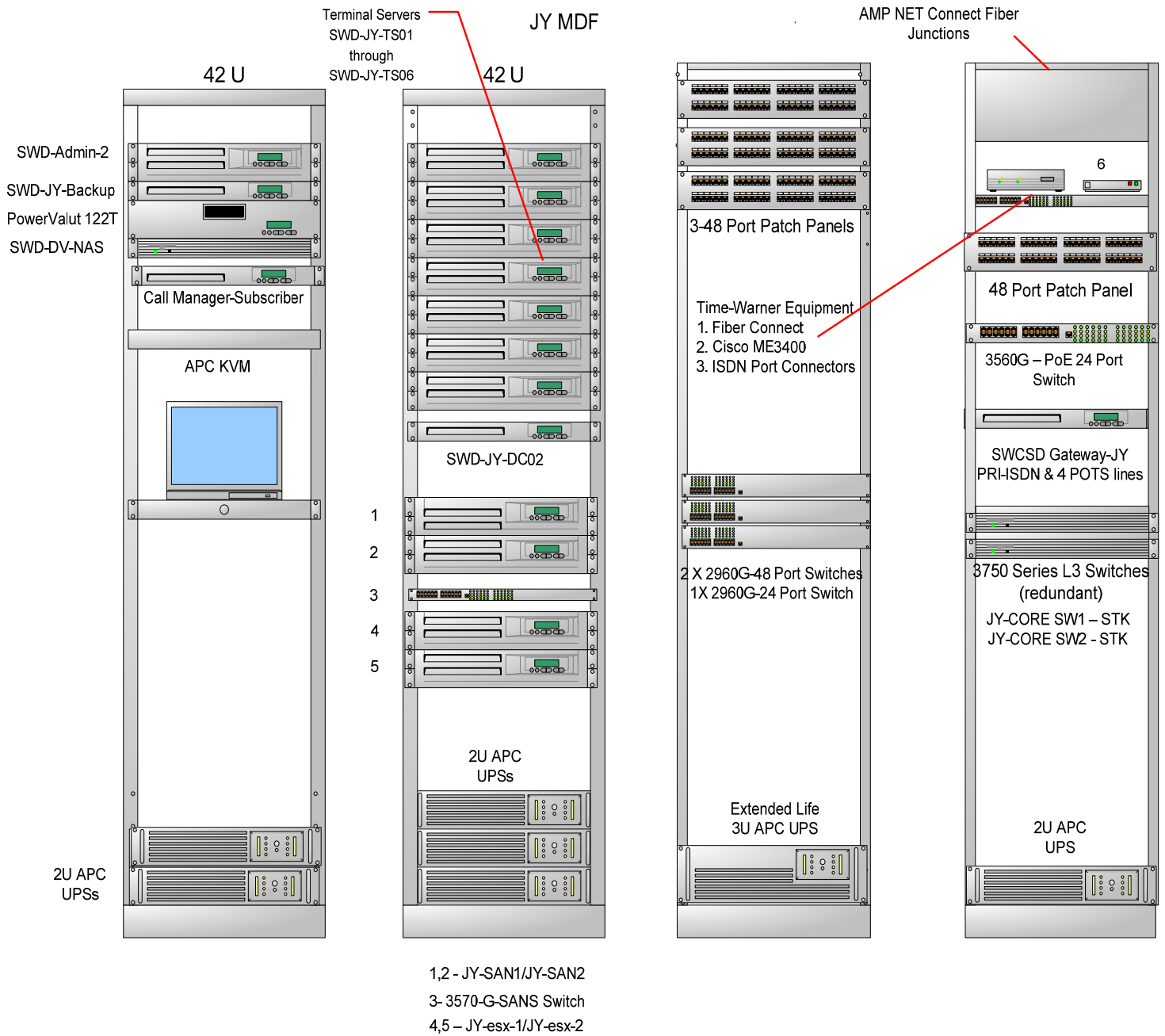
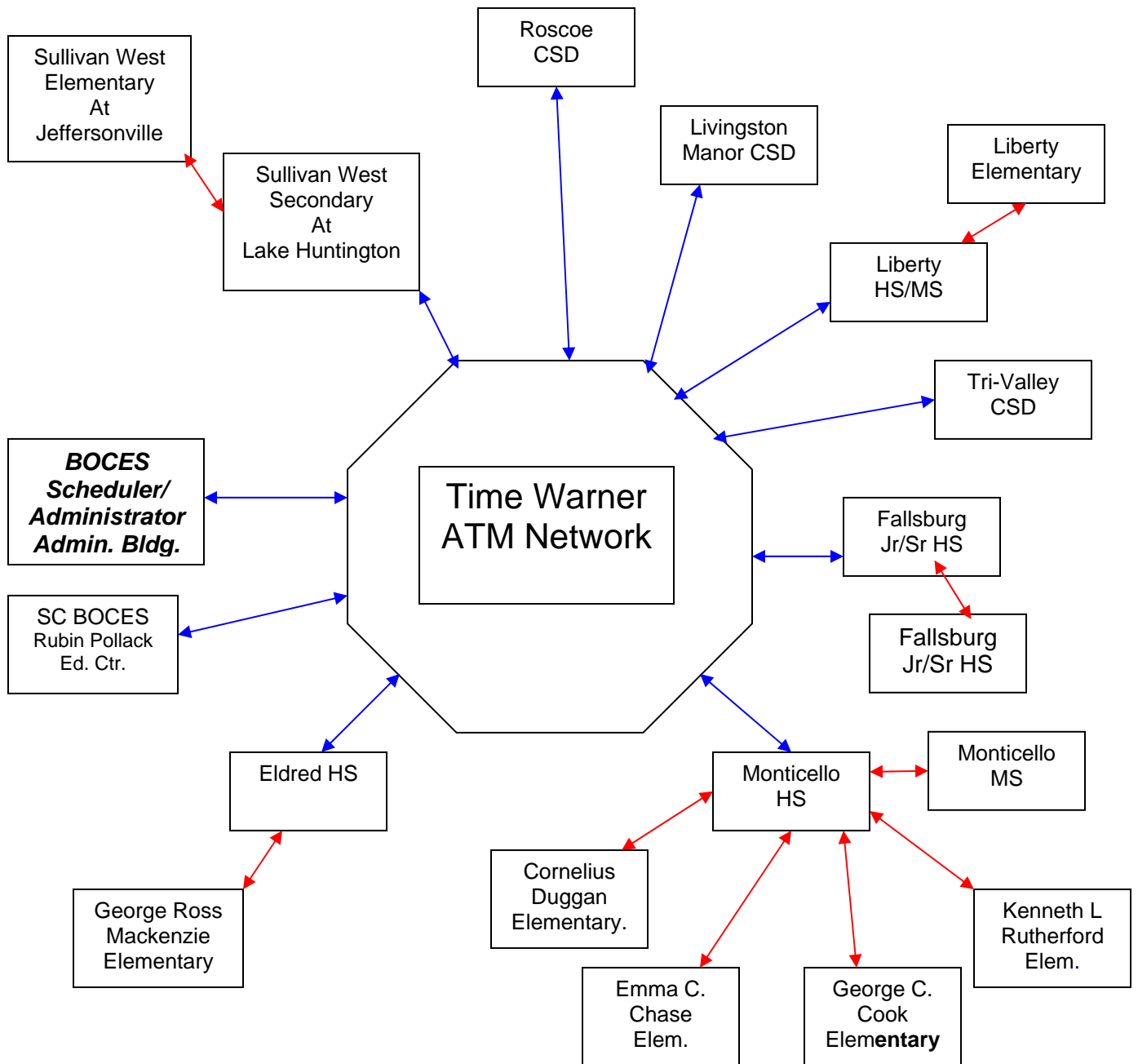


Figure 4

Sullivan County ATM Network

Figure 5



Indicates OC-3c Video/Data Network Service



Indicates 100 Base FX District Area Network

Four County BOCES Network – Logical Diagram of Ring

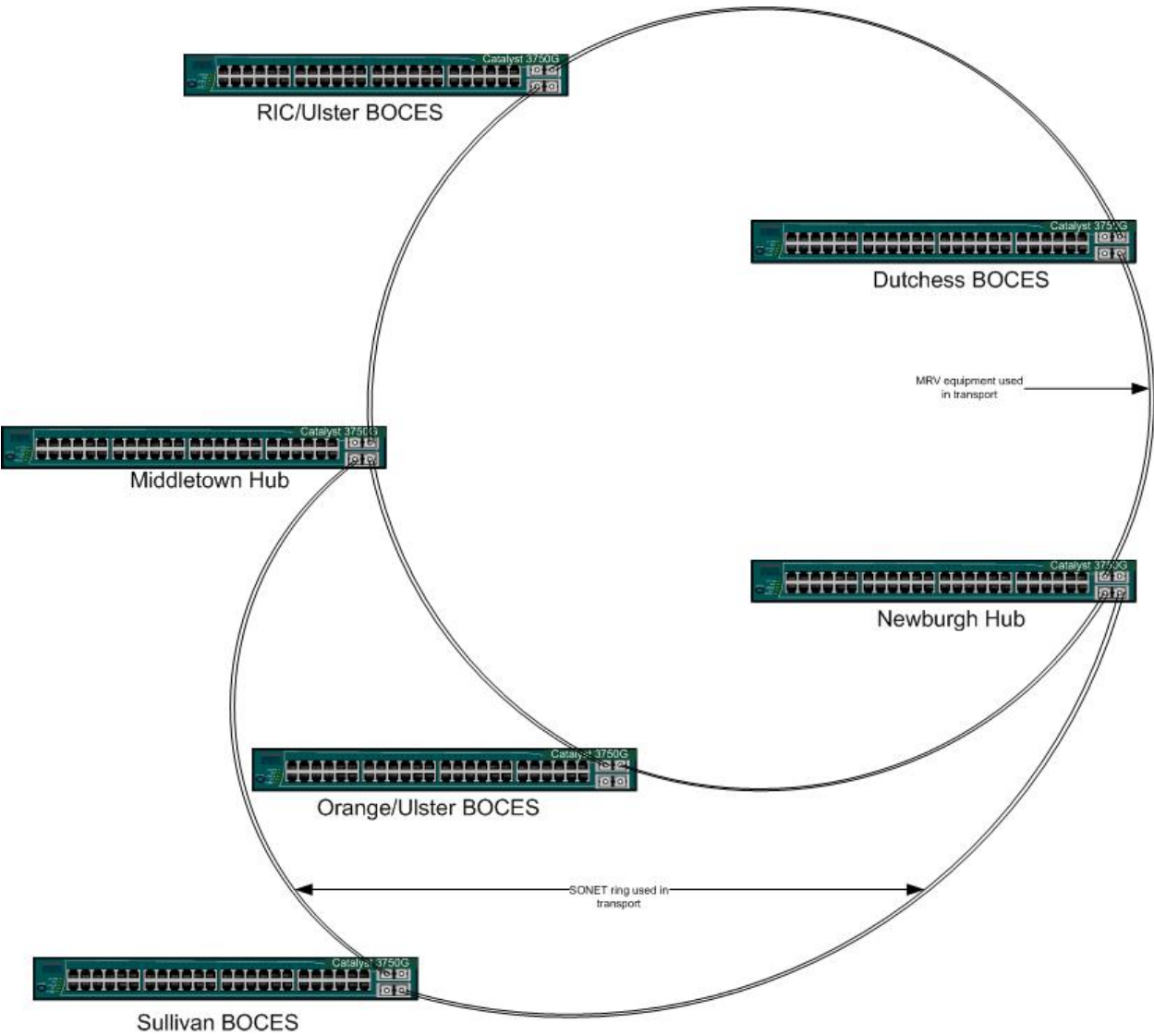


Figure 6

Appendix A

Sullivan West Central School Elementary Technology Curriculum Pre-K – Grade 6

Vision

We envision a learning community committed to the continuous pursuit of excellence and equity, and dedicated to enriching the lives of all students.

