# Computer Technology Plan 2007-2010



# Sodus Central School District Sodus, New York

www.soduscsd.org

Revised - 11/1/06 Sodus District Technology Committee Jeff Lisanto Sodus Technology Coordinator

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# Sodus Central School District Computer Technology Committees 2007-20010

# **District Technology Advisory Committee**

Jeff Lisanto Bob Antonucci Jeff Tuma Al Autovino Deb Brown Julie Gelina Becky Olson Parent Karen Rawden Mary Heidenreich Char DeFisher Anneliese Bopp Gene Hoskins John Robbins Community Member Martha Adams Mary Ange Maureen Dunning Nelson Kise Steve Moore Susan Salvaggio Student Member

# MS/High School Technology Committee

Chris Watson Martha Adams Rob Wahl Bob Antonucci Mary Heidenreich Jeff Lisanto Kathy Byers

# Intermediate Technology Committee

Dennis Bastian Anneliese Bopp Mary Ange Karen Rawden Jeff Lisanto Jen VanKouwenberg

# Primary Technology Committee

Joe Keeney Tina Spano Jeff Tuma Char DeFisher Jeff Lisanto Becky Olson

# **Strategic Objective - Strategy # 12**

We will develop a technology plan that will empower students and staff to use a variety of technologies as tools in achieving the strategic objectives.

# The five original action plans.

# **Staff Development**

The school district will provide teaching staff ongoing support for technology and relevant staff development.

# Curriculum

Technology will be integrated into curriculum areas.

# Software

Continue to use established process for the selection, purchasing, distribution, maintenance and evaluation of software.

# **Current Staffing**

Technology Coordinator
FTE Technician
Computer Technology Teaching Assistants (Pri., Int., MS, & HS)
Audio Visual/Phone Technician

# **Student Helpers**

Encourage student technician participation through the District's Work Experience program.

# Hardware

To implement a comprehensive, long-term plan for acquiring, utilizing and recycling hardware.

# **Vision and Purpose**

Through technology, the Sodus Central School District will be a hub of information access and a model of life-long learning for the school and community.

Our purpose is to provide the resources and training that will empower students and staff to use a variety of technologies as tools in achieving the following strategic objectives:

100% of our students will be achieving their personal goals.100% of our students will be academically competent as demonstrated by successful completion of their cooperatively developed personal academic plans.100% of our students at all levels will exhibit a passion for learning.

# Beliefs

- 1. There is a need for an ongoing process of technological training, support, planning, recycling, evaluation, and resource allocation to achieve the strategic objectives (listed above).
- 2. The use of technology should be integrated throughout the entire K-12 curriculum.
- 3. Technology needs to be accessible to staff, students, and community.
- 4. School should be a technological center to the community.
- 5. The use of technology fosters more active and enjoyable learning for students.
- 6. The use of technology enhances problem solving ability.
- 7. The teacher should be the facilitator in the learning process.
- 8. Technology gives students opportunities to learn and grow at different rates while maximizing their individual potential.

# **Action Plan**

**Belief Statement #1-** There is a need for an ongoing process of technological training, support, planning, evaluation, and resource allocation to achieve the strategic objectives

Task	Responsible Person(s)	Timeline	Benchmarks	Est. Cost
Provide technology staff development and training.	Tech. Coord., Computer TA's, Qualified staff, BOCES EduTech	Ongoing	Training sessions.	Approx. \$3,000/yr. Budg. Pg.23
Provide technical and application support.	Tech. Coord., Computer Technicians, Computer TA's, BOCES	Ongoing	Compiled Technician forms.	Reg. staff BOCES Tech Budget pg.23
Provide technology planning.	Technology Coord., District Tech. Committee	Jan. 2007, Ongoing	Updated Tech. Plan.	None
Provide technology evaluation.	District and Building Tech. Committees	Ongoing	Written recommend as needed	None
Provide resource allocation and explore funding sources with the recycling of technology included.	Superintendent, Technology Coord. Business Official, BOE	July 1st yearly	Tech. Budget & Grants as appropriated.	Computer Technology Budget pg. 23

**Belief Statement #2-** The use of technology should be integrated throughout the entire K- 12 curriculum.

Task	<b>Responsible Person(s)</b>	Timeline	Benchmarks	Est. Cost
Integrate computer technology throughout K-12 curriculum.	Technology Coord., Director of Curriculum, Comp. TAs, District Teaching Staff District Staff Developers Edutech	Ongoing	Summary in Tech. Plan, Staff reports compiled, pg. 10	Included in Tech. Budget pg. 23

# Belief Statement #3- Technology needs to be accessible to staff, students, and community.

Task	Responsible Person(s)	Timeline	Benchmarks	Est. Cost
Provide technology accessibility to staff.	BOE, Superintendent, Technology Coord.	Ongoing	2 or more Computers & printer in every classroom, access to peripherals.	Capital Proj., State Aid, Local Budget, Grants
Provide technology accessibility to students.	BOE, Superintendent, Technology Coord.	Ongoing	Computers in classrooms & labs w/access to peripherals.	Capital Proj. State Aid Local Budget
Provide technology accessibility to the community.	BOE, Superintendent, Technology Coord. Computer TA's, Teachers	Ongoing	Evening classes as budget allows	\$3,000/yr when budgeted

# Belief Statement #4- School should be a technological center to the community.

Task	Responsible Person(s)	Timeline	Benchmarks	Est. Cost
Enable the school to be a technological center to the community.	BOE, Superintendent, Tech. Coord.	Ongoing	Report on community use.	Approx. \$2,000 when budget

Belief Statement #5- The use of technology fosters more active and enjoyable learning for

students.

Task	Responsible Person(s)	Timeline	Benchmarks	Est. Cost
Support Teachers and Staff on providing technology use.	Dir. of Curr., Tech. Coord., Computer TA's	Ongoing	Observing students creating projects & using technology.	None

Belief Statement #6- The use of technology enhances problem solving ability.

Task	Responsible Person(s)	Timeline	Benchmarks	Est. Cost
Evaluate student outcomes related to problem solving ability.	Dir.ofCurr., Tech.Coord. Teaching Staff	Ongoing	Revisions in curriculum & software purchases.	Included in software budget pg.23

Belief Statement #7- The teacher should be the facilitator in the learning process.

Task	<b>Responsible Person</b> (s)	Timeline	Benchmarks	Est. Cost
Provide staff dev. for integrating technology into the curriculum.	Dir.ofCurr.,Tech.Coord., Edutech, Comp.TA's, Teachers including WOW sessions	Ongoing & as staff is ready.	Training Sessions through WOW.	\$3,000/yr. Included in Tech. budget pg. 23

**Belief Statement #8-** Technology gives students opportunities to learn and grow at different rates while maximizing their individual potential.

