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INTRODUCTION

In the 1993 Board-Staff Workshop, the Salem School Board presented a challenge to the teachers and staff of all Salem Schools. That challenge was to design a comprehensive plan for the acquisition and use of the latest available instructional technology. The focus of technology use was to be on instruction. Quick, easy access to information, communication outside the classroom, and enhanced presentation tools provide the teacher unparalleled resources for effective instruction.

This plan is a vision of the technological future of the City of Salem School Division grounded in the realities of the budget. Time lines and equipment descriptions are offered as guides to that future--not as constraints on individual school's needs.

Since the first Salem Technology Plan was completed in 1995, great progress has been made in providing the infrastructure and equipment needed for effective instructional use of technology. Technology use is becoming ubiquitous. From the classroom to the cafeteria, computer-based operations are reshaping the way our schools do business. Some notable accomplishments are:

- establishment of a network to allow electronic communication within each building and across the division to City Hall;
- acquisition of internet access through a T-3 connection shared with Roanoke College;
- purchase of 17 mobile wireless computer labs on carts;
- purchase of software for data storage and disaggregation to aid in long-range planning;
- purchase cafeteria management system for all schools;
- provision of staff training through one-on-one training, division-wide staff development, and design and funding of college courses;
- purchase of a student information database/scheduling program;

- development of a technology curriculum for all subject areas, at all grades K-8;
- installation of an internet content filter;
- installation of a telephone in every classroom in the division;
- and, development of a web-page for the division and for each school.

The emphasis for the future will center around staff training, the use of technology for teaching and learning, and administrative uses of technology such as on-line work orders, job applications, inventory, and cafeteria and maintenance orders and reports. The establishment of a redundant wide-area network and wireless local-area networks will be major areas of endeavor in the next six years.

Many thanks are owed City Council and the School Board for their support, insight, and the provision of funding, which have been essential in moving us so quickly toward our goals. The continuing challenge facing the School Division is to make use of the available technology to improve instruction and student learning.

PHILOSOPHY

The City of Salem School Division is committed to providing the most appropriate instructional technology available to allow teachers to provide students the best instruction possible. Technology is a tool to be used in guiding students to experience success as complex thinkers, effective communicators, self-directed learners, and involved citizens. Students must have the opportunity to use on-line tools and resources for communication and research, to develop word processing skills to increase the quantity and quality of thinking and writing, to solve complex problems using databases, spreadsheets and computer-assisted design programs, and to experience high-interest levels of learning through the use of computer technology.

Our school system must be prepared to provide each student with an education based on the needs and expectations of the community and the world at large. New partnerships must be formed to ensure that our school system continues to reflect the needs and desires of the community. To this end, not only must we make full utilization of technology as a tool for instruction, but we must also provide an infrastructure for a collaborative effort which involves business, community agencies, parents, teachers, and students.

VISION

In keeping with the tradition of excellence in the City of Salem School Division, the integration of technology into all areas of curriculum, instruction, administration, and productivity is a priority for long-range planning. Salem Schools will continue to support further technological growth and change, along with a core-foundation of audio, video, computer, and presentation hardware and software for the purpose of providing Salem students the best possible instruction in the most efficient manner.

Concurrent with the acquisition, upgrading, and constant maintenance of equipment and materials, there will continue to be training provided in the use of available technology for all affected staff. The ultimate goal is to make the use of technology a transparent means to effect the ends of instruction and student learning.

INSTRUCTIONAL USE OF TECHNOLOGY

It is no accident that this section on the instructional use of technology comes first in the overall Technology Plan. There is no more important consideration for a school division in dealing with technology than that of how the technology will be incorporated into the overall curriculum as a viable tool for teaching and learning. Technology should not be viewed as a goal in and of itself. Without an ongoing plan for using technology as a vital part of the instructional program, all other parts of a technology plan would be largely unnecessary. In order to accomplish these goals students and teachers must maintain proficiency in the use of technology related to the content of each individual subject. In addition, emerging technology needs to be evaluated for its application to teaching and learning.

GOALS

1. Technology instruction will begin in kindergarten and continue through the twelfth grade.

2. Technology instruction will be kept fresh and up-to-date with the inclusion of new and emerging technologies as they occur.

3. Technology will be used to enhance instruction in as many areas of the curriculum as possible.

4. Professional staff will demonstrate knowledge of the use of technology in instruction and related educational activities while adhering to the Standards of Learning.

GOAL 1: **Technology instruction will begin in kindergarten and continue through the twelfth grade.**

Target 1: Ensure that all students receive instruction in the use of technology throughout their years in Salem schools.

Direct Benefit to Teaching & Learning: Prepare students to function in a technological society.

Current Reality: Technology instruction is being integrated at all grade levels.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Students in grades K-12 will be given opportunities to use available technology including laptops, microscopes, calculators, and science probes.	• Classroom Teacher • Principals • Director of Instruction	Ongoing	Teacher observation and evaluation	N/A
Students will develop technology skills as outlined in the *City of Salem Computer/ Technology Skills for K-12*.	• Classroom Teachers	Ongoing	Teacher observation and evaluation	N/A
Review and update the technology curriculum biennially to conform to the Standards of Learning and emerging technologies.	• Director of Instruction	2004-2005 and Ongoing	Updated version of the technology curriculum distributed to each teacher	3 reviews @ $250/each Total $750.00
Teachers will document technology skills taught.	• Teachers	Ongoing	Lesson plans	N/A

Goal 1 Target 1 Six-Year Total $750

GOAL 2: **Technology instruction will be kept fresh and up-to-date with the inclusion of new and emerging technologies as they occur.**

Target 1: Ensure that teachers are trained in the latest technologies available in the school division.

Direct Benefit to Teaching & Learning: Students will be better prepared for the workplace.

Current Reality: Even though teachers have made advances in their knowledge of technology, there remain discrepancies in knowledge and training. These differences are related to individual interest levels, curriculum assignments, and in-service opportunities.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Evaluate emerging technology for application to instruction.	• Technology Coordinator • Division-wide Technology Committee	Ongoing	Records of the Technology Committee	N/A
Inform school division staff of new technology developments in the division through email and newsletters.	• Technology Coordinator • Principals	Ongoing	Copies of emails and newsletters	N/A
Train staff in the effective use of appropriate instructional technology.	• Technology Coordinator • Staff Development Council	Ongoing	In-service evaluation documents	$5,000/year Total $30,000.00
Explore the instructional implications of providing a laptop or tablet PC to every teacher and student.	• Director of Instruction • Division-wide Technology Committee	2005	Record of meetings	N/A

Goal 2 Target 1 Six-Year Total $30,000

GOAL 3: **Technology will be used to enhance instruction in as many areas of the curriculum as possible.**

Target 1: Provide hardware, software, and Internet access to enhance classroom instruction.

Direct Benefit to Teaching & Learning: Provide students with a technology-rich learning environment.

Current Reality: Hardware, software, and Internet access are in place; however, utilization varies widely.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Teachers will make use of technology in providing instruction in all subjects.	• Principal • Classroom Teacher	Ongoing	Teacher observation/ evaluation	N/A
Teachers will use computer software in remediation when appropriate.	• Classroom Teacher • Director of Instruction	Ongoing	Lesson plans	N/A
Teachers will use e-mail and/or class web pages to communicate with parents.	• Classroom Teachers • Principals	Ongoing	Teacher report during evaluation conference	N/A
Teachers will be encouraged to use the network servers to share ideas and presentations.	• Principals • Classroom Teachers	Ongoing	Information saved to the network servers	N/A

Goal 3 Target 1 Six-Year Total $0

Goal 4: **Professional staff will demonstrate knowledge and use of technology in instruction and related educational activities while adhering to the Standards of Learning.**

Target 1: Ensure that teachers attain competency in the use of technology.

Direct Benefit to Teaching & Learning: Ensures that teachers will be able to make use of technology in classroom instruction.

Current Reality: All teachers employed by the City of Salem School Division have demonstrated proficiency in the State required Technology Standards.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Division expectations for teacher competency in the use of technology will be evaluated and reviewed periodically.	• Director of Instruction • Director of Assessment & Technology	2004-2005 and as needed thereafter	Technology Standards in the office of the Director of Instruction	3 reviews @ $250/each Total $750.00
Teachers will use technology in instruction, as appropriate, throughout the school year.	• Principals	Ongoing	Lesson plans and evaluation conferences	N/A

Goal 4 Target 1 Six-Year Total $750

INSTRUCTIONAL USE OF TECHNOLOGY SIX-YEAR TOTAL $31,500

EDUCATIONAL AND ADMINISTRATIVE APPLICATIONS

Technology in Salem City Schools is used for instruction, efficient data collection, and record keeping. It is also used to communicate with parents, students, and the community. To meet the needs of teaching and learning, technology should be user friendly and effective. Staff are expected to use information technology to analyze student performance and subsequently make changes in curriculum and instruction.

GOALS

1. Improve teaching and learning through the appropriate use of network accessible educational applications.
2. Promote and develop web-based applications, services, and resources.
3. Provide on-line learning opportunities.

Goal 1: **Improve teaching and learning through appropriate use of network-accessible educational applications.**

Target 1: Identify, develop, and communicate teaching and learning resources that effectively support the Virginia Standards of Learning (SOL).

Direct Benefit to Teaching & Learning: The availability of software resources and internet access through the local network provides teachers with massive amounts of information which can be used in instruction.