Mission

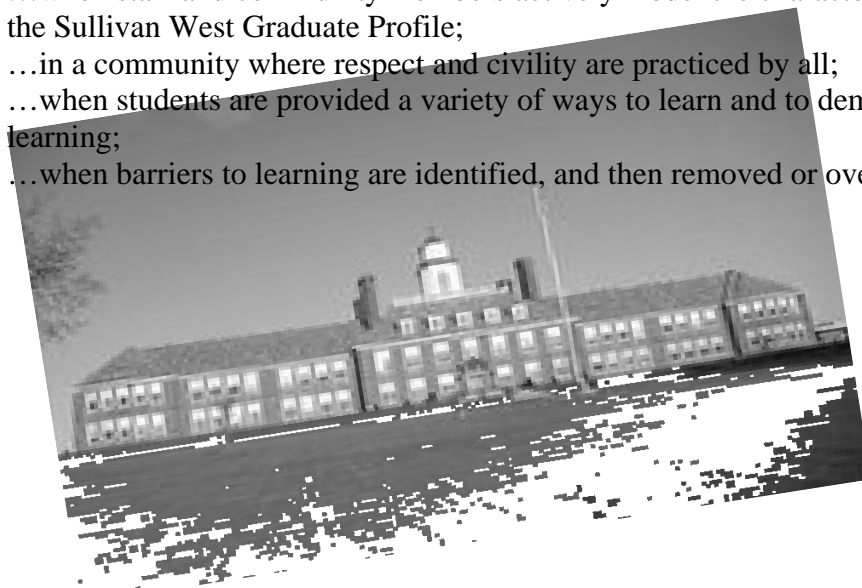
Our district's Mission is to provide a world-class and globally-competitive education for each student through excellence in teaching and learning, supported by the combined efforts of students, parents, educators and community members.

Values and Beliefs

We, the members of the Sullivan West School Community believe that educational excellence is a shared responsibility. We believe that excellence is achievable and is always worth the effort. Most importantly, we have a strong belief that all students can learn and that each individual has unique and unlimited potential. Our values and beliefs serve to guide our actions and behaviors both in the classroom and in the community.

We believe that teaching and learning happen best....

- ...in a safe and caring environment that fosters positive risk-taking;
- ...when expectations are high, well-defined and understood;
- ...when student effort is supported by patience, understanding, and encouragement;
- ...when staff and community members actively model the characteristics encompassed in the Sullivan West Graduate Profile;
- ...in a community where respect and civility are practiced by all;
- ...when students are provided a variety of ways to learn and to demonstrate their learning;
- ...when barriers to learning are identified, and then removed or overcome.



Appendix A

Introduction

Administrative expectations and support are necessary for any successful instructional change to occur in schools. Stated administrative goals for high levels of technology integration by faculty must be communicated explicitly and reinforced by technology access to enable extensive practice, excellent technical support to troubleshoot technical glitches, and quality professional development experiences that are individualized and provided in a comfortable environment. Given these consistent messages of organizational support and clearly communicated expectations by administrators, school-based faculty generally will support the school's technology integration goals (U.S. Department of Education, n.d.; Moursund, & Bielefeldt, 1999). Organizational change in instructional technology integration does require sufficient facilities, resources, access, and support, but successful technology integration will only occur if faculty members have sufficient preparation and planning time (Becker, 1994; Ennis III & Ennis, 1995-6; Ertmer, 1999; Gilmore, 1995; Hunt & Bohlin, 1993; Lawler, Rossett & Hoffman, 1998; Schrum, 1999; Strudler & Wetzler, 1999; Walker, Ennis-Cole, & Ennis III, 2000; Yildirim, 2000).

Sullivan West Central School has demonstrated their willingness to support this change with addition of a .5 elementary technology teacher, sufficient time for curriculum development and a working schedule that allows ample time for team meetings, technology integration and lab time for students and teachers at the K-6 levels.

This proposed multi-year time-line is based on the premise a digital divide exists between the technology skill levels of our current students and staff compared to the skills needed to successfully utilize the technology they will experience in their work, personal and educational settings.

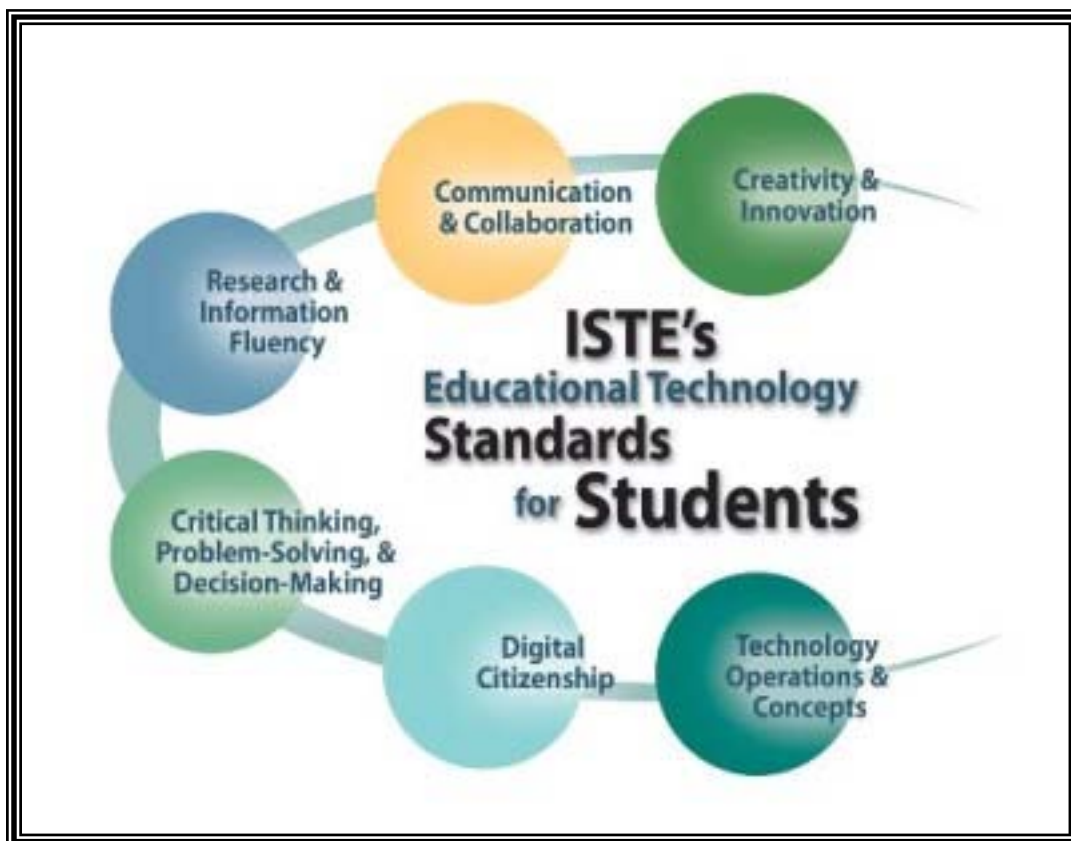
2008-2009

- Keyboarding
- E-Pals
- Basic Computer Integration
- Microsoft Office
- Learning.com
- 2009-2010
- Virtual Worlds
- Wikis
- Media Players
- Pre-Cad programming

2010-2011

- Advanced Medial Software
- Presentations
- Portfolio building
- Video Conferencing
- Science/ Handheld/laptop/probes
- Pre-engineering technology (for example Lego products)
(new technologies as they are developed)

Appendix A



ISTE's National Educational Technology Standards NETS have served as a roadmap for improved teaching and learning by educators throughout the United States. The ISTE Standards were consulted to formulate the framework of this curriculum.
{ <http://www.iste.org/AM/Template.cfm?Section=NETS> }

Appendix A

Nets for students 2007

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Students:

- apply existing knowledge to generate new ideas, products, or processes.
- create original works as a means of personal or group expression.
- use models and simulations to explore complex systems and issues.
- identify trends and forecast possibilities.

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Students:

- interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- develop cultural understanding and global awareness by engaging with learners of other cultures.
- contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information.

Students:

- plan strategies to guide inquiry.
- locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- process data and report results.

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Students:

- identify and define authentic problems and significant questions for investigation.
- plan and manage activities to develop a solution or complete a project.
- collect and analyze data to identify solutions and/or make informed decisions.
- use multiple processes and diverse perspectives to explore alternative solutions.

Appendix A

Nets for students 2007 (Continued)

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

Students:

- advocate and practice safe, legal, and responsible use of information and technology.
- exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- demonstrate personal responsibility for lifelong learning.
- exhibit leadership for digital citizenship.

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations.

Students:

- understand and use technology systems.
- select and use applications effectively and productively.
- troubleshoot systems and applications.
- transfer current knowledge to learning of new technologies.