Task	<b>Responsible Person(s)</b>	Timeline	Benchmarks	Est. Cost
Evaluate existing curricular opportunities for students to individualize and adjust.	Dir. Of Curr., Tech. Coord., Individ. Teachers & Comp. TA's	Ongoing	Software requests.	Current & proposed software budget pg.23

#### Background

The Sodus Strategic Planning Team comprised of staff, students, parents and community approved a Strategy, which resulted in the development of a long-range technology plan for the district, which was approved by the Sodus Board of Education in Feb. 1995. The vision of this plan states that:

# Through technology, the Sodus Central School District is to be a hub of information access and a model of life-long learning for the school and community.

In order to meet this vision, a Sodus Community Group raised \$200,000 for the purchase of technological equipment in the Sodus Central School District. This \$200,000 was applied to the N.Y.S. Building Aid Program, which contributed approximately one million dollars of state funds to the project. Sodus CSD had \$1,200,000 to spend during the 2-year period providing a great technological infrastructure.

The major emphasis of the first phases of the plan was to concentrate on staff development and add infrastructure (LANs, workstations, and software). When the Technology Action Team developed the plan for adding hardware, they agreed to support two platforms, Mac and PC (IBM compatible), and left the decision of platform up to the building to decide based on the needs of their students and teachers. This first phase has been completed. The second phase of integrating the use of technology into all curriculum areas is ongoing. This is the important next step that our district and building committees are continuing to working on.

Sodus is also participating in the LAKENET Project which has connected our LAN to the other 47 participating districts and the Internet. This along with our local infrastructure provides us with a great highway for information and communication.

With voter approval of the Phase II Capital Project came another opportunity to upgrade Sodus CSD's computer technology. Phase II Capital Project construction was completed January, 2002. Included in this phase was \$500,000 for the expansion of computer technology district wide. Of this amount, \$200,000 was assigned to add infrastructure with the remainder going to purchase equipment and upgrade our current LAN.

The Computer Technology part of the Phase II Capital Project included the following:

- Upgrading of our current LAN including 100 MEG switched technology and 2 new file servers. - Supplying each new classroom with two or more computers and a printer.

- Rewiring the District for cable TV and video.
- The addition of a new MS and Intermediate computer lab.
- The addition of a new modular ScanTek 2000 MS Technology Room.
- The upgrading of computers in HS Room 171.
- New computers for both the new Intermediate and new MS/HS libraries.
- Upgrading the District's financial software from CP to Finance Manager.
- The conversion of the Intermediate Building from Macintosh to PC compatible computers.

#### **Planning for the Future**

At Sodus, we have spent the last few years planning for the future. This planning has resulted in building an infrastructure to support our students and staff. Building level committees have been established to develop the educational delivery system for this infrastructure. We need to continue to do a great deal of staff development, which will help our teachers make the transition from dispensers of information to facilitators of learning.

The decisions we have made about purchasing hardware and software have been driven by the specific student and administrative needs generated by building level committees, departments and administrator cabinet. These committees have been evaluating what software and hardware will best address their curriculum and office objectives. This curriculum integration makes it possible to identify currently available sophisticated software and

hardware that can be adapted to the needs of students and teachers. The district level computer committee has developed a procedure for each building committee to follow for the approval of software requests.

After analyzing the needs of our students and the software that can meet these needs, the Primary and Intermediate buildings originally decided to use Macintosh computers in their computer labs and classrooms. During the 2001-02 school year the Intermediate building finished the conversion from Macintosh to PC computers. During the school year 2003-04 the Primary building started converting from the Macintosh platform to PCs with one PC assigned to each classroom. That same year all computers able to run Windows XP were upgraded to allow for a much more secure LAN. The Middle School and High School continue to prepare our students for the world of work and recognize the need for students to have real world hardware and software. In re-inventing our business program and adding Advanced Computer Applications, Computer Graphics, BA/BCA and CAD courses in the Technology Department, the staff is currently training these students on PCs (IBM compatible) so they will be ready for the job market. Also, in recognizing the need to have our students prepared to use computers, all ninth graders will be taking a keyboarding and computer applications course. This course will utilize the approved standardized software package Microsoft Office (Word, PowerPoint, Access and Excel). The other departments in the Middle School and High School will be examining the specific needs of their students before making a decision about which software to use.

For several years one classroom in our high school had two-way video conferencing and distance learning capabilities through a RAITN Distance Learning initiative. This cross-contract BOCES COSER has since been discontinued.

#### **Most Recent District Wide Initiatives**

Some of our more recent District wide initiatives include the addition of a "Remote Access" server allowing all staff members remote access to the District's internal network and many network applications such as School Master, Finance Manager, etc.. The addition of a Microsoft Exchange email server opened the door for the District to move away from BOCES GroupWise web email to MS Exchange Outlook Web Access. All administrators and office secretaries use Outlook 2003 to utilize many of its shared features including calendars for effective communication.

A three year plan to provide wireless portable workstations for teachers and all leadership positions district wide has begun and will finish in 2009. During the summer of 2006 a district wide wireless network was installed and accessible using these portable workstations.

The District also plans to implement a BOCES housed SIF (Schools Interoperability Framework) server. The goal of this initiative is to make it possible for school administrators, teachers and other school personnel to have access to the most current and accurate data available. To accomplish this, data is entered only once in one application and automatically propagates to other applications. Our SIF compliant applications include; School Master, Versatrans, Mandarin, Horizon, IEP Direct and Active Directory.

#### **Current Computer Technology**

Currently we have the following technology in place for use of our students, staff and community.

- Automation of all school libraries.
- 15 student workstations, 1- 24 unit wireless laptop cart, 3 administrative workstations in the MS/HS library.
- At least two computers and a printer in each Primary, Intermediate, MS & HS classroom.
- A computer lab with 25 computers in the Primary School.
- A computer lab with 25 computers in the Intermediate School.
- A computer lab with 25 computers in the Middle School.
- A computer lab with 20 computers in the MS Technology room
- A CAD Lab with 20 computers in the High School.
- Two computer labs with 25 computers each in the High School.
- Five networked file servers running Windows 2003 Server with a tape backup system and district wide virus protection. Networked applications include: School Master (student records), M3 (library automation), Finance Manager (payroll), Versatrans (bus management), IEP Direct (<u>Spec.Edu</u>.), Horizon (lunch line management), Trackit (Technology & Facilities help desk software) and home directories for every staff member and student.
- One Microsoft Exchange Server running Exchange 2003 email.
- All Administrative staff use MS Outlook 2003 with shared calendars enabled.
- One Microsoft Terminal Server for remote access from home to our network and staff directories.

- A LAN that is connected to LAKENET allowing Internet access for students and staff use.
- All administrators, teachers, teaching assistants, teacher aides and many students have an internet email account (OWA) which can be accessed from anywhere in the world. Email is the preferred method of communication throughout the school district.
- All administrators, teachers, teaching assistants, teacher aides and students using computers have a logon user name and a personal directory on the file server which can be accessed from a PC or Macintosh computer anywhere in the district.
- The Board of Education has adopted an acceptable use policy for computer use, internet control filtering and web page development.
- A mobile, wireless computer cart with 10 HP laptop computers in the HS and a mobile wireless computer cart with 10 Macintosh iBooks in the Primary School.
- A wireless mobile cart with 24 IBM wireless laptops in the HS.
- Two mobile carts with a laptop and a projector in each building.
- A District Wide wireless network.