Current Reality: The school division has curricular materials on-line. Teachers can access the State Department of Education web-site for access to training information, instructional strategies, and SOL released tests. Grade-level chairs, coordinating teachers, and department heads work with the Director of Instruction to coordinate and communicate this information to all staff. Every classroom teacher has direct access to the Internet.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Provide access to teachers and students to web-sites such as www.SOLpass.org for test practice.	• Director of Assessment & Technology	Ongoing	Teacher lesson plans	N/A
Insure that adopted texts are correlated to the SOL's.	• Director of Instruction	Ongoing	Record of textbook adoption process	N/A
Communicate URL's of safe and accurate internet web-sites for use in instruction.	• Librarians	Ongoing	Email from librarians to staff	N/A

Goal 1 Target 1 Six-Year Total $0

Goal 2: **Promote and develop web-based applications, services, and resources**

Target 1: All schools will participate in the Virginia On-line SOL Testing Initiative as such testing becomes available.

Direct Benefit to Teaching & Learning: The SOL testing window can be scheduled later in the year. High school students can retake end-of-course tests more frequently. Computers purchased for testing will be available for instruction during the rest of the year.

Current Reality: Currently, only the high school has sufficient numbers of computers to test on-line. In 2004, on-line testing did occur at the high school in all courses which have an available on-line test.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase sufficient mobile computer labs to allow for on-line testing in all schools.	• Director of Assessment & Technology • Technology Coordinator	2004-2010	Inventory and purchase records	Included in hardware plan

Goal 2 Target 1 Six-Year Total $0

Goal 2: **Promote and develop web-based applications, services, and resources.**

Target 2: Make use of web-based applications for data collection, data warehousing, reporting, and instruction.

Direct Benefit to Teaching & Learning: Staff can easily access information, reduce paper tasks, store, and retrieve data efficiently.

Current Reality: Local network-based applications include the Win School student database, emergency forms, budget forms, and human resource information. Web-based applications include streaming video, EDSL and ANGEL.

Target 2 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase IEP management software.	• Director of Student Services • Technology Coordinator	2005	Purchasing records	$20,000.00
Upgrade to the new web-based version of Win School.	• Director of Business Services • Technology Coordinator	2006	Purchasing records	$20,000.00
Purchase hardware and software for optical storage for historical records.	• Technology Coordinator	2008	Purchasing records	$12,000.00

Goal 2 Target 2 Six-Year Total $52,000

Goal 2: **Promote and develop web-based applications, services, and resources.**

Target 3: Implement strategies for providing community access to school-based technology.

Direct Benefit to Teaching & Learning: The School Division will achieve improved communication with parents and the community. Community access to the Divison's technology will promote goodwill and increase support for technology expenditures. Alignment of curriculum with the needs of the business community would also improve.

Current Reality: Free courses in basic computer operation and word-processing are being offered three times per year to senior citizens.

Target 3 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Offer classes to community members.	• Director of Instruction	2005 & ongoing	Record of participation	Self-supporting except $1,200/year to pay for free senior citizen classes. Total $7,200.00
Establish a committee to investigate the feasibility of providing public access to school technology resources.	• Director of Assessment & Technology	2006 and ongoing	Report of Committee	N/A
Provide inservice on web-page development.	• Staff Development Council • Technology Coordinator	2004 and when needed	Record of participation	$4,500.00
Encourage web-page development by each teacher.	• Principals	Ongoing	Presence of web-pages	N/A
Make laptops available for check-out for teachers and students at a rate of 1 computer per 100 students.	• Technology Coordinator • Librarians	2005 and ongoing	Records of purchase and use	Included in Hardware

Goal 2 Target 3 Six-Year Total $11,700

Goal 3: **Offer on-line learning opportunities.**

Target 1: On-line courses and on-line staff development will be supported.

Direct Benefit to Teaching & Learning: Provide staff access to professional development programs to improve pedagogy and meet NCLB and licensure standards. Students will be able to take on-line courses for credit.

Current Reality: Limited on-line learning opportunities currently exist.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Support on-line courses, seminars, and workshops to help staff improve their use of technology.	• Director of Elementary Education • Staff Development Council	Ongoing	Record of staff participation	Supported by Tuition Assistance account
Develop guidelines for accepting graduation credit for on-line courses.	• Director of Instruction	2004	Copy of guidelines in the office of the Director of Instruction	N/A
Make on-line courses available to alternative education students.	• Director of Instruction • Director of Assessment & Technology	2006	Credit accepted at Salem High School	$7,000.00
Make on-line courses available to students for courses not taught in Salem Schools.	• Director of Instruction • Director of Assessment & Technology • High School Principal	2004-2005 and ongoing	Record of participation	Students are responsible for any fees.

Goal 3 Target 1 Six-Year Total $7,000

EDUCATIONAL AND ADMINISTRATIVE APPLICATIONS
SIX-YEAR TOTAL $70,700

CONNECTIVITY - NETWORKING

Our network provides the infrastructure to support efficient use of technology in our district. While it is rarely seen, its presence and proper operation are essential to providing a seamless and stable computing experience for our students and staff.

GOALS

1. Maintain and continually update a secure network for students and staff.
2. Upgrade and enhance the Division network.

Goal 1: **Maintain and continually update a secure computer network for students and staff.**

Target 1: Maintain secure computer network.

Direct Benefit to Teaching & Learning: A secure computer network allows access to on-line SOL testing, worldwide Internet resources and prevents loss of data due to breakdown or outside interference.

Current Reality: The network in the middle and high school has a gigabit fiber backbone and all elementary schools have 100 mbs switches. Each school should have video conferencing capability. A network filter is in place. Solarwind software has been purchased to track the status of the network and a contract has been negotiated for antivirus software through 2007. The network is capable of supporting "Voiceover IP" technology, but plans are not currently in place to adopt that technology.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Maintain fiber optic network.	• Network Specialist	2004-2010 Ongoing	Operational testing	$1,000/year Total $6,000.00
Maintain the firewall.	• Network Specialist	Ongoing	Operational testing	$1,800/year Total $10,800.00
Maintain current student disk space.	• Network Specialist	Ongoing	Continued operation	N/A
Upgrade student disk space to include elementary students.	• Network Specialist	2004-2006	Equipment purchase	$5,000.00
Provide video conferencing capabilities in each school.	• Director of Assessment & Technology • Technology Coordinator	2004-2010	Inventory records	$5,000/school Total $30,000.00
Maintain and upgrade networking equipment.	• Network Specialist	Ongoing	Purchasing records	$5,000/year Total $30,000.00
Upgrade servers every three years or as necessary on a rotating basis.	• Technology Coordinator	Ongoing	Purchasing records	$20,000/year Total $120,000.00
Purchase network management software.	• Network Specialist	2006	Inventory records	$20,000.00

Target 1 Activities (continued)

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Maintain network filtering system.	• Director of Assessment & Technology • Technology Specialists	Ongoing	Continued operation	$2,500/year Total $15,000.00
Maintain desktop security software and virus protection.	• Director of Assessment & Technology • Technology Specialist	Ongoing	Continued operation	$5,800/year Total $34,800.00
Maintain regular back-up of school division data.	• Director of Assessment & Technology • Technology Specialists	Ongoing	Tape files stored in secure fire proof boxes	$1,500/year Total $9,000.00

Goal 1 Target 1 Six-Year Total $280,600

Goal 2: **Upgrade and enhance the Division network.**

Target 1: Provide redundancy to the current network.

Direct Benefit to Teaching & Learning: System-wide redundancy would allow teaching and learning to function without interruption in case of catastrophic loss of the current network.

Current Reality: We do not have a redundant network.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase and maintain a second wide-area network.	• Technology Coordinator	2004-2006	Purchasing records	$60,000.00
Develop a second data center separate from the Central Office.	• Technology Coordinator	2004-2006	Purchasing records	$5,000.00
Purchase a redundant internet connection.	• Technology Coordinator	2004-2006	Purchasing records	$2,000/year Total $4,000.00

Goal 2 Target 1 Six-Year Total $69,000

Goal 2: **Upgrade and enhance the Division network.**

Target 2: Plan for a pervasive wireless computer network.

Direct Benefit to Teaching & Learning: Wireless connectivity allows increased ease of access for on-line SOL testing and worldwide Internet access.

Current Reality: The existing wireless capabilities are limited to mobile computer carts.

Target 2 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Hire a consultant to develop a wireless technology plan.	• Director of Assessment & Technology • Technology Coordinator	2005-2006	Consultant report	$3,500.00
Purchase and install wireless network equipment.	• Director of Assessment & Technology • Technology Coordinator	2006-2010	Purchasing records	Elementary: 24 @ $800 Middle: 24 @ $800 High 24 @ $800 Total $57,600.00

Goal 2 Target 2 Six-Year Total $61,100

CONNECTIVITY - NETWORKING SIX-YEAR TOTAL $410,700

CONNECTIVITY - HARDWARE

Connectivity-Hardware refers to computers or peripheral equipment used to accomplish the educational goals dictated by an ever-changing curriculum. We must ensure that all hardware is related to integrated instructional and administrative services which allow our students and staff to achieve at the highest level possible.

GOALS

1. Provide integrated instructional and administrative technology for all students and staff.
2. Provide continued accessibility of technology in our schools.

Goal 1: **Provide integrated instructional and administrative technology for all students and staff.**

Target 1: Provide classrooms/teams with hardware for instructional use.