Appendix A

Scope and Sequence

Experiential Grades PK–3

Proficiency Key: I (Introduction) A (Application) E(Experienced)

The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades PK-3 (Ages 4-8)

Integrated Experience	Activity (ongoing development)	NETS	PK	K	1	2	3	4	5	6
Illustrate and communicate original ideas and stories using digital tools and media-rich resources	Learning.com Read Across America Starfall Little animals activity center Book Flix ABC Ya Dibbles	(1,2)	I	I	A	A	A	E	E	E
Identify, research, and collect data on a subject or issue using digital resources and propose a developmentally appropriate solution	Learning.com Wikipedia.com Google Custom Search	(1,3,4)			I	I	A	A	E	E
Engage in learning activities with learners from multiple cultures through e-mail and other electronic means	Learning.com E-Pals Video Conferencing	(2,6)				I	I	A	E	E
In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area	Learning.com Google Docs Microsoft Office	(1,2,6)		I	I	A	A	A	E	E
Find and evaluate information related to a current or historical person or event using digital resources	Learning.com Google Google Safe Search Yahooligans Harcourt School.com Senior Pals (email)	(3)		I	I	A	E	E	E	E

Appendix A

Integrated Experience	Activity (ongoing development)	NETS	PK	K	1	2	3	4	5	6
Use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals	Learning.com Kidsperation Harcourt School.com	(1,3,4)		I	I	A	A	E	E	E
Demonstrate safe and cooperative use of technology	Learning.com E-Pals	(5)	I	A	A	E	E	E	E	E
Independently apply digital tools and resources to address a variety of tasks and problems	Google Custom Search Kid wings / Owl Pellets	(4,6)			I	I	A	A	E	E
Communicate about technology using developmentally appropriate and accurate terminology	TechWorks	(6)	I	I	A	A	E	E	E	E
Demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites	Active World Google Custom Search Age appropriate learning sites	(6)	I	I	A	A	A	E	E	E

Appendix A

Experiential Grades 4-6

Proficiency Key: I (Introduction) A (Application) E(Experienced)

The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 4-6 (Ages 9-11):

Integrated Experience	Activity (ongoing development)	NETS	PK	K	1	2	3	4	5	6
Produce a media-rich digital story about a significant local event based on first-person interviews	Sandhog Project History Channel Read Across America Microsoft Office Teacher Created Lessons	(1,2,3,4)					I	A	A	E
Use digital-imaging technology to modify or create works of art for use in a digital presentation	Learning.com Digital Cameras Scanners Microsoft Office	(1,2,6)					I	A	A	E
Recognize bias in digital resources while researching an environmental issue with guidance from the teacher	Learning.com Library Curriculum	(3,4)							I	A
Select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses	Learning.com Microsoft Office	(3,4,6)					I	I	A	E
Identify and investigate a global issue and generate possible solutions using digital tools and resources	E-Pals Microsoft Office	(3,4)							I	A
Conduct science experiments using digital instruments and measurement devices	Kid wings / Owl Pellets West Point Bridge Builder	(4,6)							I	A
Conceptualize, guide, and manage individual or group learning projects using digital planning tools with teacher support	Learning.com Kidsperation Microsoft Office	(4,6)							I	A

Appendix A

Integrated Experience	Activity (ongoing development)	NETS	PK	K	1	2	3	4	5	6
Practice injury prevention by applying a variety of ergonomic strategies when using technology	Typing Time Teacher Directed Lessons	(5)						A	E	E
Debate the effect of existing and emerging technologies on individuals, society, and the global community	Learning.com	(5,6)								I
Apply previous knowledge of digital technology operations to analyze and solve current hardware and software problems	Teacher Directed Lessons	(4,6)								I

Appendix A

Operational/Mechanical

Level: I (introductory) A (application) P (proficiency)

Operational Experience	Program	NETS	PK	K	1	2	3	4	5	6
Computer Basics	Visual Prompts Microsoft Office Learn.com	6								
Monitor	Identify, on/off, resolution		I	I	A	P				
Mouse	Right click, left click, drag/drop, scroll		I	A	A	P				
Ergonomics	Proper hand placement, seating, posture		I	I	I	A	A	P		
CPU	On/off, insert cd, identify ports		I	I	I	A	A	A	P	
Keyboarding	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	6								
Finger placement			I	I	A	A	P			
Basic keys			I	A	A	P	P			
Function Keys			I	I	A	A	P			
Number keys			I	A	P	P	P			
Punctuation				I	A	A	P			
Insert, Home ... Keys						I	A	P		
Practical Use of Accessories	Teacher created experiences	2,6								
Digital Cameras					I	A	A	P		
Projectors							I	A	A	A
Laptops							I	A	A	A
Media Players							I	A	A	A



















Appendix A

Curriculum Maps

Pre-K

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
November - June	(1,2)	How will I illustrate and communicate original ideas and stories using digital tools and media-rich resources?	Read Across America Starfall Little animals activity center Book Flix	I	Teacher Created, Observation	Student Work, Teacher Created
September- June	(5)	How will I demonstrate safe and cooperative use of technology?	Starfall Tech Works Teacher Created Materials	I	Teacher Created, Observation	Student Work, Teacher Created
September- June	(6)	How will I communicate about technology using developmentally appropriate and accurate terminology	TechWorks Teacher Created Materials	I	Teacher Created, Observation	Student Work, Teacher Created
January-June	(6)	How will I demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites	Age appropriate learning sites	I	Teacher Created, Observation	Student Work, Teacher Created

Appendix A



















Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
Sept-June	(6)	How will I learn the basics of a computer? <i>Including but not limited to:</i>  Monitor  Identify, on/off, resolution  Mouse  Right click, left click, drag/drop, scroll  Ergonomics  Proper hand placement, seating, posture  CPU  On/off, insert cd, identify ports	Visual Prompts Microsoft Office Learn.com	I	Teacher Created, Observation	Student Work, Teacher Created
Sept-June	(6)	How will I acquire basic Keyboarding skills? <i>including but not limited to:</i>  Finger placement  Basic keys  Function Keys  Number keys  Punctuation  Insert, Home ... Keys	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	N/A	Teacher Created, Observation	Student Work, Teacher Created
Sept-June		How will I practice and demonstrate the practical uses of Accessories? <i>including but not limited to:</i>  Digital Cameras  Projectors  Laptops  Media Players	Teacher created experiences	N/A	Teacher Created, Observation	Student Work, Teacher Created

Appendix A

Kindergarten

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
October-June	(1,2)	How will I illustrate and communicate original ideas and stories using digital tools and media-rich resources?	Read Across America Starfall Book Flix ABC Ya Dibbles	I	Teacher Created, Observation	Student Work, Teacher Created
March-June	(1,2,6)	In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area	Microsoft Office Read Across America	I	Teacher Created, Observation	Student Work, Teacher Created
Feb	(3)	How will I find and evaluate information related to a current or historical person or event using digital resources?	Google Safe Search Yahooligans	I	Teacher Created, Observation	Student Work, Teacher Created
March-June	(1,3,4)	How will I use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals?	Kidsperation Harcourt School.com Microsoft Office	I	Teacher Created, Observation	Student Work, Teacher Created
Sept.-June	(5)	How will I demonstrate safe and cooperative use of technology?	Tech Works Teacher Created	A	Teacher Created, Observation	Student Work, Teacher Created
Sept.-June	(6)	How will I communicate about technology using developmentally appropriate and accurate terminology	TechWorks	I	Teacher Created, Observation	Student Work, Teacher Created
Oct.-June	(6)	Demonstrate the ability to navigate in virtual environments such as electronic books,	Age appropriate learning sites	I	Teacher Created, Observation	Student Work, Teacher Created

Appendix A









Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
		simulation software, and Web sites			n	
Sept-June	(6)	How will I learn the basics of a computer? <i>Including but not limited to:</i>  Monitor  Identify, on/off, resolution  Mouse  Right click, left click, drag/drop, scroll  Ergonomics  Proper hand placement, seating, posture  CPU  On/off, insert cd, identify ports	Visual Prompts Microsoft Office Learn.com	I-A	Teacher Created, Observation	Student Work, Teacher Created
Sept-June	(6)	How will I acquire basic Keyboarding skills? including but not limited to:  Finger placement  Basic keys  Function Keys  Number keys  Punctuation  Insert, Home ... Keys	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	I-A	Teacher Created, Observation	Student Work, Teacher Created
Sept-June		How will I practice and demonstrate the practical uses of accessories? <i>including but not limited to:</i>  Digital Cameras  Projectors  Laptops  Media Players	Teacher created experiences	N/A	Teacher Created, Observation	Student Work, Teacher Created

Appendix A











First Grade

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
October - June	(1,2)	How will I illustrate and communicate original ideas and stories using digital tools and media-rich resources?	Learning.com Read Across America Starfall Little animals activity center Book Flix ABC Ya Dibbles	A	Teacher Created, Observation	Student Work, Teacher Created
Jan-June	(1,3,4)	How will I identify, research, and collect data on a subject or issue using digital resources and propose a developmentally appropriate solution?	Learning.com Wikipedia.com Google Custom Search	I	Teacher Created, Observation	Student Work, Teacher Created
May-June	(1,2,6)	How will I in a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area	Learning.com Google Docs Microsoft Office	I	Teacher Created, Observation	Student Work, Teacher Created
Feb.-June	(3)	How will I find and evaluate information related to a current or historical person or event using digital resources?	Learning.com Google Google Safe Search Yahooligans Harcourt School.com Senior Pals (email)	I	Teacher Created, Observation	Student Work, Teacher Created
March - June	(1,3,4)	How will I use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals?	Learning.com Kidsperation Harcourt School.com	I	Teacher Created, Observation	Student Work, Teacher Created
Sept. - June	(5)	How will I demonstrate safe	Learning.com	A	Teacher	Student Work,

Appendix A

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
		and cooperative use of technology?	E-Pals		Created, Observation	Teacher Created
May-June	(4,6)	How will I independently apply digital tools and resources to address a variety of tasks and problems	Google Custom Search Kid wings / Owl Pellets	I	Teacher Created, Observation	Student Work, Teacher Created
Sept. – June	(6)	How will I communicate about technology using developmentally appropriate and accurate terminology	TechWorks	A	Teacher Created, Observation	Student Work, Teacher Created
Nov.-June	(6)	How will I demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites	Active World Google Custom Search Age appropriate learning sites	A	Teacher Created, Observation	Student Work, Teacher Created
Sept-June	(6)	How will I learn the basics of a computer? <i>Including but not limited to:</i>  Monitor  Identify, on/off, resolution  Mouse  Right click, left click, drag/drop, scroll  Ergonomics  Proper hand placement, seating, posture  CPU  On/off, insert cd, identify ports	Visual Prompts Microsoft Office Learn.com	I-A	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created

Appendix A

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
Sept-June	(6)	How will I acquire basic Keyboarding skills? <i>including but not limited to:</i>  Finger placement  Basic keys  Function Keys  Number keys  Punctuation  Insert, Home ... Keys	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	A-E	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created
Sept-June		How will I practice and demonstrate the practical uses of Accessories? <i>including but not limited to:</i>  Digital Cameras  Projectors  Laptops  Media Players	Teacher created experiences	I	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created

Appendix A



















Grade Two

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
October-June	(1,2)	How will I illustrate and communicate original ideas and stories using digital tools and media-rich resources?	Learning.com Read Across America Starfall Little animals activity center Book Flix ABC Ya Dibbles	A	Teacher Created, Observation	Student Work, Teacher Created
Jan.-June	(1,3,4)	How will I identify, research, and collect data on a subject or issue using digital resources and propose a developmentally appropriate solution?	Learning.com Wikipedia.com Google Custom Search	A	Teacher Created, Observation	Student Work, Teacher Created
Dec.-June	(2,6)	How will I engage in learning activities with learners from multiple cultures through e-mail and other electronic means?	Learning.com E-Pals Video Conferencing	I	Teacher Created, Observation	Student Work, Teacher Created
April - June	(1,2,6)	In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area	Learning.com Google Docs Microsoft Office	A	Teacher Created, Observation	Student Work, Teacher Created
Oct. - June	(3)	How will I find and evaluate information related to a current or historical person or event using digital resources?	Learning.com Google Google Safe Search Yahooligans Harcourt School.com Senior Pals (email)	E	Teacher Created, Observation	Student Work, Teacher Created