The following courses and programs are currently utilizing our new computers:

- All Primary and Intermediate School students have scheduled computer lab time.
- All ninth grade students take Keyboarding and Computer Applications.
- All tenth grade students take a Career Education Course which uses the Choices software to explore career options from a computer.
- A Business Program in the High School Curriculum uses the PC Labs. Courses include: BA/BCA, Accounting, Advanced Computer and Architectural Drawing Applications.
- A CAD course in the Technology Curriculum with its own PC Lab.
- A World of Technology course has been added to the HS Technology Dept.
- A Computer Graphics course in the High School Art Curriculum.
- Library research integrates CD-ROM and Internet resources.
- Computer labs are open for student use during Study hall and after school from 2- 3:00 P.M. each day.
- All computer labs are open for community use in the evening when requested and budgeted.
- Occasionally evening computer courses are offered for community members as desired.

Other programs and information utilizing the Sodus CSD's computer resources.

- Clusters of six or more computer workstations in a single classroom for the purpose of integrating, supporting and enriching curriculum in those classrooms. More classrooms using computer clusters are planned when funding permits.
- A district Web Page providing up-to-date information about our school district, community and student activities has been established.
- Teacher created classroom web pages
- Wayne County Educational Cable Channel 6 was established to communicate school related information and activities to the community. Approved information is added and published in addition to having student assistance with the format.

#### **Staff Development**

The Technology Coordinator, Staff Developer, Director of Curriculum Instruction, Building Principals, EduTech and building level Technology Committees are all responsible for the planning, coordination and implementation of technology staff development throughout the Sodus CSD. As technology needs are identified, staff development sessions will be provided through the WOW process and as stand alone workshops. Integration of technology will be the goal as staff learns how to use various programs and equipment. Each workshop participant will be provided an evaluation form at the end of the training and will be used as feedback for improvements and future technology offerings.

Technology staff development is ongoing and is an integral part of technology use. Computer and software training will be provided at all levels and for both instructional and non-instructional personnel. At anytime staff members can request technology training for software, hardware or the integration of either with instructional or non-instructional connections.

# Integrating Technology into the K-12 Curriculum

The following paragraphs originating from specific teachers describe how technology is integrated in various levels and subject areas throughout the Sodus Central School Dristrict.

# **Primary School**

# Pre-K

Pre-Kindergarten uses computers in the lab and classroom to learn basic computer skills. The students develop an aware of the different computer parts and how they are used. They learn how to maneuver the mouse and recognize the letters on the keyboard. Programs used to support their coordination are **Mouse Practice**, **Kid Pix**, and **Bailey's Book House**. They also have used **Millie's Math House** to learn patterns, counting, and shapes.

# Kindergarten

#### Language Arts

Reading skills such as letter recognition and phonetic concepts are developed and reinforced with programs such as **Jumpstart Phonics, I Spy Junior, Blues' Clues ABC Activities, Kid Keys, Bailey's Book House** and **Jump Start Kindergarten. Electronic** or **Living books** are also used. These programs help students recognize and learn new words as well as comprehend what they mean. They also help students to learn, beginning and ending sounds and rhyming.

ClarisWorks for Kids is used for writing, illustrating stories and learning the keyboard.

The Internet is used to find activities that support what is being learned in the classroom.

**Mouse Practice** and **Kid Pix** are used to help students manipulate the mouse, follow directions, and develop hand – eye coordination. **Kid Pix** also teaches students to draw, paint, use stamps, and others tools.

#### Math/Science

James Discovers Math reinforces counting, number concept, pattern, shapes, critical thinking and number sentences. I Spy and I Spy Junior give practice in sorting and classifying and patterns. Unifix cubes are used to create patterns and counting to 100.

Millie's Math House is used for counting, basic addition and subtraction, shapes, and patterns.

**Sammy's Science House** is used in conjunction with a weather unit. Sammy's also supports other concepts such as, building simple machines, sorting and the environment.

# First Grade

#### Language Arts

**ClarisWorks for Kids** and **Kid Pix** helps students learn a multitude of lifelong word processing skills - from finding letters on the keyboard to writing, illustrating and editing stories. Electronic or Living books help students learn to listen and pick up new vocabulary and concepts, many of which reflect the standards. **Jumpstart Phonics** reinforces phonetic skills and letter recognition.

**I** Spy! Spooky Mansion is used in conjunction with a Halloween unit; it introduces students to new vocabulary and encourages them to follow the clues to solve the mysteries.

#### Math/Science

**Money Town, Numbers Undercover** and **James Discovers Math** help students with a variety of math concepts, such as money, simple addition, subtraction and measurement. Students used the stamps in Kid Pix to create collections of 100 objects and Unifix cubes to create 100 Day projects.

**Jump Start 1st Grade** also reinforces math and language arts skills. The Internet is used to find information and activities that support the learning going on in the classroom.

Sammy's Science House includes activities about seasons and weather, sorting, sequencing and habitats.

# Second Grade

#### Language Arts

**ClarisWorks for Kids, Apple Works, Easy Book Deluxe** and **Kid Pix** are used for all kinds of writing projects. Students learn to edit their work, use the spell checker, illustrate by drawing or importing graphics, and save to the server. They have used templates to create calendars.

I Spy Spooky Mansion introduces students to new vocabulary and encourages them to problem solve.

#### Math/Science/Social Studies

**The Tenth Planet** programs correlate very well with the grade level's math program. Students can make journal entries that explain the process they used to solve a problem. This supports both the math and language arts curriculum.

Numbers Undercover, Ms. Infinity's Math Mansion, Smart Steps Second Grade and I Spy Spooky Mansion also reinforce math concepts.

**Discover Time** is integrated into second grades unit on telling time, it help students learn to tell time this program has a progress report and teachers can monitor the progress of students. **The Penny Pot** and **Numbers Undercover** are used in conjunction with a unit on money.

Make a Map is used to introduce student to a unit on maps and map reading.

Jump Start 2nd Grade correlates with skills in many subject areas, such as math, science and geography. Activities correlate to NCTM and NCTE/IRA standards.

#### <u>Technology</u>

Students use the Internet for information and for activities that correlate with what they are learning in the classroom. One example is www.funbrain which is used to create word searches with the students' spelling words. Students have used many other websites to explore the planets, authors and strengthen math skills.

The Magic Applehouse is used to teach students basic computer skills and terminology. In addition students are also introduced to how a business can used technology in many ways.

Students learn to use **M3**, an electronic catalog of the resources in the Primary Library. They continue to use it throughout the year to find books or materials to complement what they are learning in the classroom and to pursue personal interests. They use the technology in the library to do research, write up stories or reports and create slide shows. **Kid Pix, AppleWorks** and **ClarisWorks for Kids** are the most frequently-used programs.