Direct Benefit to Teaching & Learning: Smoothly integrated technology in the classroom engages students and allows teachers to concentrate on the business of teaching and learning without worrying about the availability of the hardware used to accomplish their educational goals.

Current Reality: Salem has made good progress in providing needed technology in the classroom. The six schools in Salem are presently well-advanced in efforts to maintain facilities that reflect the current state of technological advancement. Most classrooms have at least two computers and plans are in place to increase the number to five. All computers are linked via a high-speed connection with attendance, grading, and administrative software in place where appropriate. LCD projectors are available in every school and many of the classrooms are equipped with PC-to-TV converters. Televisions and video equipment are available in every classroom. Digital cameras are readily available.

Target 1 Activities (Targeted activities are presented here by school.)
Salem High School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase seventy (70) DVD players.	• School Technology Committee	2004-2006	Inventory records	70 @ $200/each Total $14,000.00
Provide a ceiling-mounted LCD projector for each classroom.	• School Technology Committee	2005-2010	Inventory records	50 @ $1,200/each Total $60,000.00
Purchase thirty (30) wall screens.	• School Technology Committee	2005-2006	Inventory records	30 @ $125/each Total $3,750.00
Purchase fifteen (15) wireless laptop computers for individual teachers.	• School Technology Committee	2006-2007	Inventory records	15 @ $1,300/each Total $19,500.00

Goal 1 Target 1 – Salem High School – Six-Year Total $97,250

Target 1 Activities
Andrew Lewis Middle School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase new computers with CDRW drives.	• School Technology Committee	Replacement Schedule of old computers	Inventory records	Coincides with replacement costs of computers.
Purchase scanners or all-in-one printers for each team.	• School Technology Committee	2005-2007	Inventory records	15 @ $400/each Total $6,000.00
Update the Synergistics Modular Technology Lab.	• School Technology Committee	2004-2006	Inventory records	$30,000.00
Provide a ceiling-mounted LCD projector in each classroom.	• School Technology Committee	2005-2008	Inventory records	50 @ $1,200/each Total $60,000.00
Purchase PDAs for PE faculty.	• School Technology Committee	2005-2010	Inventory records	7 @ $400/each Total $2,800.00
Purchase a DVD player for each classroom.	• School Technology Committee	2005-2007	Inventory records	30 @ $100/each Total $3,000.00
Purchase one (1) digital camera and card reader per team at ALMS with at least 256mb of memory on cards.	• School Technology Committee	2005-2006	Inventory records	15 @ $450/each Total $6,750.00
Install closed circuit TV network.	• Technology Coordinator	2008-2010	Records in the office of the Technology Coordinator	$2,000.00
Purchase small mobile labs of fifteen (15) computers for (Special Ed., Integrated Math).	• School Technology Committee	2004-2007	Inventory records	3 @ 20,000/each Total $60,000
Purchase laptop for each team and for teachers split between schools.	• School Technology Committee	2005-2007	Inventory records	20 @ $1,300/each Total $26,000.00

Goal 1 Target 1 – Andrew Lewis Middle School – Six-Year Total $196,550

Target 1 Activities
East Salem Elementary School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase DVD players for every room.	• School Technology Committee	2005-2007	Inventory records	30 @ $200/each Total $6,000.00

Goal 1 Target 1 – East Salem Elementary School – Six-Year Total $6,000

Target 1 Activities
G.W. Carver Elementary School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase thirty (30) DVD players.	• School Technology Committee	2005-2007	Inventory records	30 @ $200/each Total $6,000.00

Goal 1 Target 1 – G.W. Carver Elementary School – Six-Year Total $6,000

Target 1 Activities
South Salem Elementary School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase thirty (30) DVD players.	• School Technology Committee	2005-2007	Inventory records	30 @ $200/each Total $6,000.00

Goal 1 Target 1 – South Salem Elementary School – Six-Year Total $6,000

Target 1 Activities
West Salem Elementary School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase DVD players for every classroom.	• School Technology Committee	2005-2010	Inventory records	30 @ $200/each Total $6,000.00

Goal 1 Target 1 – West Salem Elementary School – Six-Year Total $6,000

Goal 1: **Provide integrated instructional and administrative technology for all students and staff.**

Target 2: Provide a media center in each school that serves the instructional media needs of the school as well as provide for the use of technology in the media center and attached computer lab.

Direct Benefit to Teaching & Learning: A technology-rich media center can be the backbone for learning in any school. Students and teachers rely heavily on access to information obtained from the media center.

Current Reality: Each school in Salem has a media center that serves as the hub for learning resources. Every year more equipment is being purchased to keep each media center up-to-date.

Target 2 Activities
Salem High School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase one (1) ceiling mounted LCD projector with wireless keyboard and mouse in media center.	• School Technology Committee	2005-2006	Inventory records	$2,000.00
Purchase one (1) color laser printer in media center.	• School Technology Committee	2005-2006	Inventory records	$1,500.00
Purchase five additional mobile labs consisting of twenty-five (25) wireless laptops, one printer, and one LCD projector.	• School Technology Committee	2004-2007	Inventory records	5 @ $35,000/each Total $175,000.00
Purchase two (2) interactive whiteboards.	• School Technology Committee	2005-2010	Inventory records	2 @ $4,000/each Total $8,000.00
Purchase sixteen (16) laptops for check-out by students and teachers.	• School Technology Committee	2006-2010	Inventory records	16 @ $1,000/each Total $16,000.00
Purchase six (6) additional digital cameras.	• School Technology Committee	2005-2010	Inventory records	6 @ $400/each Total $2,400.00

Goal 1 Target 2 – Salem High School – Six-Year Total $204,900

Target 2 Activities
Andrew Lewis Middle School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase thirty-seven (37) computers.	• School Technology Committee	2004-2006	Inventory records	37 @ $800/each Total $29,600.00
Purchase three (3) CD burners in library: two (2) on public computers.	• School Technology Committee	2004-2006	Inventory records	3 @ $200/each Total $600.00
Purchase presentation wireless gyro mouse and keyboard (rf).	• School Technology Committee	2004-2006	Inventory records	10 @ $100/each Total $1,000.00
Purchase one (1) ceiling mounted LCD projector with wireless interface (mouse and keyboard).	• School Technology Committee	2004-2006	Inventory records	$2,000.00
Purchase one (1) color laser networked printer.	• School Technology Committee	2004-2006	Inventory records	$1,500.00
Purchase four (4) additional mobile computer labs.	• School Technology Committee	2004-2005	Inventory records	4 @ $35,000/each Total $140,000.00
Purchase five (5) all-in-one printers (mobile labs).	• School Technology Committee	2004-2006	Inventory records	5 @ $200/each Total $1,000.00
Purchase presentation mice and keyboards (mobile labs).	• School Technology Committee	2004-2006	Inventory records	6 @ $200/each Total $1,200.00
Purchase flash drives.	• School Technology Committee	2005-2010	Inventory records	5 @ $100/each Total $500.00
Purchase USB hubs with at least seven (7) ports.	• School Technology Committee	2005-2010	Inventory records	5 @ $30/each Total $150.00
Purchase video production computer.	• School Technology Committee	2005-2010	Inventory records	$2,500.00
Purchase six (6) additional electronic whiteboards.	• School Technology Committee	2005-2010	Inventory records	6 @ $2,000/each Total $12,000

Goal 1 Target 2 – Andrew Lewis Middle School – Six-Year Total $192,050

Target 2 Activities
East Salem Elementary School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Provide one (1) digital video camcorder for check-out.	• School Technology Committee	2005-2007	Inventory records	$1,500.00
Purchase one (1) color scanner.	• School Technology Committee	2004-2006	Inventory records	$300.00
Purchase three (3) wireless laptop labs.	• School Technology Committee	2004-2008	Inventory records	3@$35,000/ each Total $105,000
Purchase six (6) projection screens.	• School Technology Committee	2005-2007	Inventory records	6 @ $125/each Total $750.00
Purchase six (6) equipment carts for LCD projectors.	• School Technology Committee	2005-2007	Inventory records	6 @ $125/each Total $750.00
Purchase six (6) LCD projectors.	• School Technology Committee	2005-2007	Inventory records	6 @ $1,000/each Total $6,000.00
Purchase two (2) additional digital cameras.	• School Technology Committee	2005-2006	Inventory records	2 @ $400/each Total $800.00
Purchase one (1) electronic whiteboard.	• School Technology Committee	2006-2007	Inventory records	$2,000.00

Goal 1 Target 2 – East Salem Elementary – Six-Year Total $117,100

Target 2 Activities
G.W. Carver Elementary School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase four (4) additional digital cameras.	• School Technology Committee	2005-2006	Inventory records	4 @ $400/each Total $1,600.00
Purchase six (6) LCD projectors.	• School Technology Committee	2005-2007	Inventory records	6 @ $1,000/each Total $6,000.00
Purchase one (1) electronic whiteboard.	• School Technology Committee	2006-2007	Inventory records	$2,000.00
Purchase six (6) projection screens.	• School Technology Committee	2005-2007	Inventory records	6 @ $125/each Total $750.00

Target 2 Activities
G.W. Carver Elementary School (continued)

Purchase six (6) equipment carts for LCD projectors.	• School Technology Committee	2005-2007	Inventory records	6 @ $125/each Total $750.00
Purchase two (2) additional wireless laptop labs.	• School Technology committee	2005-2008	Inventory records	2 @ $35,000/each Total $70,000