Appendix A

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
March- June	(1,3,4)	How will I use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals?	Learning.com Kidsperation Harcourt School.com	A	Teacher Created, Observation	Student Work, Teacher Created
Sept.- June	(5)	How will I demonstrate safe and cooperative use of technology?	Learning.com E-Pals	E	Teacher Created, Observation	Student Work, Teacher Created
Sept. – June	(4,6)	How will I independently apply digital tools and resources to address a variety of tasks and problems	Google Custom Search Kid wings / Owl Pellets	A	Pre Test	Post Test
Sept. - June	(6)	How will I communicate about technology using developmentally appropriate and accurate terminology	TechWorks	E	Teacher Created, Observation	Student Work, Teacher Created
Sept. - June	(6)	How will I demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites	Active World Google Custom Search Age appropriate learning sites	A	Teacher Created, Observation	Student Work, Teacher Created

Appendix A

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
Sept.- June	(6)	How will I learn the basics of a computer? Including but not limited to:  Monitor  Identify, on/off, resolution  Mouse  Right click, left click, drag/drop, scroll  Ergonomics  Proper hand placement, seating, posture  CPU  On/off, insert cd, identify ports	Visual Prompts Microsoft Office Learn.com	A-E	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created
Sept.- June	(6)	How will I acquire basic Keyboarding skills? including but not limited to:  Finger placement  Basic keys  Function Keys  Number keys  Punctuation  Insert, Home ... Keys	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	A-E	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created
Sept.- June		How will I practice and demonstrate the practical uses of Accessories? including but not limited to:  Digital Cameras  Projectors  Laptops  Media Players	Teacher created experiences	A	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created

Appendix A



















Grade Three

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
Sept.-June	(1,2)	How will I illustrate and communicate original ideas and stories using digital tools and media-rich resources?	Learning.com Read Across America Starfall Little animals activity center Book Flix ABC Ya Dibbles	A	Teacher Created, Observation	Student Work, Teacher Created
Nov-June	(1,3,4)	How will I identify, research, and collect data on a subject or issue using digital resources and propose a developmentally appropriate solution?	Learning.com Wikipedia.com Google Custom Search	A	Teacher Created, Observation	Student Work, Teacher Created
Oct.-June	(2,6)	How will I engage in learning activities with learners from multiple cultures through e-mail and other electronic means?	Learning.com E-Pals Video Conferencing	I	Teacher Created, Observation	Student Work, Teacher Created
March-June	(1,2,6)	How will I in a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area	Learning.com Google Docs Microsoft Office	A	Teacher Created, Observation	Student Work, Teacher Created
Oct.-June	(3)	How will I find and evaluate information related to a current or historical person or event using digital resources?	Learning.com Google Google Safe Search Yahooligans Harcourt School.com Senior Pals (email)	E	Teacher Created, Observation	Student Work, Teacher Created

Appendix A











Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
Dec.-June	(1,3,4)	How will I use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals?	Learning.com Kidsperation Harcourt School.com	A	Teacher Created, Observation	Student Work, Teacher Created
Sept. – June	(5)	How will I demonstrate safe and cooperative use of technology?	Learning.com E-Pals	E	Teacher Created, Observation	Student Work, Teacher Created
Oct.-June	(4,6)	How will I independently apply digital tools and resources to address a variety of tasks and problems	Google Custom Search Kid wings / Owl Pellets	A	Pre Test	Post Test
Sept. – June	(6)	How will I communicate about technology using developmentally appropriate and accurate terminology	TechWorks	E	Teacher Created, Observation	Student Work, Teacher Created
Sept. - June	(6)	How will I demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites	Active World Google Custom Search Age appropriate learning sites	A	Teacher Created, Observation	Student Work, Teacher Created

Appendix A

Time Frame	NET Standards	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
Sept.-June	(6)	How will I learn the basics of a computer? Including but not limited to:  Monitor  Identify, on/off, resolution  Mouse  Right click, left click, drag/drop, scroll  Ergonomics  Proper hand placement, seating, posture  CPU  On/off, insert cd, identify ports	Visual Prompts Microsoft Office Learn.com	A-E	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created
Sept.-June	(6)	How will I acquire basic Keyboarding skills? including but not limited to:  Finger placement  Basic keys  Function Keys  Number keys  Punctuation  Insert, Home ... Keys	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	A-E	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created
Sept.-June		How will I practice and demonstrate the practical uses of Accessories? including but not limited to:  Digital Cameras  Projectors  Laptops  Media Players	Teacher created experiences	A	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created

Appendix A

Grade Four











Timeframe	NET Standard	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
Sept-June	(6)	How will I acquire basic Keyboarding skills? including but not limited to:  Finger placement  Basic keys  Function Keys  Number keys  Punctuation  Insert, Home ... Keys	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	A-E	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created
	(6)	How will I practice and demonstrate the practical uses of Accessories? including but not limited to:  Digital Cameras  Projectors  Laptops  Media Players	Teacher created experiences	A	Learning.com Teacher Created, Observation	Learning.com Student Work, Teacher Created
	(1,2,3,4)	How will I produce a media-rich digital story about a significant local event based on first-person interviews	Current Project History Channel Read Across America Microsoft Office Teacher Created Lessons	A	Learning.com Pretest	Learning.com Post test Teacher Observation Rubric/checklist
	(1,2,6)	How will I use digital-imaging technology to modify or create works	Learning.com Digital Cameras Scanners	A	Learning.com Pretest	Learning.com Post test Teacher

Appendix A

Timeframe	NET Standard	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
Sept-June		of art for use in a digital presentation	Microsoft Office			observation Rubric/checklist
	(3,4,6)	How will I select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses	Learning.com Microsoft Office	I	Learning.com Pretest	Learning.com Post test Teacher observation Rubric/checklist
	(5)	How will I practice injury prevention by applying a variety of ergonomic strategies when using technology	Typing Time Teacher Directed Lessons	A	Learning.com Pretest	Learning.com Post test Teacher observation Rubric/checklist

Appendix A

Grade Five

Timeframe	NET Standard	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
8 Week Blocks	(6)	How will I acquire basic Keyboarding skills? including but not limited to:  Finger placement  Basic keys  Function Keys  Number keys  Punctuation  Insert, Home ... Keys	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	A-E	Learning.com Teacher Created, Observation	Learning.com Post test Student Work, Teacher Created
	(6)	How will I practice and demonstrate the practical uses of Accessories? including but not limited to:  Digital Cameras  Projectors  Laptops  Media Players	Teacher created experiences	A	Learning.com Teacher Created, Observation	Learning.com Post test Student Work, Teacher Created
	(1,2,3,4)	How will I produce a media-rich digital story about a significant local event based on first-person interviews	Current Project History Channel Read Across America Microsoft Office Teacher Created	A	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists

Appendix A











Timeframe	NET Standard	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
8 Week Blocks			Lessons			
	(1,2,6)	How will I use digital-imaging technology to modify or create works of art for use in a digital presentation	Learning.com Digital Cameras Scanners Microsoft Office	A	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(3,4)	How will I recognize bias in digital resources while researching an environmental issue with guidance from the teacher	Learning.com Library Curriculum	I	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(3,4,6)	How will I select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses	Learning.com Microsoft Office	A	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(3,4)	How will I identify and investigate a global issue and generate possible solutions using digital tools and resources	E-Pals Microsoft Office	I	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(4,6)	How will I conduct science experiments using digital instruments and measurement devices	Kid wings / Owl Pellets West Point Bridge Builder	I	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists

Appendix A

Timeframe	NET Standard	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
	(4,6)	How will I conceptualize, guide, and manage individual or group learning projects using digital planning tools with teacher support	Learning.com Kidsperation Microsoft Office	I	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(5)	How will I practice injury prevention by applying a variety of ergonomic strategies when using technology	Typing Time Teacher Directed Lessons	E	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists

Appendix A

Grade Six

Timeframe	NET Standard	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
8 Week Blocks	(6)	How will I acquire basic Keyboarding skills? including but not limited to:  Finger placement  Basic keys  Function Keys  Number keys  Punctuation  Insert, Home ... Keys	Learn.com Microsoft Office Web links E-Pals Wikis Blogs	E	Learning.com Teacher Created, Observation	Learning.com Post test Student Work, Teacher Created
	(6)	How will I practice and demonstrate the practical uses of Accessories? including but not limited to:  Digital Cameras  Projectors  Laptops  Media Players	Teacher created experiences	A	Learning.com Teacher Created, Observation	Learning.com Post test Student Work, Teacher Created
	(1,2,3,4)	How will I produce a media-rich digital story about a significant local event based on first-person interviews	Current Event History Channel Read Across America Microsoft Office Teacher Created Lessons	E	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(1,2,6)	How will I use digital-imaging technology to modify or create works of art for use in a digital	Learning.com Digital Cameras Scanners Microsoft Office	E	Learning.com Pre test	Learning.com Post test Teacher Observation

Appendix A

Timeframe	NET Standard	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
8 Week Blocks		presentation				Rubrics/Checklists
	(3,4)	How will I recognize bias in digital resources while researching an environmental issue with guidance from the teacher	Learning.com Library Curriculum	A	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(3,4,6)	How will I select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses	Learning.com Microsoft Office	E	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(3,4)	How will I identify and investigate a global issue and generate possible solutions using digital tools and resources	E-Pals Microsoft Office	A	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(4,6)	How will I conduct science experiments using digital instruments and measurement devices	Kid wings / Owl Pellets West Point Bridge Builder	A	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(4,6)	How will I conceptualize, guide, and manage individual or group learning projects using digital planning tools with teacher support	Learning.com Kidsperation Microsoft Office	A	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(5)	How will I practice injury prevention by applying a	Typing Time Teacher Directed	E	Learning.com Pre test	Learning.com Post test

Appendix A

Timeframe	NET Standard	Essential Questions	Resource Material	ID. I/ A/ E	Pre Test	Post Test
		variety of ergonomic strategies when using technology	Lessons			Teacher Observation Rubrics/Checklists
	(5,6)	How will I debate the effect of existing and emerging technologies on individuals, society, and the global community	Learning.com Teacher Directed Lessons	I	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists
	(4,6)	How will I apply previous knowledge of digital technology operations to analyze and solve current hardware and software problems	Teacher Directed Lessons	I	Learning.com Pre test	Learning.com Post test Teacher Observation Rubrics/Checklists

References

ISTE

© 2007 International Society for Technology in Education. ISTE® is a registered trademark of the International Society for Technology in Education. <http://www.iste.org/AM/Template.cfm?Section=NETS>

Learning.com

© 2007 Learning.com | 1620 SW Taylor Street Suite 100 Portland Oregon 97205
<http://www.learning.com/about/index.htm>

Appendix B

Sullivan West Central School District Student Use of Technology Self-Evaluation

Students: Please check the level that best describes what you can do at the present time.