#### <u>Enrichment</u>

Some second grade students participate in an enrichment group. Student use a variety of software programs that encourage them to problem solve, organize information, and use deductive reasoning. Programs used to reinforce these skills are **Super Solvers Gizmos** and **Gadgets**, **Mission THINK**, the **Logical Journey of the Zoombinis**, **Techno K'nex** and the **Incredible Machine**.

# **Primary Staff**

Teachers use a variety of programs to create home-school communication, such as newsletters, websites, emails and **MS PowerPoint** presentations. Teachers use **Microsoft Office** tools to create student worksheets, parent communications, lesson plans, plan books and progress reports. Newsletters are used to communicate classroom happenings at each grade level. Email is used to communicate with parents and staff.

The library and kindergarten are two examples of websites that parents can access for information about the Primary school. The library website features research units being taught, suggested reading for children, the featured artist, the featured authors and what's happening in the Primary School.

The electronic catalog, **M3** is also used by staff to access the database of materials available to them. The Kindergarten web site features information for parents, ELA and Math Benchmarks, a sight word list, and showcases some of the units the students have completed.

A **PowerPoint** presentation is used at Kindergarten orientation for parents to experience a day in kindergarten. Power Point presentations are also used for Character Education and the end of the year celebration.

## **Software Resources**

#### **Pre-Kindergarten**

**Mouse Practice** Silly Noisy House Incredible Coloring Machine Jumpstart Pre-School Jumpstart Pre-K How many Bugs in a Box More Bugs in a Box How things work in Busytown Maisy's Playhouse I Spy! Junior Bailey's Book House James Discovers Math Blue's Clues ABC activities I Spy! School Days Jumpstart Kindergarten Jumpstart Phonics Living Books (Assortment) Apple works

#### **First Grade**

Mouse Practice KidPix Claris For Kids James Discovers Math Bailey's Book House Sammy's Science House I Spy! Spooky Mansion Jumpstart First Grade The Magic Applehouse

# **Intermediate School**

# Kindergarten

Mouse Practice KidPix Kid Keys Claris For Kids Millie's Math House Sammy's Science House Numbers Undercover Internet Exlorer (Internet) Living Books (Assortment)

#### Second Grade

Living Books (Assortment) Kid Pix Claris For Kids Ms. Infinity's Math Mansion Smart Steps Second Grade Make A Map The Magic Applehouse Tenth Planet- Place Value Tenth Planet- Combine & Break Jumpstart Second Grade Internet Explorer (Internet) Discover Time Numbers Undercover

# Third Grade

#### Language Arts

Microsoft Word provides tools for students to draft, revise, edit, illustrate and publish their writing: thank you notes, letters to pen pals, reports and original stories. To accomplish this end, students work on keyboarding skills; copy, cut and paste functions; inserting clip art; copying relevant illustrations from the internet; using spell check and different fonts, styles and sizes of print.

Individual software programs also enhance the English/Language Arts programs by giving students more exposure and practice with reading skills. Such software programs are *Reading for Meaning; Roots, Prefixes, and Sufixes; Spelling Blaster, Jumpstart* programs; and *Living Books.* 

#### <u>Science</u>

The 3<sup>rd</sup> grade science curriculum has been enriched by the availability of unique resources on the Internet. While studying Insects, for example, students have done research on sites such as <u>www.monarchwatch.org</u>; <u>www.enature.com</u>; and <u>http://express.howstuffworks.com/noway.htm</u>.

While using the science kit, **Gathering Data**, they have created graphs of data using *The Graph Club* and *Graphers*.

Individual software programs, such as *My First Amazing Science Explorer; Magic Schoolbus Explores the Human Body; My Amazing Human Body;* and *Science Court work & Simple Machines* enhance different science units covered in Third Grade.

#### Social Studies

Students use the Internet to locate information on celebrations around the world, famous people and other subjects. When studying different communities around the world the CD versions of several <u>Quest</u> programs are available to supplement the curriculum.

#### **Mathematics**

Students have used many software programs to strengthen their math skills. These programs include: *Carmen* Sandiego Math Detective; Fizz & Martina's Math Adventures: Blue Falls Elementary; Math Blaster programs; Math Munchers; Math Arena and Turbo Math Facts.

#### Fourth Grade

#### Language Arts

**Ultra key** is used as a tool to introduce keyboarding skills. Students learn basic word processing skills by using **Microsoft Word** to create stories, letters and reports. **MacMandarin** is used in the classroom and Library to help students select books and find information on specific topics. Online encyclopedias are used for research on topics such as: Animals- include **Encarta, Funk and Wagnalls. Grammar Rock** is used to support students in learning parts of speech, sentence structure and editing skills. **Reading for Meaning** is used to improve reading comprehension with literature focusing on main idea, inference, sequence, compare and contrast and cause and effect.

#### <u>Math</u>

Using **Graph Club** students create graphs after collecting data. To support problem solving **Math Arena** is used. **Turbo Math** is used to provide drill/practice of facts. Also used to support math facts is a program entitled **Math Essentials.** 

#### Social Studies

The Internet is used for research, as well as scavenger hunts that provide information on topics related to 4th grade curriculum. Life in Colonial America will be used to support what life was like in New York during this time period. Links from the Sodus home page related to Social Studies are explored, as well as videos from WXXI.

#### Science/Health

**Brain.Pop** familiarizes students with information on a variety of topics that support the 4th grade curriculum. Some topics include: energy, fossils, dental health, digestion, electricity etc. **Science Court** is used to introduce topics including: fossils, water cycle, seasons and electrical circuits.

# Fifth Grade

#### Language Arts

**Microsoft Word** is used for creating of stories, letters, and reports and teaching the skill of spell check. "Microsoft Word" is the medium used for creating covers using draw for reports and stories, creating storyboards using draw, for the creation of a word processing document and inserting graphics as well as creating a newsletter with text, graphs, and graphics. Lessons on creating Email were taught through the districts email program, **GroupWise**.

**Reading for Meaning** is a program designed to assist teachers in instructing five skills commonly found in reading comprehension curricula: identifying the main idea, making inferences, sequencing events, comparing and contrasting, and determining cause and effect.

#### Social Studies

**Microsoft Word** allows students to create travel brochures with photos and text about a country and graph information about a country in a research <u>report</u>. <u>TimeforKids.com</u> is a website used to read current event topics, **Oregon Trail II** to support learning the trails to the west, **Civil War II** to support the curriculum around the Civil War period. **AdventureTime** CD ROM by MacMillan McGraw Hill is used by students and staff to supplement their text. **World Book Encyclopedia** and **Encarta** are used for research of famous Black Americans, famous women in America, and countries of Central and South America. **GeoBee Challenge** reinforces concepts taught in Geography of the World unit. Collected research on the **Other Americas** is gathered and presented through **MS Power Point.** The **Lewis & Clark Expedition** website is used to reinforce westward expansion activities.