Goal 1 Target 2 – G.W. Carver Elementary School – Six-Year Total $81,100

Target 2 Activities
South Salem Elementary School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase seven (7) laptops for check-out.	• School Technology Committee	2006-2010	Inventory records	7 @ $1,300/each Total $9,100.00
Purchase six (6) additional digital cameras.	• School Technology Committee	2005-2006	Inventory records	6 @ 400/each Total $2,400
Purchase six (6) PC-to-TV converters.	• School Technology Committee	2004-2005	Inventory records	6 @ $150/each Total $900.00
Purchase six (6) LCD projectors.	• School Technology Committee	2005-2007	Inventory records	6 @ $1,000/each Total $6,000.00
Purchase one (1) electronic whiteboard.	• School Technology Committee	2006-2007	Inventory records	$2,000.00
Purchase six (6) equipment carts for LCD projectors.	• School Technology Committee	2005-2007	Inventory records	6 @ $125/each Total $750.00
Purchase two (2) additional wireless laptop labs.	• School Technology committee	2005-2008	Inventory records	2 @ 35,000 Total $70,000

Goal 1 Target 2 – South Salem Elementary School – Six-Year Total $91,150

Target 2 Activities
West Salem Elementary School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase one (1) color scanner.	• School Technology Committee	2004-2005	Inventory records	$300.00
Purchase ten (10) laptops for teacher check-out.	• School Technology Committee	2006-2010	Inventory records	10 @ $1,300/each Total $13,000.00
Purchase four (4) additional digital cameras.	• School Technology Committee	2005-2006	Inventory records	4 @ $400/each Total $1,600.00
Purchase five (5) LCD projectors.	• School Technology Committee	2005-2007	Inventory records	5 @ $1,000/each Total $5,000.00
Purchase two (2) additional wireless laptop labs.	• School Technology committee	2005-2008	Inventory records	2 @ 35,000/each Total $70,000

Goal 1 Target 2 – West Salem Elementary School – Six-Year Total $89,900

Goal 1: **Provide integrated instructional and administrative technology for all students and staff.**

Target 3: Purchase and maintain equipment in computer labs and classrooms sufficient to meet our needs.

Direct Benefit to Teaching & Learning: Networked computer labs enable groups of students and teachers to make use of information sources and software that is available on the local area networks and the internet.

Current Reality: There is a division plan to replace computers every five years.

Target 3 Activities
Salem High School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Replace aging lab computers every four years.	• School Technology Committee	2005-2010	Inventory records	125 @ $900/each Total $112,500.00
Purchase one (1) ceiling-mounted LCD projector with wireless keyboard and mouse in each lab.	• School Technology Committee	2005-2007	Inventory records.	5 @ $2,000/each Total $10,000.00

Goal 1 Target 3 – Salem High School – Six-Year Total $122,500

Target 3 Activities
Andrew Lewis Middle School

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Replace aging lab computers every four years. Old computers will move into classrooms.	• School Technology Committee	2005-2010	Inventory records	75 @ $1,000/each Total $75,000.00
Purchase one (1) ceiling-mounted LCD projector with wireless keyboard and mouse in each lab.	• School Technology Committee	2004-2006	Inventory records	4 @ $2,000/each Total $8,000.00
Replace mobile lab computers as needed.	• School Technology Committee	2005-2010	Inventory records	$4,200/year Total $21,000.00

Goal 1 Target 3 – Andrew Lewis Middle School – Six-Year Total $104,000

Target 3 Activities
Elementary Schools

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase one (1) ceiling-mounted LCD projector with wireless keyboard and mouse in each elementary school computer lab.	• Technology Coordinator	2006-2008	Inventory records	4 @ $2,000/each Total $8,000.00

Goal 1 Target 3 – Elementary Schools – Six-Year Total $8,000

Goal 1: **Provide integrated instructional and administrative technology for all students and staff.**

Target 4: Provide a graphics art lab at Salem High School.

Direct Benefit to Teaching & Learning: A lab with this equipment presents the artist with the possibility of expanding artistic vision, of watching ideas grow, and of manipulating and integrating images. In the classroom, computers have the potential of expanding the possibilities of creative expressions.

Current Reality: This hardware is not available at this time for the students.

Target 4 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase six (6) computers for the lab.	• School Technology Committee	2005-2007	Inventory records	6 @ $2,000/each Total $12,000.00
Purchase one (1) server for video production.	• School Technology Committee	2005-2008	Inventory records	$3,000.00
Purchase one (1) color scanner.	• School Technology Committee	2005-2007	Inventory records	$350.00
Purchase one (1) inkjet color photo printer.	• School Technology Committee	2005-2007	Inventory records	$150.00
Purchase one (1) inkjet color large format printer.	• School Technology Committee	2005-2007	Inventory records	$650.00
Purchase one (1) digital video camcorder.	• School Technology Committee	2005-2007	Inventory records	$1,000.00

Goal 1 Target 4 Six-Year Total $17,150

Goal 1: **Provide integrated instructional and administrative technology for all students and staff.**

Target 5: Update the main auditorium to include rear projection and multimedia equipment at Salem High School.

Direct Benefit to Teaching & Learning: This hardware will allow for students, teachers, parents and the community to benefit from the utilization of multimedia opportunities.

Current Reality: This hardware is not available at this time in the main auditorium.

Target 5 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Install appropriate video system projector.	• School Technology Committee	2005-2010	Inventory records	$4,000.00
Install theater speaker system.	• School Technology Committee	2005-2010	Inventory records	$5,000.00
Install dimming system with light board.	• School Technology Committee	2005-2010	Inventory records	$10,000.00
Install rear projection screen.	• School Technology Committee	2005-2010	Inventory records	$10,000.00

Goal 1 Target 5 Six-Year Total $29,000

Goal 1: **Provide integrated instructional and administrative technology for all students and staff.**

Target 6: Provide video production equipment to include CD/DVD production at Salem High School.

Direct Benefit to Teaching & Learning: Various educational activities could be shared by students and teachers. The software would allow for creating advanced programs to be used in the classrooms.

Current Reality: No video production hardware is available at this time.

Target 6 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Purchase a computer system that includes digitizing and editing software.	• School Technology Committee	2005-2010	Inventory records	$2,500.00
Purchase a DVD recorder.	• School Technology Committee	2005-2010	Inventory records	$250.00

Goal 1 Target 6 Six-Year Total $2,750

Goal 2: **Provide continued accessibility of technology in our schools.**

Target 1: Maintain a replacement cycle for computers in the classrooms and offices and to increase number of computers or laptops in each classroom to five.

Direct Benefit to Teaching & Learning: Appropriately updated and maintained equipment is essential to the teaching and learning process.

Current Reality: Approximately 20% of staff computers are replaced each year, with older computers becoming class computers. Most teachers have an extra computer for student use. This number is increasing with the regular updating of classroom computers.

Target 1 Activities
All Schools and Central Office

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Provide regular replacement and upgrades to computers as machines become obsolete.	• Technology Coordinator	2005-2010	Inventory records	$56,000/year Total $280,000.00

Goal 2 Target 1 Six-Year Total $280,000.00

Goal 2: **Provide continued accessibility of technology in our schools.**

Target 2: Continue to provide maintenance and repair to the technology infrastructure.

Direct Benefit to Teaching & Learning: Properly maintained equipment is essential to the learning process.

Current Reality: The school technology committees (with the principals, librarians, and technology specialists as mandatory members) keep track of the overall picture. Technology specialists and librarians respond to individual requests when possible. Computer repair and replacement money is budgeted each year.

Target 2 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Maintain and repair of equipment and network as needed.	• School Technology Committee • Technology Specialists	2004-2010	Inventory records	$10,135

Goal 2 Target 2 Six-Year Total $10,135

CONNECTIVITY – HARDWARE NEEDS SIX-YEAR TOTAL $1,667,535

CONNECTIVITY - POLICY

The City of Salem School Division offers its students and teachers access to computers and the internet. Those resources must be used responsibly. Both staff and students must sign a statement of agreement with the policies of the Division prior to use.

GOALS

1. Direct the appropriate use of network infrastructure in the pursuit of teaching and learning.

2. Standardize the process in the schools by which AUP forms are collected and stored.

Goal 1: **Direct the appropriate use of network infrastructure in the pursuit of teaching and learning.**

Target 1: Clarify the AUP to ensure that all students and staff understand the policy.

Direct Benefit to Teaching & Learning: To keep the children safe and the network secure. To contribute to the efficiency of the network.