School Building _____

	Level One	Level Two	Level Three	Level Four
Basic Computer Use	I do not use a computer	I log-on, log-off, open, use and close a program on my own	I open and use more than one program at the same time.	I learn new programs on my own
File Management	I do not save any documents I create using the computer	I select, open and save documents on different drives	I create my own folders to keep files organized and maintain my account within allotted district limits	I move files between folders and drives.
Word Processing	I do not use a word processing program	I use a word processor for basic writing tasks.	I use the tools of the word processor, such as spell check and grammar check to edit my work.	I use the word processor to improve my previous drafts and publish a final document.
Spreadsheet	I do not use a spreadsheet.	I enter data in a spreadsheet and create charts.	I choose a chart which best reflects my data and apply title and labels.	I use formulas to help analyze data in a spreadsheet.
Database	I do not use a database.	I locate information from a pre-made database such as Library Search and electronic magazine sources.	I create my own database and add or delete information	I generate reports from a database in order to answer questions
Graphics	I do not use graphics with my word processing or presentations.	I create pictures with painting and drawing programs and use clip art.	I edit clip art, scan and import graphics from a variety of sources and modify them using a graphic editor	I invent, select and use graphics in order to make a point or illustrate what I have learned.

Appendix B

	Level One	Level Two	Level Three	Level Four
Research/Information-Searching	I do not use electronic sources to find information	I find information from electronic sources (World Book, Internet, CDs).	I select, gather, and save information from multiple electronic sources to answer a question.	I analyze and evaluate the information I've gathered
Desktop Publishing	I do not use a publishing program.	I use templates or wizards to create a published document.	I create original publications from a blank page combining design elements such as columns, clip art, tables, word art, and captions.	I design publications that effectively communicate information to others.
Peripherals (Digital Cameras, Scanners, CD-Burners)	I do not use any peripherals.	I use some peripherals for preparing class work, displays and other activities.	I incorporate graphics and video in presentations, displays, and publications in cooperative projects	I initiate projects incorporating the use of peripherals.
Video Production	I do not use a video camera.	I create original videos for home or school projects.	I create original videos using editing equipment.	I use computer programs to edit video presentations and I teach my students to create and edit videos.
Presentation Technology	I do not use computer presentation programs.	I use templates or wizards to create multimedia presentations.	I combine text with pictures imported from different sources, to create original multimedia presentations	I design multimedia presentations employing audio, video and still graphics to share ideas.
Internet	I do not use the Internet.	I visit Internet sites selected by my teacher and use navigation buttons to move between pages.	I use search tools efficiently to locate information	I create web pages for classroom projects.
Responsible Use/Ethics	I do not understand what responsible use means.	I take care of the equipment and leave it ready for the next user	I understand and follow District rules concerning harassment, language, passwords, copyright, privacy, appropriate use of resources, etc	I model responsible use and teach others

Adapted by the Technology Committee of Sullivan West Central School from the Mankato Scale, as used by Bellingham Public Schools.

Appendix B

Sullivan West Professional Development Team -Technology Use Survey/Self Assessment

School Building _____

Please Circle One:

Elementary Teacher PreK-3 / Grade 4-6
Please indicate specialty

Junior High School Teacher
Please indicate specialty

High School Teacher
Please indicate specialty

Please judge your level of achievement in each of the following competencies. Please mark the box which best reflects your current level of skill attainment. This tool is designed to help understand your current level of skills with computer technologies and to plan for professional development.

	Level One	Level Two	Level Three	Level Four
Basic Computer Use	I do not use a computer	I use the computer to run a few specific, pre-loaded programs	I run two programs simultaneously, and have several windows open at the same time	I can trouble-shoot basic problems with my computer or printer when they occur. I learn new programs on my own. I teach basic operations to my students.
File Management	I do not save any documents I create using the computer	I select, open and save documents on different drives	I create my own folders to keep files organized on local hard drive as well as network folders and understand the importance of a back-up system.	I move files between folders and drives, and I maintain my network storage size within acceptable limits. I teach students how to save and organize their files.
Word Processing	I do not use a word processing program	I occasionally use a word processing program for simple documents. I generally find it easier to hand write most written work I do	I use a word processing program for nearly all my written professional work: memos, tests, worksheets, and home communication. I edit, spell-check, and change the format of a document.	I teach students to use word processing programs for their written communication.

Appendix B

	Level One	Level Two	Level Three	Level Four
Spreadsheet	I do not use a spreadsheet.	I understand the use of a spreadsheet and can navigate within one. I create simple spreadsheets and charts.	I use spreadsheets for a variety of record-keeping tasks. I use labels, formulas, cell references and formatting tools in my spreadsheets. I choose charts that best represent my data.	I teach students to use spreadsheets to improve their own data keeping and analysis skills. This can be a basic or a more complex level.
Database	I do not use a database.	I understand the use of a database and locate information from a pre-made database such as Library Search.	I create my own databases. I define the fields and choose a layout to organize information I have gathered. I use my database to answer questions about my information.	I teach students to create and use databases to organize and analyze data.
Graphics	I do not use graphics with my word processing or presentations.	I open, create, and place simple pictures into documents using drawing programs or clipart.	I edit and create graphics, placing them in documents in order to help clarify or amplify my message.	I promote student interpretation and display of visual data using a variety of tools and programs.
E-mail	I have an e-mail account but rarely use it.	I send messages using e-mail – mostly to district colleagues, friends, and family. I check my e-mail account on a regular basis and maintain my mail folders in an organized manner.	I incorporate e-mail use into classroom activities. I use e-mail to access information from outside sources.	I use e-mail to request and send information for research.

Appendix B

	Level One	Level Two	Level Three	Level Four
Research/Information-Searching	I am unlikely to seek information when it is in electronic formats.	I conduct simple searches with the electronic encyclopedia and library software for major topics.	I have learned how to use a variety of search strategies on several information programs, including the use of Boolean (and, or, not) searches to help target the search.	I have incorporated logical search strategies into my work with students, showing them the power of such searches with various electronic sources to locate information that relates to their questions.
Desktop Publishing	I do not use a publishing program.	I use templates or wizards to create a published document.	I create original publications from a blank page combining design elements such as columns, clip art, tables, word art, and captions.	I design publications that effectively communicate information to others e.g. newsletters, flyers, brochures etc.
Peripherals (Digital Cameras, Scanners, CD-Burners)	I do not use any peripherals.	I use some peripherals for preparing lessons, displays and other activities.	I use most peripherals at some time during the year to enhance student learning and teacher presentation.	I teach using peripherals and am comfortable with showing students/colleagues how to use them.
Video Production	I do not use a video camera.	I create original videos for home or school projects.	I create original videos using editing equipment.	I use computer programs to edit video presentations and I teach my students to create and edit videos.
Presentation Technology	I do not use computer presentation programs.	I present my information to classes or groups in a single application program such as a word processor, a spreadsheet, or a publishing program.	I teach my class using presentation programs such as PowerPoint or HyperStudio, incorporating various multimedia elements such as sound, video clips, and graphics.	I teach students how to use presentation software. I facilitate the use of a variety of applications to persuasively present research concerning a problem or area of focus in learning.

Appendix B

	Level One	Level Two	Level Three	Level Four
Internet	I do not use the Internet.	I access websites to find information. I follow links from these sites to various Internet resources.	I use lists of Internet resources and make profitable use of Web search engines to explore educational resources.	I know how to use web-publishing software. I contribute to my school or district websites. I teach students how to effectively use the resources available on the Internet.
Responsible Use/Ethics	I am not aware of any ethical issues surrounding computer use.	I know that some copyright restrictions apply to computer software.	I understand district rules concerning student and adult use of e-mail and internet. I know the programs for which the district or my building holds a site license	I model ethical use of all software and let my students know my personal stand on this issue.
Technology Integration	I do not blend the use of computer-based technologies into my classroom learning activities.	I understand the district technology plan supports integration of technology into classroom activities, but I am still learning about what strategies will work and how to do it. I accept student work produced electronically, but do not require it	From time to time, I encourage my students to employ computer-based technologies to support the communicating, data analysis and problem solving outlined in the district technology plan.	I frequently model and teach my students to employ computer-based technologies for communication, data analysis, and problem solving as outlined in the district technology plan.

Adapted by the Technology Committee of Sullivan West Central School from the Mankato Scale, as used by Bellingham Public Schools.

Appendix B

Please indicate below the top five areas you would like to see workshops offered in.

1. _____
2. _____
3. _____
4. _____
5. _____

Additional comments are welcome:

Appendix C

On-Line Databases Available at Sullivan West CSD

1. Country Watch:

- CountryWatch is a world leader in providing country specific geopolitical intelligence on each of the 192 countries of the world. Select a country from the drop-down menu above or from the regional menu on the left to sample our information.

2. EBSCO:

- **MasterFile Select.** Designed specifically for public libraries, this multidisciplinary database provides full text for nearly 750 general reference publications with coverage dating as far back as 1984. Covering virtually every subject area of general interest, MasterFILE Select also includes 28 full text reference books and an Image Collection of 107,135 photos, maps and flags. This database is updated daily via EBSCO host.
- **TOPICSearch:** This current events database allows researchers to explore social, political & economic issues, scientific discoveries and other popular topics discussed in today's classrooms. *TOPICsearch* contains full text for over 78,000 articles from more than 3,000 diverse sources, including nearly 1,450 full text periodicals.
- **Primary Search:** Primary Search provides full text for more than 60 popular, magazines for elementary school research. All full text articles included in the database are assigned a reading level indicator (Lexiles), and full text information dates as far back as 1990. This database is updated daily on EBSCO host
- **EBSCO Animals:** Provides in-depth information on a variety of topics relating to animals. The database consists of indexing, abstracts, and full text records describing the nature and habitat of familiar animals.
- **Funk and Wagnalls New World Encyclopedia:** This database provides over 25,000 encyclopedic entries covering a variety of subject areas.
- **Searchasaurus:** Search tool for Elementary Students.

3. Gale Collection:

- **Custom Newspapers:** Search a collection of 150 newspapers, both national and international.
- **New York State Newspapers:** Search this database of ten major newspapers published in the state of New York, including the New York Times and the New York Post.
- **Health and Wellness Resource Center and Alternative Health Module**
Use this Resource Center to find magazines, journals, newspapers, definitions, directories, and information on: Fitness, Pregnancy, Medicine, Nutrition, Diseases, Public Health, Occupational Health and Safety, Alcohol and Drug abuse, Prescription Drugs, Herbal remedies, and alternative or complementary treatments, etc. Included are links to diet, cancer, and health assessment sites as well as government databases. Material contained in this Resource Center is intended for informational purposes only.