## Math, Science, and Technology

**Ultimate Human Body CD** to familiarizes students with the systems of the body and teaches specific detail about the respiratory system. **Math Arena, Math Essential, Math Munchers, Math Blasters** and **Math Mysteries** are used to problem solve skills in real life situations and build math skills for life long use.

**Ice Cream Truck** is a business simulation for students in grades 2 -6. In this simulation, students buy ice cream from a warehouse and sell it at several locations in town. Students must consider the temperature, the time of day, and their customers' ice cream preferences when making purchasing decisions. The program comes with an easy-touse spreadsheet that allows students to analyze the data from their business transactions. The success of the student's business is dependent on the student's ability to make mathematically sound decisions.

The **Graph Club** is an innovative, easy-to-use tool for creating, exploring, interpreting, and printing graphs. The program's friendly, hands-on environment helps young students make the transition from graphing with manipulatives to graphing in the abstract. As students create and compare up to five different graph types, they develop essential graphing skills.

**Gizmos & Gadgets** teaches Physical Science, math, logical reasoning, problem-solving and critical thinking skills. Force and Motion presentations are created using **MS Power Point**.

# **Unified Arts**

# <u>Intermediate Art</u>

Within the arts, students are to be able to use a variety of media including digital media. Students develop skills to use electronic media as a means of self- expression to achieve these standards. Using digital media is a growing part of the Intermediate School's art curriculum.

- Internet research art history, virtual field trips to art galleries
- Art Dabbler- computer graphics
- Digital Camera record of art work produced, claymation, flipbooks
- Art CDs virtual field trips, self directed learning
- Digital Microscope Various projects throughout the year at all three grade levels.

#### Music

Currently utilizes the COW and the Computer Lab at least once a month. We have implemented the program <u>Alfred's Essentials of Music Theory</u>, Volume 1. The district also owns, but has not yet implemented, volumes 2 and 3 of the same program.

Students are able to use the computer to learn basic music theory and listening skills. It is our goal to have students complete volume 1 by the end of their 5<sup>th</sup> grade year and to implement volumes 2 and 3 into their Middle and High School music classes. The program allows the student to keep track of their progress and repeat areas in which they need extra help.

Alfred's Essentials of Music Theory, Volume 1 includes lessons, exercises, and assessments on the following

topics:

Unit 1	
Lesson 1: The Staff, Notes, & Pitches	Lesson 4: The Grand Staff & Ledger Lines (the middle notes)
Lesson 2: Treble Clef& Staff	Lesson 5: Ledger Lines (low & high notes)
Lesson 3: Bass Clef& Staff	
Unit 2	
Lesson 6: Note Values	Lesson 8: 4/4 Time Signature & Note Values
Lesson 7: Measure, Bar Line, & Double Bar	Lesson 9: Whole, Half& Quarter Rests
Unit 3	
Lesson 10: 2/4 Time Signature	Lesson 12: Dotted Half Note
Lesson 11: <sup>3</sup> / <sub>4</sub> Time Signature	Lesson 13: Ties & Slurs

<b>Unit 4</b> Lesson 14: Repeat Sign, 1st & 2nd Endings Lesson 15: Eighth Notes	Lesson 16: Eighth Rests Lesson 17: Dotted Quarter
<b>Unit 5</b> Lesson 18: Dynamic Signs	Lesson 19: Tempo Marks
Unit 6 Lesson 20: Articulation Lesson 22: Flats Lesson 24: Naturals	Lesson 21: D.C., D.S., Coda, & Fine Lesson 23: Sharps
Lesson 25: Whole Steps, Half Steps & Enharmo	onic Notes

\*Each Unit contains and ear training lesson and a unit review (assessment). Reviews are printed and placed in student portfolios upon completion of each Unit.

#### Intermediate Library

In the Intermediate Library, technology is frequently used for research and independent learning.

Students in 4<sup>th</sup> grade get instruction to review the use of **WEB OPAC**, an online electronic catalog of the library resources in the Intermediate Library. Students continue to use it throughout the year and on to 5<sup>th</sup> and 6<sup>th</sup> grades to find books or other materials to complement what they are learning in the classroom, and to pursue personal interests. Teachers make use of the WEB OPAC also.

Students use CD-ROM's and the Internet to play educational games on various topics like math, geography, art, language, science, history and more during free choice times.

Students also use CD-ROM's, online databases and the Internet to do research on topics of interest, and to complete classroom assignments. They have access to the **Grolier** database which includes the **New Book of Knowledge**, and various dictionaries, a thesaurus, and an atlas. They have access to the **EBSCO** database which includes a magazine index, **Funk and Wagnall's Encyclopedia**, and a dictionary.

Students frequently create and publish documents for assignments.

# **Middle School**

Various software programs are used when integrating technology into many Middle School curriculum subject areas.

#### <u>Math</u>

**Microsoft Word** and **Excel** are used for math projects that include pie and bar graphing along with a written summary of the entire project. This assignment also requires the use of the internet to gather data and compile.

**Carmen Sandiego, Clue Finders, Divide & Conquer, Fraction Attraction, Math Arena, Math Blaster, Math Munchers** and **Math Workshop** are available and used during Math Review time in the computer lab. Eighth grade students are encouraged to attend the review which is held every Thursday from 3-5 pm beginning in December and running until April. Software is also available in math classrooms to reinforce use of math concepts.

#### ELA

Students have been using **Microsoft Word** to write essays, book reports and develop stories. This provides them with the opportunity to learn and use basic, as well as, advanced word processing skills. They also use the internet for researching.

#### Social Studies

The internet is used for research for projects on countries, structures and the civil war. **WXXI's Online Streaming Video** is used to supplement curriculum work on that particular area of study. This visual use of technology reinforces the classroom instruction done on paper.

## <u>Science</u>

A large percentage of the science grade (for grades 6, 7 and 8) comes from the Science Fair Project which is judged and viewed in March of each year. Students are required to find a project, do the experiment, collect the data, hand in a research paper and present the project before fellow classmates. This major undertaking begins in September and includes the use of word processing, internet, electronic library/databases and a spreadsheet. Students have used digital cameras and scanners to aid in producing the display.

## **Technology**

Currently and into the foreseeable future the Middle School Technology Education program is using the Scan Tek 2000 Modular Technology Program by LJ Technical Systems.

The program emphasis is placed on linking math and science to technology activities. This computer- controlled environment allows students to learn while the management system monitors and evaluates their progress. The management system allows instant feedback to both students and teacher. The **Scan Tek 2000** program also provides math and reading tutorials, which are automatically integrated into each module of study, allowing students who may need additional support in the **Scan Tek 2000** environment to receive it. The computer becomes part of a multi-mode learning experience.

Each module incorporates the use of a pre-test, assignments and post-test to lead students step-by-step through the computer based tutorial and evaluation. Through the use of the Scan Tek 2000 system the students learn M.S.T. skills, reading skills, and research skills while completing hands on technology activities. Each computer-based module provides peripherals that allow for hands on activities. A wind tunnel, hydraulic, pneumatics and mechanism trainers are just a few of the peripherals that students learn from on a daily basis. Students are additionally exposed to computer aided instruction (CAI), video, textbooks, and reference guides in the instruction and learning process.