Current Reality: There have been very few problems with safety due to the internet filter, the email filter, and teacher supervision. The network is occasionally used inappropriately.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Convey uniform in-depth information and expectations of the school division to the staff.	• Principal	Ongoing	Record of faculty meetings	$500.00 printing costs/year Total $3,000.00
New students and new staff will sign an AUP upon arrival in the school division.	• Personnel Department • Principals	As needed	Signed forms provided to Director of Instruction.	N/A
All students and staff will sign an AUP.	• Principals	Ongoing	Signed forms in office	N/A

Goal 1 Target 1 Six-Year Total $3,000

Goal 2:	**Standardize the process in the schools by which AUP forms are collected and stored.**
Target 1:	Amend AUP form to simplify record-keeping process.
Direct Benefit to Teaching & Learning:	Simplify tracking of student acceptance of the AUP.
Current Reality	The staff may be occasionally unsure of the status of the students' AUP while using the network in teaching.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Redesign AUP form to simplify record-keeping.	• Director of Instruction	2004	Copy of the revised form in the office of the Director of Assessment & Technology	N/A
Communicate the importance of the student AUP to teachers.	• Principals	Ongoing	Record of faculty meeting	N/A

Goal 2 Target 1 Six-Year Total $0

CONNECTIVITY – POLICY NEEDS SIX-YEAR TOTAL $3,000

PERSONNEL NEEDS

The City of Salem School Division has demonstrated its commitment to the development of a technologically advanced school system by the purchase and installation of hardware, software, and networking capabilities in Central Office and each school. Technology has become as vital a component of education in Salem as textbooks and report cards, and should be maintained at the highest level possible. In order to fully utilize this technology, the areas of staffing, policy, and staff development must be addressed.

The Technology Coordinator plays an integral part in the development, maintenance, and use of technology in the City of Salem School Division. This person oversees technology-related purchases, supervises technology personnel, and assists with ongoing training and staff development. A network specialist and two technicians make up the remainder of the technology department. It is suggested that four instructional technology resource teachers be hired in 2005-2006, bringing the technology department staff total to eight.

Duties of the technology resource teachers will include elementary keyboarding instruction, integration of technology into the classroom, staff development in the use of both hardware and software, curriculum development in applying educational technology in all subject areas, and maintenance of school web pages.

The high school and the middle school already have a committee of teachers who have volunteered to be technology trainers. In addition, it is recommended that the elementary schools appoint teachers who are technologically literate to be members of a training committee whose purpose is to assist teachers throughout the building in various aspects of technology. Each school in the division has a technology committee

that meets on a regular basis to focus on the technology in the building. It is suggested that the school division appoint a system-wide technology committee to meet at least annually to guide technology acquisition and use. Membership will be drawn from each of the school technology committees.

The Internet is a valuable tool for administrators, faculty, staff, and students. Staff and students should use the Internet as a resource for teaching and learning. However, Internet use can be problematic if not used correctly. Therefore, it is imperative that students and staff understand and adhere to the Acceptable Use Policy. To support this, a guide to the laws governing copyright should be given to all employees and a copy of the Acceptable Use Policy should be signed by all teachers and all students. The Acceptable Use Policy should be posted in each lab and classroom.

Staff development in the form of courses, seminars, and workshops must continue in an effort to keep all personnel abreast of new technology. Teachers should communicate frequently with their peers regarding their uses of technology. Technology grants should be pursued to defray the cost of technology.

GOALS

1. Ensure the availability of support personnel and resources needed to provide a high level of technology access for instructional and administration.

2. Provide staff development that will enhance instructional use of technology

Goal 1: **Ensure the availability of support personnel and resources needed to provide a high level of technology access for instructional and administration.**

Target 1: Hire the additional personnel necessary to continue the development and maintenance of technology in the City of Salem School Division.

Direct Benefit to Teaching & Learning: All elementary schools will have access to an instructor to aid in providing keyboarding and technology skills to students. The instructional technology teachers will keep classroom teachers updated on the latest trends in using technology in instruction.

Current Reality: A technology coordinator, network specialist, and two technicians are currently employed.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
The school division will hire four instructional technology resource teachers to provide keyboarding and computer instruction in the elementary schools, and to assist teachers and staff members with the implementation of technology for instructional purposes.	• Director of Personnel • Director of Assessment & Technology • Technology Coordinator	2005-2006	Records in the office of the Director of Personnel	$40,000/year each, exclusive of fringe benefits. Total $800,000.00

Goal 1 Target 1 Six-Year Total $800,000

Goal 1: **Ensure the availability of support personnel and resources needed to provide a high level of technology access for instructional and administration.**

Target 2: Continue to identify employees who help maintain a high level of technology in the School Division.

Direct Benefit to Teaching & Learning: School level trainers give teachers immediate access to basic technology assistance. Through the school technology committees teachers will have an opportunity to provide input on technology purchases. Web pages provide students and parents important information pertaining to all phases of the school – particularly instruction.

Current Reality: All activities are currently in place. The Division-wide Technology Committee only meets to evaluate and revise the Technology Plan.

Target 2 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
A committee of technology trainers will be appointed at each school to work with the instructional technology resource teacher in assisting teachers with instructional use of technology.	• Principals	Ongoing	List of the committee members in principal's office	N/A Relicensure points awarded.
Each school will continue to have a technology committee to discuss software, hardware, and networking needs.	• Principals	Ongoing	List of the committee members in principal's office	N/A Relicensure points awarded.
The school division will have a technology committee comprised of employees from each school and Central Office.	• Director of Assessment & Technology • Technology Coordinator	Ongoing	List of committee members in Director of Assessment & Technology's office	N/A
The Web Publishing Policy will be reviewed in the fall of odd-numbered years.	• Technology Coordinator • Technology Resource Teachers	Ongoing beginning in 2005	Copy of policy revision, if needed, in the office of the Director of Assessment & Technology.	N/A

Goal 1 Target 2 Six-Year Total $0

Goal 2: **Provide staff development that will enhance instructional use of technology.**

Target 1: Ensure that all students and staff understand and sign the Acceptable Use Policy.

Direct Benefit to Teaching & Learning: To comply with School Board Policies.

Current Reality: All staff sign the AUP. Students and staff need to be aware of implications of the AUP and of copyright laws. A copy of the AUP is not posted in all classrooms and labs.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
The Acceptable Use Policy will be reviewed and updated annually.	• Director of Assessment & Technology • Technology Coordinator • Division-wide Technology Committee	Annually	Report of meetings to be filed with Director of Instruction	N/A
All staff will sign the AUP.	• Principals	Ongoing	Signed forms in the office of the principal	N/A
All students will sign the AUP.	• Principals	Ongoing	Signed forms on file in each students' permanent record	N/A
Post a copy of the AUP in every lab and classroom.	• Principals	Ongoing	Posted copies of AUP	N/A
Annual staff development to highlight implications of the AUP guide and copyright.	• Director of Elementary Education • Instructional Technology Resource Teacher	Ongoing	Record of training filed in office of Director of Elementary Education	N/A

Goal 2 Target 1 Six-Year Total $0

Goal 2: **Provide staff development that will enhance instructional use of technology.**

Target 2: Provide training in copyright law regarding the use of technology in instruction.

Direct Benefit to Teaching & Learning: Emphasize to students the necessity of following the law.

Current Reality: Plagiarism, whether intentional or inadvertent, is an issue that needs continued attention.

Target 2 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Develop a guide outlining copyright laws for all staff in the system.	• Director of Instruction	Ongoing	Copy of guide	N/A
Train all staff members in use of guide during a faculty meeting.	• Principals • Instructional Technology Resource Teacher	Ongoing	Principal's records of faculty meetings	N/A

Goal 2 Target 2 Six-Year Total $0

Goal 2: **Provide staff development that will enhance instructional use of technology.**

Target 3: Provide staff development training in the use of technology for instruction through classes, seminars, and workshops.

Direct Benefit to Teaching & Learning: Teachers will be able to incorporate technology into their instruction.

Current Reality: Teachers and staff have been trained to meet the State Technology Standards.

Target 3 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Provide support courses, seminars, and workshops to help staff improve technology skills.	• Director of Elementary Education • Staff Development Council	Ongoing	List of participants and activities	Costs will be supported by the division Conference account
Provide opportunities to encourage articulation among staff members about technology uses during faculty meetings.	• Principals	Ongoing	Faculty meeting minutes	N/A
Continue to search for grants to help defray cost of teacher training.	• Director of Elementary Education • Director of Instruction	Ongoing	File of grants applied for in Director of Instruction's office	N/A

Goal 2 Target 3 Six-Year Total $0

PERSONNEL NEEDS SIX-YEAR TOTAL $800,000

ACCOUNTABILITY

There is no more important consideration for a school division in dealing with technology than that of how the technology will be used as a viable tool for teaching and learning. As we add the newest technologies to our school system, we must also develop a means to assess how effectively we are using the technology to aid instruction and learning.

At this time, we do not have an assessment instrument in place to help us evaluate our technology progress. A committee will be formed to research the available assessment methods. The committee will report its findings to the Director of Instruction and make recommendations about how we can assess our use of technology to facilitate instruction.

As we utilize data to track student progress, we must ensure that the analysis is based on valid data. As a part of our analysis, we should document the level of technology skill demonstrated by both students and teachers. We must use available data to ensure the continuous updating of technology skills.

Our Technology Plan needs to be in line with the Virginia State Technology plan goals and needs to be reevaluated periodically as to progress and suitability to the goals for City of Salem School Division.

GOALS

1. Research current literature to identify proven techniques that can be used to study the effectiveness of our instructional technology.

2. Provide software and web-based applications that can be used to gather information for use when making decisions concerning curriculum and instruction.

3. Assess staff technology literacy

4. Assess student technology literacy.

5. Continue to align the local technology plans with the state technology plan.

Goal 1: **Research current literature to identify proven techniques that can be used to study the effectiveness of our instructional technology.**

Target 1: Form a committee to research current literature on ways to assess effective use of instructional technology.

Direct Benefit to Teaching & Learning: Using assessment tools will help us guide our use of technology to best impact instruction.