Appendix C

- **Business and Company Resource Center**
Business and Company Resource Center is a fully integrated resource bringing together company profiles, brand information, rankings, investment reports, company histories, chronologies and periodicals. Search this database to find detailed company and industry news and information.
- **Junior Edition - K12**
Formerly SuperTOM Junior, this periodical database is designed for students in junior high and middle school, with magazines, newspapers and reference books (most are full-text) for information on current events, the arts, science, popular culture, health, people, government, history, sports and more.
- **Health Reference Center Academic** 1980 - Feb 2010
Use this database to find articles on: Fitness, Pregnancy, Medicine, Nutrition, Diseases, Public Health, Occupational Health and Safety, Alcohol and Drug abuse, HMOs, Prescription Drugs, etc. The material contained in this database is intended for informational purposes only
- **The Twayne Authors Series - Twayne World, English, and US Authors**
Twayne World, US, and English Authors each contains the full text of 200 frequently used Twayne Literary Masters books on individual World, US, or English authors, for a total of 600 individual full-text titles.
- **Informe** 1994 - Febr. 2010
Una colección de revistas hispánicas con textos completos. Abarca negocios, salud, tecnología, cultura, temas de actualidad y otras materias.
- **National Newspaper Index** 1977 - Feb 2010
National Newspaper Index provides quick access to the indexing of America's top five newspapers in one seamless search: The New York Times, The Wall Street Journal, The Christian Science Monitor, Los Angeles Times and The Washington Post.
- **Contemporary Authors**
Provides complete biographical and bibliographical information and references on more than 120,000 U.S. and international authors.
- **Contemporary Literary Criticism Select**
Contemporary Literary Criticism--Select is an extensive collection of critical essays on contemporary authors. Each CLC--Select entry contains a biographical/critical introduction, listing of principal works and sources for further study.
- **Opposing Viewpoints Resource Center** 1980 - Feb 2010
Opposing Viewpoints Resource Center draws on the acclaimed social issues series published by Greenhaven Press, as well as core reference content from other Gale and Macmillan Reference USA sources to provide a complete one-stop source for information on social issues. Access viewpoint articles, topic overviews, statistics, primary documents, links to websites, and full-text magazine and newspaper articles

4. LitFinder.com:

- **Poems:** The ultimate poetry reference. 125,000 full-text poems including more than 25,000 copyrighted poems, 800,000 poem citations.
- **Stories:** Thousands of full-text stories, explanations, biographies, Just Published Stories and pictures

Appendix C

- **Essays:** Over 125,000 full text poems, explanations, study guides, a glossary, pictures and more. The most comprehensive, curriculum-integrated collection available. Perfect for students, teachers and librarians
- **Plays:** The most complete single source of full-text plays, covering the full range of dramatic expression.
- **Speeches:** Includes the best-known speeches of the past 2,500 year

5. Grolier On-Line Encyclopedia

6. Encyclopedia Britannica

7. New York Times On-line Digest (www.nytimesdigest.com/subscribers)

Appendix D

Sullivan West Central School Technology Integration Grant Application

Sullivan West is initiating technology integration grants to support innovative of technology to enhance student learning through classroom or community-based projects. Technology should include, but not be limited to, computers, multi-media, and the Internet.

The grants support classroom and community based learning projects but the funds may not substitute for district responsibilities, such as the provision or replacement of regular classroom or library materials and supplies.

Grant awards will not exceed \$1,000.

Grant evaluation criteria: A committee consisting of Sullivan West technology committee members and administrator(s) will evaluate applications according to the following criteria:

Quality of Proposal

- Clarity of purpose, including explanation of local need
- Educational significance in terms of N.Y.S. Learning Standards or the application of current research
- Clear and viable implementation of strategies and procedures
- Clear and measurable (qualitative or quantitative) student outcomes
- Evidence of long-term impact or integration into ongoing instruction

Final Product or Demonstration Description

Size of Target Audience

Indication of other funding or In-Kind Services (application must document in dollar amount in-kind contribution from other sources).

Other Stipulations: Stipends for professional time in the development of projects will only be awarded for work done outside of the school day. If you choose to include professional time, cost should not exceed ten percent of the total grant and will be payable to the successful applicant. A log will be required documenting time and activities done outside of the school day as a part of the final report.

Requests for equipment will be considered but will be given low priority. Equipment purchases may not exceed 50% of the grant and, at the conclusion of the project, all ownership rights to such equipment shall be retained by the school district.

The project must be completed on or before May 31 of the current school year.

Appendix D

Final Report

Upon completion of the project, you must submit a project summary that should include the following:

- Report (2-5 pages) which must include the following information:
 - The project's impact on student learning and performance
 - Indication of Learning Standards addressed through project activities, and
 - Evidence that the project will lead to or foster change in classroom instruction
- Examples of student work, or other products resulting from the project.
- A log of time and activities charged as professional time, if applicable.
- Receipts (proofs of purchase) for supplies, materials, and equipment.

IMPORTANT: The final report must be received on or before June 15 of the current school year. Project summaries and products will become part of Sullivan West's professional library available online.

Submission Deadline: All applications must be received by the technology committee on or before December 1 of the current school year.

Award Notification: Recipients of grant awards will be notified by December 20 of the current school year.

Please note: It is the responsibility of the applicant to see that the project conforms to district policies relating to student participation and the use of school facilities.

Appendix E
Sullivan West Elementary Technology Assessment Inventory

	Computer Labs	Classrooms	Library or Media Center	Admin Offices	Other Locations	Planned Future Acquisitions		
						Year 1	Year 2	Year 3
Computers (listed by type)								
Teacher Stations	1	35	1	14	6		In years 2008-2010 the district has invested heavily in upgrading client level technology, all teacher stations have been replaced with new units, as have all thin clients in labs	
Laptops	2	Individual 6		4				
Student Stations	12	25						
Thin Clients	80	75	16		4			
Power Mac and iMac		10						

Peripheral Devices								
Printers Local	1	25		5	2			
Printers Network	3	40	2	4	4			
Lego Robotics	5							
Scanners	5							

Appendix E
Sullivan West Elementary Technology Assessment Inventory

Smart Response (shared)		2						
Assistive/ Adaptive Devices		5						
Digital Cameras		5						
TV Monitors	1	50						
VCRs /DVD Players	1	50						
IP Phones	1	35	1	16	8			
LCD Projector	3	14	1					
Smart Board	12							

Network Equipment							
Switches	MDF 4 + 2 level 3	IDF 1 3	IDF 2 4	IDF3 3	IDF4 2		All critical switches and servers were upgraded in 2008-2009.
Routers	MDF 1						
Servers	MDF 8	In 2009-2010 we have virtualized critical servers with redundant systems on each campus. This has reduced our carbon footprint in each location and made our system more robust.					
WAN connect Milan Fast E-Net	MDF 1						Upgrade connection from 100 mbs to 200 mbs

Appendix E
Sullivan West Elementary Technology Assessment Inventory

Telecommunication Links		
POTS & ISDN	12	Emergency lines for Elevator/Fire/Safety/Backup Fire/Dedicated FAX/Emergency lines for VOIP Router. In 2009 2 PRI-ISDN lines were installed (1 for each campus) to make district IP Phone system digital. Failover on one campus routes calls to ISDN on other campus. All IP servers were upgraded in 2009
WAN	Interconnects all campuses and to Sullivan County BOCES	
Broad Band Internet	Provided in all classrooms, labs, and offices	

	Computer Labs	Classrooms	Library or Media Center	Admin Offices	Other Locations	Planned Future Acquisitions		
						Year 1	Year 2	Year 3
Software (listed by type)								
Server Software was upgraded to Windows 2003 Ent server in 2008 and 2009. Citrix MetaFrameXP provides thin client access. This requires licensing of Windows TS software in addition to Windows CAL software. All campuses have appropriate licensing for all core network software being used in proportion to the number of users.						We anticipate further investment in server based software in the coming years. Currently all our terminal servers have been upgraded to new units.		
Our terminal Servers are standardized on MS Office. All thin client sessions have access to MS Office Suite. Individual PCs have MS Office also.								
Typing Time, Inspiration, Kidspiration								
Learning Portals: Learning.com, Voice Threads, Internet Safety Curriculum, BrainPop, CastleLearning								
PC Based Software: A variety of older software that runs directly on PCs is in use in classes with student PCs. Some of the software is listed here: Reader Rabbit series, Where is Carmen SanDiego series, Kaplan’s Math, Clue Finder’s series, Mighty Math series, Math Blaster series, Edmark series, Invention Studio, Hyperstudio...								
On-Line Database Subscriptions		See Appendix C						

Appendix E
SW Elementary Technology Assessment Inventory

MDF (Room 209)

Designation	Server	SN	OUBOCES	Role
Terminal Servers	DELL PowerEdge 2950 III	H0KRGB1	G 67873	Terminal Server 1
	DELL PowerEdge 2950 III	D0KRGB1	G 67874	Terminal Server 2
	DELL PowerEdge 2950 III	J0KRGB1	G 67875	Terminal Server 3
	DELL PowerEdge 2950 III	B0KRGB1	G 67876	Terminal Server 4
	DELL PowerEdge 2950 III	G0KRGB1	G 67877	Terminal Server 5
	DELL PowerEdge 2950 III	11KRGB1	G 67878	Terminal Server 6
	CISCO MCS 7800			CCM Subscriber
SANS Server	LH SATA NSM 2060 3TB	FNBYCG1	G 67473	JY SANS System
Setup	LH SATA NSM 2060 3TB	3PBKCG1	G 67474	JY SANS System
	Cisco WS-3570-G-24T	FDO1213Y2LN	G 67870	JY SANS System
VMWare Setup	DELL PowerEdge 2950	GZQCTJ1	G 70613	JY-ESX-1.SWCSD.LOCAL
	DELL PowerEdge 2950	DZQCTJ1	G 70614	JY-ESX-2.SWCSD.LOCAL
Virtualized Servers	JY-ESX-1.SWCSD.LOCAL			
on	JY-ESX-2.SWCSD.LOCAL			

Cisco System	Switch	S/N	BOCES	Function
Switches & Routers	Cisco WS-3570-G	FD01212Z3DC	G 67871	L3 Switch
	Cisco WS-3570-G	FDO120YIND	G 67872	Redundant L3 Switch
	Cisco WS-2960G-48	FOC1220V2RW	G 67894	For Data Drops on this floor
	Cisco WS-2960G-48	FOC1220V28S	G 67895	For Data Drops on this floor
	Cisco WS-2960G-24	FOC1220Y1QW	G 67896	For Data Drops on this floor
	Cisco WS-3560G-PoE	FOC1221Y0RF	G 67897	For PoE Drops on this floor
	Cisco 2651 XM Gateway	JMX0731L4GX		VOIP Gateway

IDF Room 108

Cisco System	Switch	S/N		Function
	Cisco WS-3560G-PoE	FOC1221Y0WU	G 67889	For IP Phones on this floor
	Cisco WS-3560G-PoE	FOC1221Y0XC	G 67890	For IP Phones on this floor
	Cisco WS-2960G-24	FOC1220Y1Q4	G 67891	For Data Drops on this floor
	Cisco WS-2960G-48	FOC1220V2B9	G 67892	For Data Drops on this floor
	Cisco WS-2960G-48	FOC1220V2QP	G 67893	For Data Drops on this floor