Please see the following page and highlighted modules for a complete listing of modules being used and the skills being addressed by each module. Technology education at Sodus Middle School is about the use of technology to teach technology with the emphasis on learning by doing.

#### Home & Careers

Career searching, healthy eating and 8th grade portfolios are some of the areas in which technology is used. A unit on career exploration allows the students to gather information on their future occupation by searching the online **Occupational Outlook Handbook.** A daily food intake calculation is done through a USDA interactive site. Scanning and digital photography are used in creating portfolios which will be on display in March.

#### <u>Art</u>

Students are introduced to **Painter 5.5** software, which is used to manipulate artwork. They also have the opportunity to use the digital camera. Students store digital pictures of their art work and self portraits into a student shares folder, on our district's network, where it will follow them until their graduating year.

- Internet research art history, documentary photography, photo history, photo galleries
- **Painter 5.0** computer graphics, typography, sketchbook credit, design roughs
- Photoshop typography, composition/alterations, independent study
- **Premier** computer graphics, independent study
- Quick Time several Quick Time movies are complete
- Scanner and digital cameras used by all students for 1 or more assignments

All courses have 5, 10, 15 and 20 week portfolios – evidence of technology and the documentation. Students have used computers to solve graphic problems for Spartan business cards and prom tickets.

#### Foreign Language

The internet is a great tool when studying a foreign language. Students have the capability of using the language translator online when gathering information for projects. Some of the projects have included weather forecasting,

yearly calendars and Spanish speaking countries. Some student projects were presented in the classroom via the laptop/projector cart on **PowerPoint**.

#### General Music 6 and General Music 8

Yamaha, Music In Education, Piano Keyboard Lab. Each student has their own electronic piano keyboard which is connected to the teacher's computer station. This allows the teacher to implement music lessons through the computer and keep track of each student's personal growth. Students are able to take quizzes and tests on the keyboard and apply musical concepts to the keyboard.

# **High School**

#### English 6-11

Technology is used by students to conduct research and to word process assignments. Teachers use technology to access information on the internet for preparing lessons. They also use the internet to locate interactive programs that students can use. To prepare materials for class, teachers use word processing

This course relies on technology rather heavily, for a course in English Language and Literature. There are four main units:

- Technical writing, a simulation which requires students to produce business letters, memos, proposals, and technical drawings; they must also use appropriate technology to build a scale model of the product they have designed after viewing a video of the problem situation.
- British literature, which uses proprietary program called Accelerated Reader to have students selfassess their comprehension. In addition, spoken word tapes and literary videos are used to familiarize the students with British English.
- Graduation portfolio that requires students to do online searches of databases for information about career opportunities, scholarships, applications, etc. As well, we use computer programs to design pages for each of 29 standards met
- Lord of the Flies, which comprises study of the novel, viewing of two film versions and a complex simulation game in which students have to develop and pretend to run a utopian society on a south sea island. They must research and use the skills they have developed in other courses, including Tech courses, to meet the requirements, and they must "order" the survival materials from online sources.

#### English AIS

I attempt to use technology as often as possible with my students. I develop documents—handouts, assignments, warm ups, study sheets—on the computer using **Microsoft Word.** I research and download information, lesson plans and reading materials for students from internet sources regularly. I also give students work time on the computer. For example, my 9th grade students will be conducting a web quest, where they will go to the computer room and visit recommended internet sites in order to research information on Martin Luther King, JR. They will take notes and write about him and his role in the Civil Rights Movement. If I were to have access to additional technology sources such as computer projectors, in-class television, VCR, DVD players, overhead projectors and additional computers, my students would have increased interaction with technology. I use the available technology daily; my students use it perhaps two or three times per month.

#### **Advanced and Intermediate Phonetics**

- Use the internet for research on books, linguistics and materials.
- Course and lesson goals are listed in a database. They can be brought up and used as needed. Goals can be mixed into various lessons, or individualized for different students.
- **PowerPoint** is used to create graded and timed word lists. (flash cards)
- **PowerPoint** is used for presentations of goals and phonetic rules.
- Students use MS Word to write stories in "story starter" exercises.
- Individualized lesson plans are prepared and stored on computer, and can be printed out or adapted and reused as needed.
- Word is used to measure reading passages and obtain readability statistics.
- Comprehension tests are stored by ability level and printed out as needed by individual students. x **MS Word** is used to prepare and measure readability of cloze passages.
- Reading passages and cloze passages are scanned and distributed to a class as needed.

- Newspaper Articles and stories are downloaded.
- Vocabulary lists are dictated on word and students can check their spelling then look up synonyms in the thesaurus.
- Clip art is used and downloaded. Students use it to illustrate stories or to prepare outlines so the can tell a story.
- Word is used to make word match games like *Concentration*, and print them out on business size cards.

#### <u>Math</u>

- Microsoft Word Word docunets and creation of tests, quizzes and warmups. x Examgen – Creation of tests, quizzes, warm-ups.
- Mathtype used to properly type mathematical symbols, formulas, and equations.

#### <u>Art Department</u>

- Internet- Research & Art History (7-12), European, multi cultural, documentary photography, photo history, contemporary arts and crafts, etc.
- **Painter 5.0** Middle School Art, class work, design roughs, and portfolio documentation. All students create and maintain a digital portfolio until graduation.
- Photoshop 5.5 high school 9-12, class work, design roughs, portfolio documentation, Computer

#### **Graphics**

- All students create and maintain a digital portfolio until graduation.
- Ulead video editing and DVD movies created in Computer Graphics I & II.
- Scanners and Digital Cameras used by all students for class assignments and design work, and portfolio documentation.

#### <u>Health</u>

Students have used the Internet and **Infotrac Health Reference Database** to print articles on various health issues. These articles are used as references for position papers in Health 11.

#### Science (MS and HS)

Science Curriculum Excel Worksheets (Tables, Graphs, Formulas) Chemistry & Physics

Projectors:

- Uses
  - VHS Videotapes,
  - > DVDs,
  - Computer files (Student Work),
  - > Internet
- Benefits: 8' Screen opposed to a TV monitor

Document Camera

Uses

- Demonstrations,
- Display student work,
- Microscope,
- ➢ Experiments,
- Textbooks,
- Other Resources
- Benefits
  - ➢ Zoom In/Out,
  - Classroom Lights are on opposed to lights out for other OH projector,
  - No need for Transparencies
  - Engages students they really like presenting with this

Cost Comparisons

TV Monitor (No longer required when there is a VCR/DVD tuner) Cart with Straps to hold TV in place and other security cables Cost of Transparencies Copying Transparencies (Copy time, Toner and Copier wear) Color resources without the expense of using a color copier

# <u>Chemistry</u>

Computer generated templates are used to write lab reports.