Current Reality All of our teachers use technology in instruction, but we do not have in place a method to determine the effectiveness of that technology for instruction.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Form a committee with representatives from all schools and Central Office.	• Director of Assessment & Technology • Technology Coordinator	September 2004	List of committee members in Director of Instruction's office	N/A
The committee will report its findings on the available research on the assessment of the use of technology in instruction.	• Director of Assessment & Technology • Technology Coordinator	June 2005	Copy of report in office of Director of Instruction	N/A

Goal 1 Target 1 Six-Year Total $0

Goal 2: **Provide software and web-based applications that can be used to gather information for use when making decisions concerning curriculum and instruction.**

Target 1: Continue to use Win School and EDSL to gather and track real-time and historical data on students and their academic progress.

Direct Benefit to Teaching & Learning: Comprehensive data on students and their performance enable decision makers to make intelligent, appropriate, and defensible plans for individual students and groups of students so that instructional plans are no longer based on anecdotal information.

Current Reality The importance of specific data has always been recognized and tracked annually. The division has recently purchased and is currently implementing a data mining tool that will enable us to more easily make goal-driven decisions. We now need to use these resources to benefit our students and provide useful information to parents relating to their child's academic career.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Continue maintaining and enhancing student information system (Win School).	• Director of Business Services • Technology Coordinator	Ongoing	Databases on file	$15,000/year Total $90,000.00
Implement and maintain data mining software (EDSL).	• Director of Elementary Education • Technology Coordinator	Ongoing	Software in use	$12,000/year Total $72,000.00
Train administrators and teachers in the use of EDSL and in the use of data in decision making.	• EDSL Implementation Team • Director of Elementary Education	2004-2006	List of attendees, list of training dates	$4,000.00
Investigate the possibility of purchasing K12-Planet, or similar program, to provide real-time student data to parents.	• Technology Coordinator	2006	Invoice on file	N/A

Goal 2 Target 1 Six-Year Total $166,000

Goal 3: **Assess staff technology literacy.**

Target 1: Ensure that all staff members are technologically literate.

Direct Benefit to Teaching & Learning: Technologically literate teachers and administrators know what technology is available and how to wisely integrate it into the curriculum. A technologically literate support staff is able to use technology to assist teachers in instruction, record-keeping, and reporting..

Current Reality: The level of technological literacy among teachers and support staff varies widely.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Update Teacher Technology Checklist every two years. It should be grade/subject appropriate and should take new technology into account.	• Director of Instruction • Director of Assessment & Technology	Fall 2004	Updated Teacher Technology Checklist on file	N/A
Teachers self-evaluate every year using Teacher Technology Checklist.	• Principals	Annual	Self-evaluation checklist on file in personnel office	$250/year Total $1,500.00
A Support Staff Technology Checklist appropriate to each position should be developed.	• Director of Technology • Principals	Spring 2005	Self-evaluation checklist on file with principals	N/A
Include the technology checklist in all staff evaluations.	• Principals • Directors	Spring 2005	Checklist on file in employee folder	$250/year Total $1,500.00

Goal 3 Target 1 Six-Year Total $3,000

Goal 4: **Assess student technology literacy.**

Target 1: Ensure that all students are technologically literate and utilize technology as appropriate for their grade levels and subjects.

Direct Benefit to Teaching & Learning: Technologically literate students will be prepared for lifelong learning and successful employment in the workplace.

Current Reality: Students appear to be technologically literate but we have no concrete way of assessing this literacy. Technology curriculum guidelines are several years old and should be evaluated.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Revise our technology curriculum checklist/ guideline for each grade level and/or subject area that complements state guidelines for K-12.	• Director of Instruction • Director of Assessment & Technology	2005	Completion of updated Technology Curriculum Guidelines on file	$250.00
New technology curriculum guidelines should be explained to teachers.	• Director of Instruction • Division-wide Technology Committee • Director of Assessment & Technology	2005	List of attendees at in-service meetings	$250.00

Goal 3 Target 1 Six-Year Total $500

Goal 5: **Continue to align the local technology plans with the state technology plan.**

Target 1: Make the Salem Six-Year Technology Plan consistent with the components of the State Technology Plan.

Direct Benefit to Teaching & Learning: The state has developed a comprehensive technology plan that focuses technology toward the improvement of teaching and learning. Aligning our plan with the state ensures that we are not omitting any of the important elements.

Current Reality: Most areas of our previous technology plans are already aligned with the State Technology Plan. Assessment is a new category that is being incorporated into this and future technology plans.

Target 1 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
State components will be included in the development of our Six-Year Technology Plan.	• Director of Assessment & Technology	Biennially	Plan evaluated as to conformity to state plan	N/A

Goal 5 Target 1 Six-Year Total $0

Target 2: Evaluate the progress and effectiveness of our technology plan on an annual basis.

Direct Benefit to Teaching & Learning: Annual evaluation of our technology plan refocuses our efforts to enhance the teaching and learning process.

Current Reality: We have engaged in bi-annual assessments of our technology plan in the past.

Target 2 Activities

ACTIVITY	PERSON RESPONSIBLE	TIME FRAME	METHOD OF ASSESSMENT	COST
Technology Plan evaluated in October each year to measure progress and reshape focus.	• Director of Assessment & Technology • Technology Coordinator	Yearly	Evaluation Report	$250/year Total $1,500.00

Goal 5 Target 2 Six-Year Total $1,500

ACCOUNTABILITY NEEDS SIX-YEAR TOTAL $171,000

APPENDIX

Appendix I

COSTS RELATED TO THE TECHNOLOGY PLAN – 2004-2006

AREA	2004-2005	2005-2006
Instructional Use of Technology		
Curriculum Review	$250.00	N/A
Staff Development	$5,000.00	$5,000.00
Review Staff Technology Standards	$250.00	N/A
Instruction Use Total	**$5,500.00**	**$5,000.00**
Educational & Administrative Applications		
IEP Management Software	N/A	$20,000.00
Classes for Community Members	$1,200.00	$1,200.00
Web-page Development Inservice	$4,500.00	N/A
Educational & Administrative Applications Total	**$5,700.00**	**$22,200.00**
Connectivity – Networking		
Maintain Fiber Optic Network	$1,000.00	$1,000.00
Maintain Firewall	$1,800.00	$1,800.00
Upgrade Student Disk Space	$2,500.00	$2,500.00
Video Conferencing	$5,000.00	$5,000.00
Maintain/Upgrade Networking Equipment	$5,000.00	$5,000.00
Upgrade Servers	$20,000.00	$20,000.00
Maintain network filtering system	$2,500.00	$2,500.00
Maintain desktop security software and virus protection.	$5,800.00	$5,800.00
Maintain regular back-up of school division data.	$1,500.00	$1,500.00
Purchase and maintain a second wide-area network.	$30,000.00	$30,000.00
Develop a second data center separate from the Central Office.	$2,500.00	$2,500.00
Purchase a redundant internet connection.	$2,000.00	$2,000.00
Hire a consultant to develop a wireless technology plan.	N/A	$3,500.00
Connectivity – Networking Total	**$79,600.00**	**$83,100.00**
Connectivity – Hardware		
DVD players (SHS, ALMS, East, Carver, South, West)	$7,000.00	$20,500.00
Ceiling-Mounted LCD Projectors in classrooms (SHS, ALMS)	N/A	$24,000.00

AREA	2004-2005	2005-2006
Wall screens (SHS)	N/A	$3,750.00
Scanners or All-in-One Printers (ALMS)	N/A	$3,000.00
Update Synergistics Modular Technology Lab (ALMS)	$15,000.00	$15,000.00
PDA's for PE faculty (ALMS)	N/A	$560.00
Digital camera & card Reader per team (ALMS)	N/A	$6,750.00
Laptop for each team at ALMS	N/A	$13,000.00
Ceiling-mounted LCD projectors with wireless keyboard and mouse (SHS, ALMS)	$5,000.00	$12,000.00
Color laser printers (SHS & ALMS)	$750.00	$2,250.00
Wireless mobile labs (SHS, ALMS, East, Carver, South, West)	$174,583.33	$244,583.32
Interactive whiteboards (SHS)	N/A	$4,000.00
Digital cameras (SHS, East, Carver, South, West)	N/A	$6,800.00
Computers (ALMS)	$14,800.00	$14,800.00
CD burners (ALMS)	$300.00	$300.00
Presentation wireless gyro mouse & keyboard (ALMS)	$1,100.00	$1,100.00
All-in-One Printers (ALMS)	$500.00	$500.00
Flash drives (ALMS)	N/A	$100.00
USB hubs (ALMS)	N/A	$30.00
Video production computer (ALMS)	N/A	$500.00
Electronic whiteboards (ALMS)	N/A	$2,400.00
Digital video camcorder (East)	N/A	$750.00
Color scanners (East, West)	$450.00	$150.00
Projection screens (East, Carver)	N/A	$750.00
Equipment carts (East, Carver, South)	N/A	$1,125.00
LCD projectors (East, Carver, South, West)	N/A	$11,500.00
PC-to-TV converters (South)	$900.00	N/A
Replace aging lab computers (SHS, ALMS)	N/A	$37,500.00
Replace mobile lab computers as needed (ALMS)	N/A	$4,200.00
Graphics Art Lab @ SHS: Computers	N/A	$6,000.00
Graphics Art Lab @ SHS: server for video production	N/A	$1,000.00
Graphics Art Lab @ SHS: color scanner	N/A	$175.00
Graphics Art Lab @ SHS: inkjet color photo printer	N/A	$75.00
Graphics Art Lab @ SHS: inkjet color large format printer	N/A	$325.00
Graphics Art Lab @ SHS: digital video camcorder	N/A	$500.00
SHS Auditorium: video system projector	N/A	$800.00
SHS Auditorium: theater speaker system	N/A	$1,000.00
SHS Auditorium: dimming system with light board	N/A	$2,000.00
SHS Auditorium: rear projection screen	N/A	$2,000.00
CD/DVD Production @ SHS: computer system that includes digitizing and editing software	N/A	$500.00
CD/DVD Production @ SHS: DVD recorder	N/A	$50.00
Replacement/upgrades to computers at all schools and Central Office	N/A	$56,000.00
Maintenance/repair of equipment and network as needed	$1,689.17	$1,689.17
Connectivity – Hardware Total	**$222,072.50**	**$504,012.49**