Appendix E
SW Elementary Technology Assessment Inventory

IDF Room 127

Cisco System	Switch	S/N		Function
	Cisco WS-3560G-PoE	FOC1303W2FC	G 67887	For IP Phones on this floor
Switches	Cisco WS-3560G-PoE	FOC1303W2GK	G 67888	PoE for Sec-CAMs
	Cisco WS-2950G-48	F0C0742W030		For Data Drops on this floor
	Cisco WS-2950G-24	F0C0738W18M		For Data Drops on this floor
	Cisco WS-2950G-24	F0C0738W1ST		For Data Drops on this floor

IDF Room 164

Cisco System	Switch	S/N		Function
Switches	Cisco WS-3560G-PoE	FOC1221Y0X1	G 67887	For IP Phones on this floor
	Cisco WS-3560G-PoE	FOC1221Y0VQ	G 67888	For IP Phones on this floor
	Cisco WS-2950G-48	F0C0742X035		For Data Drops on this floor
	Cisco WS-2950G-48	F0C0738XIJQ		For Data Drops on this floor
	Cisco WS-2950G-48	F0C0738XIJQ		For Data Drops on this floor
	Cisco WS-2950G-24	F0C0738XIJQ		For Data Drops on this floor

IDF Room 262

Cisco System	Switch	S/N		Function
Switches	Cisco WS-3560G-PoE	FOC1221Y0X1	G 67887	For IP Phones on this floor
	Cisco WS-2950G-48	F0C0742X00X		For Data Drops on this floor
	Cisco WS-2950G-24	F0C0742X035		For Data Drops on this floor

IDF Room 157A

Cisco System	Switch	S/N		Function
Switches	Cisco WS-3560G-PoE	FOC1221Y0X1	G 67887	For IP Phones on this floor

IDF Room 54A

Cisco System	Switch	S/N		Function
Switches	Cisco WS-3550-24 PWR	CAT0735Z0ZG		For IP Phones on this floor
	Cisco WS-2950G-24	F0C0742W030?		For Data Drops on this floor
	Cisco WS-2950G-48	F0C0742W030		For Data Drops on this floor

Appendix E
Lake Huntington HS Technology Assessment Inventory

	Computer Labs	Classrooms	Library or Media Center	Admin Offices	Other Locations	Planned Future Acquisitions		
						Year 1	Year 2	Year 3
Computers (listed by type)								
Teacher Stations	4	55	2	20	8		In years 2008-2010 the district has invested heavily in upgrading client level technology, all teacher stations have been replaced with new units, as have all thin clients in labs	
Laptops	2	7		1				
Student Stations (PC)	45	5	2					
Thin Clients	44	130	25		4			

Peripheral Devices								
Printers Local		2	2	4	5			
Printers Network	6	40	2	4	2			
Lego Robotics	10							
Scanners	2	5	1		1			
Assistive/ Adaptive Devices					3			

Appendix E
Lake Huntington HS Technology Assessment Inventory

Digital Cameras		3						
TV Monitors	4	35	1		1			
VCRs/DVD/Players	4	37	1		1			
LCD Projector	2	3						
Smart Board	2	1						
IP Phones	6	35	1	14	9			

Network Equipment							
Switches	MDF	IDF 2	IDF 3	IDF 4	IDF 5	IDF 6	IDF 7
	6	3	4	3	4	2	1
Routers	2	In 2009-2010 we have virtualized critical servers with redundant systems on each campus. This has reduced our carbon footprint in each location and made our system more robust.					
PIX Firewalls	2						
Servers	10						
Backup Devices	2						
Telecommunication Links							
POTS	14	Emergency lines for Elevator/Fire/Safety/Backup Fire/Dedicated FAX/Emergency Calls for VOIP Router					
PRI-ISDN	2	One line on each campus, failover redundancy in case of single line failure					
WAN		Interconnects all campuses and to Sullivan County BOCES					

Appendix E
Lake Huntington HS Technology Assessment Inventory

Broad Band Internet	Provided in all classrooms, labs, and offices
---------------------	---

	Computer Labs	Classrooms	Library or Media Center	Admin Offices	Other Locations	Planned Future Acquisitions		
						Year 1	Year 2	Year 3
Software (listed by type)								
Server Software was upgraded to Windows 2003 Ent server in 2008 and 2009. Citrix MetaFrameXP provides thin client access. This requires licensing of Windows TS software in addition to Windows CAL software. All campuses have appropriate licensing for all core network software being used in proportion to the number of users.								
Our terminal Servers are standardized on MS Office. All thin client sessions have access to MS Office Suite. Individual PCs also have MS Office.							We anticipate further investment in server based software in the coming years. Currently all our terminal servers have been upgraded to new units.	
Other terminal Server based software is listed below.								
ClassLink Launchpad (Desktop management module for teachers)		Server based software is accessible on any desktop or thin client in any location (including remotely via the internet) on campus. Use is metered by server based administrative software.					All teacher stations have been replaced with new units.	
Adobe Photoshop								
Macromedia Studio 8								
Macromedia Director								
Jostens Yearbook software								
Prentice-Hall I-Text Social Studies on-line interactive text book								
Automated Accounting								
Internet Safety Portal								
MicroType 3.0								

Appendix E
Lake Huntington HS Technology Assessment Inventory

ClassXP (Daily attendance/grading module for teachers) – This will transition to the more comprehensive SMS eSchoolData in 2010-2011		
Adobe PageMaker		
Rhino3D		
CAD Lab Software	Autodesk Inventor	
CIM Lab Software	Autodesk Inventor Robocell CNC Motion Edge CAM	
On line databases	See Appendix C	

Appendix E
Lake Huntington Secondary School Technology Assessment Inventory

MDF

Designation	Server	SN	OUBOCES	Role
Terminal Servers	DELL PowerEdge 2950	4JYBX21	G 70605	Terminal Server 1
	DELL PowerEdge 2950	1NSBX21	G 70606	Terminal Server 2
	DELL PowerEdge 2950	97TBX21	G 70607	Terminal Server 3
	DELL PowerEdge 2950	CMSBX21	G 70608	Terminal Server 4
	DELL PowerEdge 2950	3JYBX21	G 70609	Terminal Server 5
	DELL PowerEdge 2950	FMSBX21	G 70610	Terminal Server 6
	DELL PowerEdge 2650	6KB7X21		Redundant Exchange Server
	DELL PowerEdge 2950	54PC6D1		Current BackUp Server
	DELL PowerEdge 2650	3NSBX21		Remote Server
	Cisco MCS 7800	MX2807004Y		Unity
	Cisco MCS 7800	MX281400PC		CCM Publisher
	DELL PowerVault 124T	2VN02C1	B 61499	Client of SWD-LH-BACKUP3
	Dell PowerVault MD1000	6PR37D1	B 61500	Client of SWD-LH-BACKUP3
	Cisco 515E PIX	88807120254		Primary Firewall
	Cisco 515E PIX	88807193156		BackUp Firewall
	WS-C6509-1300AC	TSC072400C0		Core Switch
	Cisco 2600	JMX0726L0CX		VOIP Gateway
SANS	LH SATA NSM 2060 3TB	4PBYCG1	G 67899	LH SAN Node 1
	LH SATA NSM 2060 3TB	JNBYCG1	G 67900	LH SAN Node 2
SANS Switch	Cisco WS-3570-G-24T	FDO1213Y2LX	G 67869	
VM Hosts	DELL PowerEdge 2950	FZQCTJ1	G 70613	LH-ESX-1.SWCSD.LOCAL
	DELL PowerEdge 2950	HZQCTJ1	G 70614	LH-ESX-2.SWCSD.LOCAL
	LH-ESX-1.SWCSD.LOCAL			
	LH-ESX-2.SWCSD.LOCAL			
	Switch	S/N		Function
Switches	Cisco WS-2950G-48	FHK0725W001		Data Drops in Cafeteria/Library
	Cisco WS-2950G-48	FHK0725X0Q7		Data Drops in Cafeteria/Library
	Cisco WS-2950G-24	FOC0832W13A		1-12 Data, 13-24 VLAN 9
	PHIHONG POE370U	HW017P82000392A 18		For Sec-CAMs in this sector

Appendix E
Lake Huntington Secondary School Technology Assessment Inventory

IDF 2 (Room D102)

Switch	S/N		Function
Cisco WS-3560G-PoE	FOC1250Z7R3		For IP Phones in this section
Cisco WS-2950G-48	FHK0725W0P9		For Data Drops in this section
Cisco WS-2950G-24	FHK0720X0C1		For Data Drops in this section

IDF 3 (Room D101)

Switch	S/N		Function
Cisco WS-2950G-48	FHK0725W0P5		For Data Drops in this section
Cisco WS-2950G-48	FHK0725W007		For Data Drops in this section
Cisco WS-3560G-PoE	FOC1221Y1XV		For IP Phones in this section
Cisco WS-3560G-PoE	FOC1221Y27C		For IP Phones in this section

IDF 4 (Room D202)

Switch	S/N		Function
Cisco WS-3560G-PoE	FOC1250Z7QG		For IP Phones in this section
Cisco WS-2950G-48	FHK0725X007		For Data Drops in this section

IDF 5 (Room D201)

Switch	S/N		Function
Cisco WS-3560G-PoE	FOC1303W2G9		For IP Phones in this section
Cisco WS-2950G-48	FHK0724Y1C4		For Data Drops in this section
Cisco WS-2950G-48	FHK0724Z1PZ		For Data Drops in this section

IDF 6 (Room D204)

Switch	S/N		Function
Cisco WS-3550-24 PWR	CAT0723Z0ZG		For IP Phones in this section
Cisco WS-2950G-48	FHK0728207Q		For Data Drops in this section
Cisco WS-2950G-24	FHK0651Z1NF		For Data Drops in this section
Cisco WS-2950G-24	FHK065121MA		For Data Drops in this section
PHIHONG POE370U	HW017P82000372A18		For SEC-CAMs

IDF 7 (Room 286)

Switch	S/N		Function
Cisco WS-3560G-PoE	FOC1303W2E9		For IP Phones in this section