#### **Technology**

**Car Builder** and **Dam Builder** software are used in the Technology room computer lab for our Tech–6 classes and Tech-7 classes.

Our Engineering Drawing I, Engineering Drawing II and Residential Design courses use **AutoCAD2006®** which is the leader in design software. **AutoCAD2006®** is a powerful 2D and 3D design and drafting platform that automates design tasks, and provides digital tools so we can focus on the design rather than the software itself. The students in these courses can enhance their creativity and make the most of the computer and all of its related peripherals.

The students also use:

- Broderbund 3D Home Architect Deluxe 3.0 3D home design software
- <u>Mastercam Mill V7.1</u> introduction of CNC (computer numeric control)
- <u>Rhinoceros Version 3.0</u> introduction of NURBS modeling

Students also use Digital Cameras, printers, a plotter and scanners to create a Design Portfolio that is checked periodically.

#### <u>Library</u>

In the high school library, virtually every research project incorporates electronic resources in conjunction with established printed resources. For example, students may use the print resources such as <u>Readers' Guide to</u> <u>Periodical Literature</u> and <u>SIRS Current Issues</u> or an electronic resource such as <u>Opposing Viewpoints</u> <u>Resource Center</u> to find information in periodicals. Perhaps the biggest problem we face is training students and staff how to search for and evaluate information from this wide variety of sources, both print and electronic.

#### <u>Business</u>

- **Basic Computer Applications** this class is an introductory course (usually taken in the 9th grade year) which instructs students how to use the computer for their educational purpose using the following software:
- **Type To Learn** is utilized to assist and reinforce keyboarding skill building.
- **MS Word** is used for basic word processing and document formatting for reports and business letters.
- MS Excel is used for basic spreadsheet functions and to create graphs/charts from worksheets.
- **MS PowerPoint** is utilized for the creation of basic electronic presentations using slide backgrounds, transitions, effects, and graphics.
- **Internet Explorer** students learn to use the Internet as a resource for research, proper Internet etiquette and how to determine reliable sources on the Internet.

<u>Career Education</u> – this class is a career exploration course (usually taken in the  $10_h$  grade year) which instructs students how to use the computer for educational purposes to explore careers using the following software:

- **MS Word** is used for word processing and document formatting for resumes, cover letters, and documents for the student's graduation portfolio.
- **CHOICES** is utilized for career exploration. Choices allows students to answer questions to career surveys, search for specific occupations, and gather information on colleges.
- **MS PowerPoint** is utilized for the creation of basic electronic presentations to presentinformation for business plans and business proposals.
- Internet Explorer students use the Internet as a resource for research on careers, localjob openings, and virtual college tours/visits.

## <u>Marketing</u>

An upper level business elective for 11<sup>th</sup> and 12<sup>th</sup> graders. Students utilize the following software packages:

- MS Word is used for basic word processing and document formatting for reports and business letters.
- MS Excel is used for basic spreadsheet functions and to create graphs/charts from worksheets.
- **MS PowerPoint** is utilized for the creation of basic electronic presentations using slide backgrounds, transitions, effects, and graphics.
- Internet Explorer students learn to use the Internet as a resource for research and proper Internet.

#### <u>Accounting</u>

• **MS Excel** – is used for basic accounting functions in the creation of accounting documents (Worksheets, Income Statements and Balance Sheets).

#### <u>Yearbook</u>

- Walsworth Photo Editor this software is sent to us from our Publisher. It is used to view student and staff pictures taken by the professional photographer.
- Walsworth Database Editor this software is sent to us from our Publisher. It is used to view student and staff names submitted by the professional photographer.
- Adobe Photoshop is used to enhance, edit, and convert scanned and digital pictures so they are compatible with Adobe PageMaker.
- **HP SCAN JET** used to scan pictures that were not submitted digitally.
- Adobe PageMaker used to create the H.S. Yearbook. Students learn to create pages, place digital images, tag images, frame images, insert text, use various fonts, use spot and four color, use of master pages, panel maker plus and the Walsworth Enhancements which allow special effects on the pages.
- **MS Word** is used for basic word processing and document formatting for advertising, typing articles (which are then pasted into PageMaker).

#### <u>Music Department</u>

#### **Music Theory**

- Finale Notepad: Allows students to write music and print it.
- Internet: research for music composers and music

Piano Keyboarding: Yamaha, Music In Education

- Internet: research musical composers, music history, listen to music
- Word: Writing research papers
- Finale Notepad: Writing music
- Keyboard lab

#### **Concert Choir**

• Internet: Research papers for program notes

#### **Concert Band**

• Internet: Research papers for program notes

# District Wide Computer Technology Inventory Summary

(As of 11/01/06)

#### Bus Garage

- 1 Hub
- 4 Admin. Office Computers
- 1 Network Printer
- 1 Officejet Printer
- 1 InkJet Printer
- 1 Digital Camera

## District Office

- 10 Admin. Office Computers
- 5 Laptop Computers
- 6 Network Printers
- 3 InkJet Printers
- 1 Network Docucenter Copier
- 1 Color Docucenter Copier
- 2- Digital Cameras
- 3–

#### Primary Building

- 11 3COM 24 Port Switches
- 27- Classroom PC Computers
- 21- PC Laptop Computers
- 8 Macintosh Laptop Computers
- 45 -Macintosh Desktop Computers
- 50 Classroom Printers
- 1 Wireless Laptop Cart w/10 ibooks
- 4 Projectors
- 1 Docucenter Copier
- 26 PCs in Computer Lab
- Intermediate Building
- 12- 3COM 24 Port Switches
- 12 PC Laptop Computers
- 62 PC Desktop Computers
- 12 Network Printers
- 26- Classroom Printers
- 2 Network Docucenter Copiers
- 11 Digital Cameras

#### 9 - Admin. Office Computers

- 1 25 PC Computer Lab
- 12 Library PCs
- 6 Projectors

#### Middle/High School

- 28 3COM 24 Port Switches
- 1 CISCO Router
- 5 Network File Servers
- 25 PC Laptop Computers
- 2 Wireless Computer Cart with 34 Laptop PC computers
- 26 Network Printers
- 149 PC Desktop Computers
- 42 Classroom Printers
- 1 RICOH Printer
- 3 Network Docucenter Copiers
- 5 Projectors
- 4 25 PC Computer Labs
- 1 20 PC CAD Computer Lab
- 14 Library Computers
- 32 Admin. Office Computers
- 16 Digital Cameras

#### Technology/Facilities

- 5 Admin. Computers
- 1 Security Card Access Computer
- 1 Heating/Cooling Computer
- 5 Network File Servers
- 1- MS Exchange Server
- 2 Digital Camera
- 2 Projector
- 1 Cable Telecommunication Line

## **District Wide Technology Budget**

The District Technology Budget must be able to respond to the ever-changing world of technology in order to affect student learning. As the District Technology Plan is reviewed every year, each succeeding year's budget will also be updated as approved.