AREA	2004-2005	2005-2006
Connectivity – Policy		
Acceptable Use Policy (AUP)	$500.00	$500.00
Connectivity – Policy Total	**$500.00**	**$500.00**
Personnel		
Instructional Technology Resource Teacher	N/A	$160,000.00
Personnel Total	**$0.00**	**$160,000.00**
Accountability		
Maintain/enhance Win School	$15,000.00	$15,000.00
Implement/maintain EDSL	$12,000.00	$12,000.00
EDSL Training	$2,000.00	$2,000.00
Teacher Technology Checklists	$250.00	$250.00
Staff Technology Checklists	$250.00	$250.00
Revise our technology curriculum checklist/ guideline for each grade level and/or subject area that complements state guidelines for K-12.	N/A	$250.00
New technology curriculum guidelines should be explained to teachers.	N/A	$250.00
Technology Plan evaluated in October each year to measure progress and reshape focus.	$250.00	$250.00
Accountability Total	**$29,750.00**	**$30,250.00**
GRAND TOTAL	**$343,122.50**	**$805,062.49**

Appendix II

NUMBER OF WIRELESS MOBILE LABS NEEDED BY SALEM SCHOOLS

School	Total # labs needed for instruction & testing	# Labs in place	# Labs to purchase by 2006	Additional # Labs to purchase by 2010	Total cost of needed labs @ $35,000 each
Salem High School	16	11	2	3	$ 175,000
Andrew Lewis Middle	7	3	4	0	140,000
East Elementary	3	0	2	1	105,000
GW Carver Elem.	3	1	1	1	70,000
South Elementary	3	1	1	1	70,000
West Elementary	3	1	1	1	70,000
TOTAL	**35**	**17**	**11**	**7**	**$630,000**

Mobile Laptop Lab Purchase Schedule		
Year	**Labs to Purchase**	**Cost**
2004-2005	7	$245,000
2005-2006	4	$140,000
2006-2007	1	$35,000
2007-2008	2	$70,000
2008-2009	3	$105,000
2009-2010	1	$35,000

SCHEDULE FOR UPDATING THE COMPUTER LABS AT EACH SCHOOL

Fixed Computer Lab Upgrade Cycle (25 Computers/Lab)

2004-2005 SHS 113, ALMS Lib-Lab
2005-2006 South, SHS 111
2006-2007 West, East, GW Carver
2007-2008 ALMS 111, ALMS 211, SHS 112
2008-2009 ALMS Foreign Language Lab, SHS 113, ALMS Library Lab
2009-2010 SHS 111, South

Appendix III

File: IIBEA
(Page 1 of 2)

STUDENT USE OF ELECTRONIC INFORMATION SERVICES AND COMPUTER NETWORKS

The Salem City School Division offers its students access to the Internet and on-line computing. The Internet is an electronic highway connecting hundreds of thousands of computers and millions of individual users all over the world. Electronic information research skills are now fundamental needs of individuals and the workplace. Access to electronic information systems, including the Internet, enables students to explore thousands of libraries, databases, and other resources. The School Division expects that staff will blend thoughtful use of electronic research throughout the curriculum and will provide guidance and instruction in its use. To protect students, and in compliance with the Children's Internet Protection Act (CIPA), software has been installed on the division's computers having Internet access to filter or block internet access to child pornography as set out in Va. Code 18.2-374.1:1 and obscenity as defined in Va. Code section 18.2-372, and other obscene/illegal material as well as material that the school division deems to be harmful to juveniles.

Permission for Use

Students utilizing Salem City Schools' electronic information services must first have the permission of and be supervised by a school staff member. Students utilizing school-provided computers are responsible for appropriate behavior on-line just as they are in a classroom or other area of the school. The school conduct code and same general rules for behavior and communications apply. Access is a privilege, not a right. Each student is responsible for his or her own behavior on the network, and may lose that privilege for improper conduct on-line. A student who incidentally connects to an inappropriate site must immediately disconnect from the site. If a student sees another user accessing an inappropriate site, he or she should notify a teacher or supervisor immediately.

Purpose

The purpose of school-provided access to electronic research is to enhance and broaden instructional programs. The use of the media must be in support of and consistent with the educational objectives of Salem City Schools.

Integrity of Computer Files

Users of on-line resources should not expect that files stored on school-based computers will always be private. Electronic messages and files stored on school-based computers will be treated in the same manner as school lockers. Administrators and faculty may review these files and messages to maintain system integrity and insure that users are acting responsibly.

File: IIBEA
(Page 2 of 2)

Unacceptable Use

While this list is not intended to be exclusive, the following acts illustrate the kinds of offenses encompassed here. The following uses of school-provided on-line computer services are **not** permitted:

a) accessing computer networks for the purpose of corrupting computer system integrity;
b) accessing computer networks for which the user has not been authorized;
c) accessing, uploading, downloading, or distributing pornographic, obscene or sexually explicit material;
d) transmitting obscene, abusive, sexually explicit or threatening language;
e) violating any local, state, or federal statute;
f) forging, intercepting, or interfering with electronic mail messages;
g) downloading large files which tax the ability of the divisions servers to operate efficiently;
h) intentional destruction of any part of the computer system through creating or downloading computer viruses, or by any other means;
i) vandalizing, damaging, or disabling files, software, hardware of another individual or organization;
j) accessing another individual's material, information, or files without permission;
k) violating copyright or otherwise using the intellectual property of another individual or organization without permission; and
l) using on-line computer services for commercial purposes for personal gain.

Penalty for Inappropriate Use

Any violation of Salem City Schools Acceptable Use Policy may result in loss of school-provided access to electronic information. Additional disciplinary action may be determined at the building level in keeping with the Standards of Student Conduct regarding inappropriate language and behavior.

User Incurred Expenses/Charges

Salem City Schools will not be responsible for any expenses, bills, or charges incurred by students who use the Internet.

Adopted: July 1, 1999
Revised: August 14, 2001
Second Revision: July 13, 2004

Legal Refs.: Code of Virginia, 1950, as amended §§ 22.1-778 and 22.1-70.2

File: IIBEA-F
(Student)

COMPUTER AND INTERNET ACCESS STUDENT PERMISSION FORM

SALEM CITY SCHOOLS

Student's Agreement

I have read the Acceptable Use Policy for Internet Access and Computer Use. I understand fully and agree to abide by the principles and guidelines it contains. In addition, I have read and agree to refrain from those actions which are considered unacceptable uses of Internet resources.

_____ _____
Printed Name Teacher Name

_____ _____
Student's Signature Date

Parent's Agreement

As the parent or guardian of this student, I have read the Acceptable Use Policy for Internet Access and Computer Use. I understand that Internet access is designed for educational purposes. I also recognize that employees of the school or school system may not be able to restrict access to all controversial materials on the Internet. I will not hold them responsible for materials my son or daughter acquires as a result of the use of the Internet from school facilities.

_____ _____
Signature of Parent or Guardian Date

File: IIBEA
(Page 1 of 2)

STAFF USE OF ELECTRONIC INFORMATION SERVICES AND COMPUTER NETWORKS

The Salem City School Division offers its teachers access to the Internet and on-line computing. The Internet is an electronic highway connecting hundreds of thousands of computers and millions of individual users all over the world. Electronic information research skills are now fundamental needs of individuals and the workplace. Access to electronic information systems, including the Internet, enables students and staff to explore thousands of libraries, databases, and other resources. The School Division expects that staff will blend thoughtful use of electronic research throughout the curriculum and will provide students with guidance and instruction in its use. To protect students, and in compliance with the Children's Internet Protection Act (CIPA), software has been installed on the division's computers having Internet access to filter or block internet access to child pornography as set out in Va. Code 18.2-473.1:1 and obscenity as defined in Va. Code section 18.2-372, and other obscene/illegal material as well as material that the school division deems to be harmful to juveniles.

Purpose

The purpose of school-provided access to electronic research is to enhance and broaden instructional programs. The use of the media must be in support of and consistent with the educational objectives of Salem City Schools. While it is recognized that employees of the school division may not be able to restrict access to all controversial materials on the Internet, it is implicit in an educator's role that students must be protected from exposure to inappropriate Internet sites. Some of the types of inappropriate use of computers and the Internet are enumerated below.

Integrity of Computer Files

Users on on-line resources should not expect that files stored on school-based computers will always be private. Electronic messages and files stored on school-based computers may be reviewed to maintain system integrity and to insure that users are acting responsibly.