Appendix F

Projected Expenditures for Years 2010-2013

Category	2010-2011	2011-2012	2012-2013	Source of Monies
Software (by major category)				
Server Based Applications	\$7,500.00	\$7,500.00	\$7,500	Regular Budget
Windows Upgrades	\$2,500.00	\$2,500.00	\$2,500.00	
MS Office	\$10,000.00	\$5,000.00	\$5,000.00	
Antivirus	\$3,500.00	\$3,500.00	\$3,500.00	
Other	\$2,500.00	\$2,500.00	\$2,500.00	
Totals	\$26,000.00	\$21,000.00	\$21,000.00	
Hardware (by major category)				Regular Budget And Grants
LAN related	\$5,000.00	\$5,000.00	\$5,000.00	
WAN related	\$5,000.00	\$1,000.00	\$1000.00	
Server Related	\$5,000.00	\$5,000.00	\$5,000.00	
Desktop/Laptop Units	\$2,000.00	\$2000.00	\$2000.00	
Thin Clients	\$5000.00	\$5000.00	\$5000.00	
PLTW Related	\$5000.00	\$2,000.00	\$2,000.00	
Peripherals	\$10,000.00	\$10,000.00	\$5,000.00	
Totals	\$37,000.00	\$30,000.00	\$25,000.00	
Payroll	\$230,000.00	\$200,000.00	\$200,000.00	Regular Budget
Maintenance	\$10,000.00	\$10,000.00	\$10,000.00	
Contractual Services	\$60,000.00	\$60,000.00	\$60,000.00	
Professional Development	\$25,000.00	\$25,000.00	\$25,000.00	Regular Budget/Grants
BOCES Services (list)				
Model Schools	\$13,500.00	\$13,500.00	\$13,500.00	Regular Budget
Library Services	\$21,000.00	\$21,000.00	\$21,000.00	

Appendix F

Learning Technologies	\$250,000.00	\$75,000.00	\$75,000.00	
Category	2007-2008	2008-2009	2009-2010	Source of Monies
				Regular Budget
Tech Support	\$25,000.00	\$25,000.00	\$25,000.00	
WAN Connectivity	\$60,000.00	\$60,000.00	\$60,000.00	
Internet Access	\$3,000.00	\$3,000.00	\$3,000.00	
Internet Filtering	\$5000.00	\$5000.00	\$5000.00	
Other BOCES Services	\$16,000.00	\$16,000.00	\$16,000.00	
Rooms with access	Applications, data, and the Internet is available in all locations on every campus			

Appendix G
SULLIVAN WEST CENTRAL SCHOOL DISTRICT

Student Acceptable Use Policy

The Sullivan West Central School District offers Internet access for student use. This document contains the Acceptable Use Policy for your use of the District Electronic Communications System (known as DECS) and information that you should be aware of.

A. PROGRAM DEVELOPMENT

In order to match electronic resources as closely as possible to the approved district curriculum, district personnel will review and evaluate resources in order to offer "home pages" and menus of materials that comply with district guidelines governing the selection of instructional materials. In this manner, staff will provide developmentally appropriate guidance to students as they make use of telecommunications and electronic information resources to conduct research and other studies related to the district curriculum. All students will be informed by staff of their rights and responsibilities as users of the DECS prior to gaining access to that network, either as an independent user or as a member of a class or group.

As much as possible, access to district information resources will be designed in ways that point students to those locations that have been reviewed and evaluated prior to use. While students may be able to move beyond those resources to others that have not been evaluated by staff, they shall be provided with guidelines and lists of resources particularly suited to the learning objectives. Students may pursue electronic research independent of staff supervision only if they have been granted parental permission and have submitted all required forms. Permission is not transferable and may not be shared.

B. EDUCATIONAL PURPOSE

1. The DECS has been established for a limited educational purpose. The term "educational purpose" includes classroom activities, career development, and limited high-quality self-discovery activities.
2. The DECS has not been established as a public access service or a public forum. The Sullivan West Central School District has the right to place reasonable restrictions on the material you access or post through the system. You are expected to follow the rules set forth in the Acceptable Use Policy and the Student Handbook.
3. Individual E-mail Accounts for Students will not be provided. Students will only be allowed supervised e-mail access through a teacher account.
4. You may not use the DECS for commercial purposes. This means you may not offer, provide, or purchase products or services through DECS.
5. You may not use the DECS for political lobbying.

C. STUDENT INTERNET ACCESS

1. All students will have supervised access to Internet World Wide Web information resources through their classroom, library, or school computer lab, unless the parents request (in writing) that this access be denied.
2. You and your parent must sign an Account Agreement to be granted **independent** Internet use on the DECS. This option is only available for students in grades 8 - 12. Your parent can withdraw their approval at any time.
3. If approved by your building principal, you may create a personal Web page on the DECS. All material placed on your Web page must be pre-approved in a manner specified by the school. Material placed on your Web page must relate to your school and career preparation activities.

D. STUDENT RESPONSIBILITIES:

1. Access to the DECS is a privilege, not a right. Access entails responsibility.
2. You are responsible for good behavior on school computer networks just as you are in a classroom or a school hallway. General school rules for behavior apply.
3. Independent access to network services is provided to students in grades 8 - 12 who agree to act in a considerate and responsible manner. Parent permission is required.
4. You will immediately notify a teacher or the system administrator if you have identified a possible security problem. You must not go looking for or share security problems, because this may be construed as an illegal attempt to gain access.
5. You are responsible for your individual account and should take all reasonable precautions to prevent others from being able to use your account. Under no conditions should you provide your password to another person. You have full responsibility for the use of your account and can be held responsible for any policy violations that are traced to your account.
6. If you mistakenly access inappropriate information, you should immediately tell your teacher or another District employee. This will protect you against a claim that you have intentionally violated the Student Acceptable Use Policy.
7. Parents should instruct their child(ren) if there is additional material that they think would be inappropriate for their child(ren) to access. The district fully expects that you will follow your parent's instructions in this matter.

E. UNACCEPTABLE USES

It is not the intention of this regulation to define all inappropriate usage. However, in addition to the general requirements of acceptable student behavior, activities which shall be prohibited when using the District Electronic Computer System (known as DECS) include, but are not limited to, the following:

- 1) Displaying offensive messages or pictures
- 2) Using obscene, profane, lewd, vulgar, rude, inflammatory, threatening, or disrespectful language
- 3) Harassing, insulting, or attacking others
- 4) Using the DECS for any type of communication including, but not limited to e-mail, instant messenger, network broadcasting, chat rooms, etc.
- 5) "Surfing" the Internet without an educational purpose
- 6) Damaging computers, computer systems, or computer networks
- 7) Attempting to override system security
- 8) Attempting to gain unauthorized access to the DECS or to any other computer system through the DECS, or go beyond authorized access
- 9) Engaging in practices that threaten the DECS (e.g., loading files that may introduce a virus)
- 10) Violating regulations prescribed by the network provider
- 11) Violating copyright laws

Appendix G

- 12) Using others' passwords
- 13) Trespassing in others' folders, work, or files
- 14) Intentionally wasting limited resources
- 15) Employing the network for commercial purposes
- 16) Downloading large files
- 17) Engaging in any illegal act

Users will not use the DECS to access material that is profane or obscene (pornography), that advocates illegal acts, or that advocates violence or discrimination towards other people (hate literature). A special exception may be made for hate literature if the purpose of such access is to conduct research and access is approved by both the teacher and the parent.

F. SANCTIONS

1. Violations may result in a loss of access, duration to be determined by the appropriate administrator.
2. Additional disciplinary action may be determined at the building level in line with existing practice regarding inappropriate language or behavior.
3. When applicable, law enforcement agencies may be involved.

G. PERSONAL RESPONSIBILITY

When you are using the DECS, it may feel like you can more easily break a rule and not get caught. This is not really true because whenever you do something on a network you leave little "electronic footprints," so the odds of getting caught are really about same as they are in the real world.

But the fact that you can do something or think you can do something without being caught does not make it right to do so. Even if you don't get caught, there is always one person who will know whether you have done wrong -- and that person is you. Your use of the Internet can be a mirror that will show you what kind of a person you are.

Appendix G
Student Account Agreement

Student Name _____ Grade _____

School _____ Date _____

I have read the Student Acceptable Use Policy. I agree to follow the rules contained in this Policy. I understand that if I violate the rules my account can be terminated and I may face other disciplinary measures.

Please write: I will not use the network for communicating with others. _____

Student Signature _____ Date _____

Password Requested: _____ (do not fill in if you already have one; 6 - 8 letters or digits)

Permission Form for Independent Internet Use

I have read the letter called Parent Information on the District Electronic Communication System (DECS) and the Student Acceptable Use Policy.

As the parent or legal guardian of the student signing above, I grant permission for my son or daughter to independently access networked computer services such as the Internet. I understand that individuals and families may be held liable for violations. I understand that some materials on the Internet may be objectionable, but I accept responsibility for guidance of Internet use - setting and conveying standards for my daughter or son to follow when selecting, sharing, or exploring information and media.

I will instruct my child regarding any restrictions against accessing material that are in addition to the restrictions set forth in the District Acceptable Use Policy. I will emphasize to my child the importance of following the rules for personal safety.

Parent/Guardian Signature _____ Date _____

Parent/Guardian Name _____

Home Address _____

Telephone Number _____

This space reserved for System Administrator

Assigned User Name: _____ Date: _____

Assigned Password: _____ Initials: _____

App G

Disciplinary Guidelines for the District Acceptable Use Policy

(Final decision to be made by administration and approved by BOE)

Occurrence	1st	2nd	3d	4th	5th
Infraction	Suggested Steps (below)				
Engaging in an illegal act	4-5	4-5	4-5	4-5	4-5
Violating copyright laws	Follow district policy				
Damaging computer, computer systems, or networks	3-5	3-5	3-5	3-5	3-5
	Monetary recompense				
Attempting to override system security	3-5	3-5	3-5	3-5	3-5
Attempting to gain unauthorized access to DECS or any other computer system or go beyond authorized access	3-5	3-5	3-5	3-5	3-5
Engage in practices that threaten the district DEC (e.g. load files that may introduce a virus)	3-5	3-5	3-5	3-5	3-5
Violating regulations prescribed by the AUP	1-5	2-5	3-5	4-5	4-5
Sending or displaying offensive messages or pictures	3-5	3-5	3-5	3-5	3-5
Using obscene, profane, lewd, rude, inflammatory, threatening, or disrespectful language	3-5	3-5	3-5	4-5	4-5
Harassing, insulting, or attacking others	3-5	3-5	3-5	4-5	4-5
Using the computer system for non-educational purposes (e.g. playing purely recreational games)	1-2	2-3	3-4	4-5	4-5
Bringing games or other files to school from home and using them on the DECS for non-academic purposes.	1-2	2-3	3-4	4-5	4-5
Giving your ID and password for others to use	1-2	2-3	3-4	4-5	4-5
Trespassing in others' folders, work, or files	2-3	2-3	3-4	4-5	4-5
Using others' passwords	1-2	2-3	3-4	4-5	4-5
Communicating electronically with others	1-2	2-3	3-4	4-5	4-5

Disciplinary Options	
Step 1	Administrator conference with student, warning issued, parents notified
Step 2	Administrator conference with student, 10 days restricted network access*, detention, parents notified
Step 3	Administrator conference with student, 20 days restricted network access*, ISS, parents notified
Step 4	Administrator conference with student, network privileges revoked for 20 days**, out of school suspension, parents notified
Step 5	Superintendent's hearing, network privileges** revoked permanently
*	Permits access to data and applications on a restricted basis for classes that require them
**	When access is revoked students are responsible for work completion by other means.