There are many components to consider when planning each year's computer technology budget. Many of these areas include: recycling hardware, software, supplies, upgrades, repair, training, support, networking, staff development, web page development and updates, cable channel 6, student records management, district wide licenses, anti-virus, administrative applications, inventory, etc.

#### The 2006-07 approved budget included:

Local Budget			
Computer Supplies (District Wide)	30,000 (ink, toner, diskettes, CDs, etc.)		
Local Software (District Wide license)	15,000 (Win XP, MS Office, etc.)		
Local Computer Equipment	12,000 (replace peripherals etc.)		
Computer Repair	11,120 (repair equipment)		
Summer/Vacation/Evening	9,260 (Staff Dev, Web Page, Ch.15, Lab Upgrades)		
AV Supplies (District Wide)	11,000 (overheads, AV bulbs, etc.)		
AV Contractual	4,000 (Staff Development, repair equipment)		
AV Equipment	4,000 (Equip. for BOE mtgs., district mtgs. etc.)		
Live Weather Camera and station	8,400 (live camera, PC, weather station equipment, etc.)		
State Aided Budget			
State Aided Computer Equipment	\$21,712 (or State assigned amount)		
(replacement student computers)			
State Aided Software	\$21,032 (or State assigned amount)		
(student software)			
BOCES Request for Services 2006-07			
EduTech Request for Services (instructional of (School Master, Finance Manager, IEP D	& administrative) - \$296,117 Direct,		
BOCES Equipment (instructional & administr	rative) - \$85,000 (Continue recycle plan)		
District Wide Wireless	\$105,135		
(inc. 44 Wireless access points, 45 portable w	vorkstations)		
AV Equipment (TVs, carts, digital video mixed	er) \$11,375		

#### Assessment and Evaluation of the District's Technology Plan

Evaluation of this plan is an ongoing and continual process. The Technology Committee will continue to meet on a regular basis to assess the District's progress toward meeting its goals. In addition, the committee will reevaluate the validity of the goals as they relate to the current needs of the district. It will continue to be the responsibility of the committee to recommend modifications to the plan on a yearly basis.

Areas of progress to be assessed by the District Technology Committee will include:

- o Student computer usage
- o Staff computer usage
- o Staff development
- o Using Staff Development evaluations
- o Using Survey of students, staff and community
- o Using Needs assessment survey
  - student/client and staff technology skills, knowledge and attitudes
  - client/student access to information services
  - staff development programs relating to technology
  - information management and administrative applications
  - technology support staffing
  - equipment needs
  - software requirements
  - facilities
  - networking and telecommunication requirements
  - budget and funding resources
  - technology planning process
- o Student and staff hardware and software support
- o Technology Coordinator
- o Computer Lab Teaching Assistants
- o Technology Office Help desk
- o Computer Technician
- o EduTech

The Technology plan is viewed as a "live" document. The Technology Committee will review the plan annually, its contents, progress toward goals and overall relevancy given the rapidly and continuously changing technology in education and society.

#### Web resources:

Sodus Central School District Web Page <u>www.soduscsd.org</u> Safe Kids <u>http://www.safekids.com</u> Stop Cyberbullying <u>http://www.stopcyberbullying.org/</u> Netsmartz <u>http://www.netsmartz.org/</u> Get Net Wise <u>http://www.getnetwise.org/</u>

#### GLOSSARY

Accessibility - The process of obtaining data from or placing data in storage.

Applications - Software used with information supplied by the user. Also known as a program (e.g., word-processing, spreadsheet, presentation programs).

Automated Library - Libraries with computerized cataloging, indexing, circulation systems and online databases with links to other library facilities.

Backbone - The portion of a network used to connect smaller sub-networks.

CD-ROM - (Compact Disk Read Only Memory) Amass storage device attached to a computer, usually to provide access to encyclopedias, dictionaries, databases, courseware.

CD-RW – (Compact Disk, Re-Write) Amass storage device attached to a computer that holds up to 650 MB of data and allows the user to rewrite to the disk over and over.

Central database - A vast and continuously updated file of information, abstracts, or references on a particular subject or subjects.

Compatibility - The ability of programs or equipment to be translatable or executable on more that one type of equipment.

CPU - Central Processing Unit of a computer. Often refers to the computer chip around which the entire computer is built.

Curriculum Integration - The use of computers and computer software to advance instructional objectives in the classroom.

Database - An organized set of information that can be searched, manipulated, and reported in a variety of ways by using the computer. It is like a large file cabinet that can be quickly rearranged on command.

DOS - Disk Operating System used on IBM compatible computers.

Electronic Mail - The process of sending, receiving, storing, and forwarding messages in digital form over telecommunications facilities from one computer to another.

Fiber Optic Cable - A thin filament of glass or other transparent material through which a signal encoded light beam may be transmitted.

Hardware - Physical computer equipment.

Hub - Networking equipment, normally placed in wiring closets, which terminates the wires forming, for example, a building's local area network.

In-service - Teacher / staff education workshops (ongoing training while employed).

Internet - A collection of computer networks connected via gateways (computers running specialized software).

LAN - (Local Area Network) A system for linking terminals, programs, storage and graphic devices at multiple workstations over relatively small geographic areas for rapid communication and exchange of information.

Microcomputer (PC) - Small desktop computer usually running stand-alone applications; may be a component in a local area network or attached workstation.

Modem - Acronym for Modular Demodulator. A device that modulates and demodulates signals transmitted over communication facilities.

Multi-media - A system that permits communications via video, graphics, text and/or sound.

Multimedia Computer - Includes Laser disk / CD ROM / video / audio

Network - Links multiple computers and other computing resources together, whether they are in the same room, or in multiple rooms or buildings. Networks allow computers to communicate with one another, permit computers to share printers or peripherals, and provide multiple computers access to centralized collections of software programs.

On-line - The operation of peripherals or workstations in direct interactive communication via network. May also be used to describe terminal equipment connected to a transmission line. Also pertains to a user's ability to interact with a computer, either via the console or a terminal.

PC - A computer using the Windows 98, 2000 or XP operating systems. Often referred to as IBM compatible.

Peripheral - A device attached to a computer to expand its capabilities (e.g., printer, modem, CD-ROM Drive).

Platform - A computer's hardware and/or operating system configuration such as Macintosh, DOS, Windows, and UNIX.

Operating System- Software that controls the execution of programs and the basic operations of a computer.

Real Time - Updating information as changes are entered.

Server - A computer on a network that stores data and applications and can be downloaded to the requesting PC to execute in the requesting PC.

Software - A term coined to connect computer programs with the hardware of a computer system. Software programs are stored sets of instructions, which govern the operation of a computer system and make the hardware run.

Technology - Any tool that facilitates the learning/working process.

WAN - Wide Area Network. A communication network that provides the interconnection of a variety of devices (e.g., computers, printers, modems, terminals, LANs) within a large area and/or between multiple buildings.

Windows - A graphical user interface (GIU) often used with DOS operating system on E3M compatible computers.

Wireless – A method of connecting a computer to a network and the Internet without physically connecting that computer to the network using wires.