Unacceptable Use

While this list is not intended to be exclusive, the following acts illustrate the kinds of offenses encompassed here. The following uses of school-provided on-line computer services are **not** permitted:

a) accessing computer networks for the purpose of corrupting computer system integrity;
b) accessing computer networks for which the user has not been authorized;
c) accessing, uploading, downloading, or distributing pornographic, obscene or sexually explicit material;
d) transmitting obscene, abusive, sexually explicit or threatening language;
e) violating any local, state, or federal statute;
f) forging, intercepting, or interfering with electronic mail messages;

File : IIBEA
(Page 2 of 2)

g) downloading large files which tax the ability of the divisions servers to operate efficiently;
h) intentional destruction of any part of the computer system through creating or downloading computer viruses, or by any other means;
i) vandalizing, damaging, or disabling files, software, hardware of another individual or organization;
j) accessing another individual's material, information, or files without permission;
k) violating copyright or otherwise using the intellectual property of another individual or organization without permission; and
l) using on-line computer services for commercial purposes for personal gain.

Personal Use of the School Division Electronic Information Services and Network

The Salem School Board provides computer-based electronic information services for the sole purpose of carrying out the mission of the School Division. Personal use of electronic equipment and network services may be equated to personal use of the Division's telephone system. While permissible, personal use of such equipment should be held to an absolute minimum.

Penalty for Inappropriate Use

Any violation of Salem City Schools Acceptable Use Policy may result in loss of school-provided access to electronic information. Additional action may be determined by the Superintendent and School Board.

User incurred Expenses/Charges

Salem City Schools will not be responsible for any expenses, bills, or charges incurred by staff who use the Internet.

Adopted: July 1, 1999
Revised: August 14, 2001
Second Revision: July 13, 2004

File: IIBEA-F
(Staff)

COMPUTER AND INTERNET ACCESS STAFF AGREEMENT FORM

SALEM CITY SCHOOLS

Agreement

I have read the Acceptable Use Policy for Internet Access and Computer Use. I understand fully and agree to abide by the principles and guidelines it contains. In addition, I have read and agree to refrain from those actions which are considered unacceptable uses of Internet resources.

_____
Printed Name

_____ _____
Signature Date

Appendix IV

TECHNOLOGY STANDARDS FOR INSTRUCTIONAL PERSONNEL IN SALEM SCHOOLS

It is imperative that teachers in the Salem City School Division be knowledgeable and proficient in the effective use of technology in carrying out their duties. Toward that end, seventeen skill areas have been identified as priorities in the Division. Those areas, listed below, shall be used as the basis for staff development activities and for an administrator's evaluation of a teacher's level of technology skill.

Staff development opportunities shall be provided through credit-bearing college courses sponsored and funded by the Division, through in-house training in each school, and through Division-wide offerings by outside experts and consultants.

Instructional Skills

1. Plan and implement lessons and strategies that integrate technology in instruction.
2. Develop lessons that require the use of technology for problem solving and critical thinking.
3. Demonstrate a basic knowledge of the appropriate operation system.
4. Develop lessons that require students to use technology.
5. Use software to assist with classroom administration tasks.
6. Use peripheral devices with computer systems, such as printer, scanner, LCD projector, and digital camera.
7. Use the computer to communication with students, parents and staff.
8. Make use of a variety of electronic media and databases to expand opportunities for student/personal research.
9. Evaluate software for quality of information and usefulness to classroom instruction.
10. Be able to communicate knowledge about ethical and legal issues such as copyright and network etiquette regarding the use of technology and information.
11. Integrate databases, graphics and spreadsheet into word processing documents.
12. Use publishing software, such as PageMaker, to create printed documents.
13. Identify new changes and applications of old technologies and development of new technologies.
14. Identify, select and integrate video and digital images in varied formats for creating multi-media presentations, publications and other products.
15. Demonstrate an understanding of the concepts of video-conferencing and other distance learning applications.
16. Use appropriate citation for electronic resources in gathering information.
17. Analyze and solve simple hardware and software problems.

Appendix V

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

Kindergarten

Skills Identified	Level of Implementation
The students will:	
_____ Open and close a program.	**Introduce**
_____ Use the keyboard and mouse to interact with the computer.	
_____ Interact with a story/program shown on the computer monitor.	
_____ Use correct fingering for enter key and space bar.	
Identify:	
_____ peripheral devices (e.g. printer, scanner, laserdisc player, barcode reader)	
_____ cursor keys	
_____ numeric keys	
_____ enter key	
_____ space bar	
_____ diskette	
_____ compact disk	
Identify basic parts of a computer:	
_____ monitor	
_____ keyboard	
_____ mouse	
_____ disk drive	
_____ CD-ROM drive	
_____ CPU	

Level of implementation: Introduce/Build/Maintain

Introduce: The skill is treated as new to the students at this grade level.
Build: The skill has been previously introduced; depth of understanding and rigor are components of a skill being "built".
Maintain: The skill is considered acquired by the students; practice is necessary to continue speed, accuracy, and maintain understanding.

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

First Grade

	Skills Identified	Level of Implementation
The students will:		
_____	Create simple graphics.	**Introduce**
_____	Identify and use the appropriate keys to return to the main menu or change programs.	
_____	Print a document.	
_____	Use CD-ROM programs.	
_____	Use basic technology vocabulary: cursor, software, memory, disk drive, hard drive, and CD-ROM.	
_____	Demonstrate good posture and hand placement at the keyboard.	
_____	Use the keyboard and mouse to interact with the computer.	**Build**
_____	Open and close a program.	
	Identify basic parts of a computer and explain their uses:	
_____	monitor	
_____	keyboard	
_____	mouse	
_____	disk drive	
_____	CD-ROM drive	
_____	CPU	
_____	Demonstrate improved familiarity in locating letters and numbers on the keyboard.	**Maintain**

Level of implementation: Introduce/Build/Maintain

Introduce: The skill is treated as new to the students at this grade level.
Build: The skill has been previously introduced; depth of understanding and rigor are components of a skill being "built".
Maintain: The skill is considered acquired by the students; practice is necessary to continue speed, accuracy, and maintain understanding.

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

Second Grade

	Skills Identified	Level of Implementation
The students will:		
_____	Edit a document; e.g. correct a misspelling, add and delete words and spaces.	**Introduce**
_____	Use the calculator on the computer.	
_____	Create a published product.	
_____	Use local network to access information.	
	Use pull-down menus:	
_____	file	
_____	save	
_____	print	
_____	exit/quit	
_____	Use basic technology vocabulary, e.g. desktop, cursor, software, memory, disk drive, hard drive, and CD-ROM.	**Build**
_____	Create simple graphics.	
_____	Demonstrate good posture and hand placement at the keyboard.	
_____	Use CD-ROM programs.	**Maintain**
_____	Demonstrate improved familiarity in locating letters and numbers on the keyboard.	

Level of implementation: Introduce/Build/Maintain

Introduce: The skill is treated as new to the students at this grade level.
Build: The skill has been previously introduced; depth of understanding and rigor are components of a skill being "built".
Maintain: The skill is considered acquired by the students; practice is necessary to continue speed, accuracy, and maintain understanding.

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

Third Grade

Skills Identified	Level of Implementation
The students will:	
_____ Demonstrate beginning keyboarding skills.	**Introduce**
_____ Retrieve information from electronic references; e.g. encyclopedias, almanacs, indexes, catalogs, videodiscs, and telecommunications.	
_____ Choose the appropriate application software, i.e., wordprocessor, spreadsheet, or database.	
_____ Use local network to access information.	**Build**
_____ Edit a word-processed piece of writing.	
_____ Select and use appropriate software icons at the computer.	
_____ Use technology vocabulary, e.g. cursor, software, memory, disk drive, hard drive, and CD-ROM.	
_____ Use peripheral devices, such as printer and videodisc player.	
Use pull-down menus:	
_____ file	
_____ save	
_____ print	
_____ exit/quit	
_____ Create a published product.	
_____ Use CD -ROM programs.	**Maintain**

Level of implementation: Introduce/Build/Maintain

Introduce: The skill is treated as new to the students at this grade level.
Build: The skill has been previously introduced; depth of understanding and rigor are components of a skill being "built".
Maintain: The skill is considered acquired by the students; practice is necessary to continue speed, accuracy, and maintain understanding.

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

Fourth Grade

	Skills Identified	Level of Implementation
The students will:		
_____	Discuss the advantages and disadvantages of various computer processing, storage, retrieval, and transmission techniques (e-mail, fax).	**Introduce**
_____	Use simple databases and spreadsheets to manage information and create reports.	
_____	Use wide-area network to access information and modem delivered services.	
_____	Integrate graphics into a word-processed document.	
_____	Demonstrate a basic understanding of binary logic.	
_____	Create a word-processed piece of writing and print it.	**Build**
_____	Save and retrieve a document as they work on an on-going product and print it.	
_____	Use peripheral devices.	
_____	Use the keyboard of a computer effectively, with increased speed and accuracy.	
_____	Use electronic references such as encyclopedias, atlases, etc.	
_____	Edit a document.	**Maintain**
_____	Use local area network to access information.	

Level of implementation: Introduce/Build/Maintain

Introduce: The skill is treated as new to the students at this grade level.
Build: The skill has been previously introduced; depth of understanding and rigor are components of a skill being "built".
Maintain: The skill is considered acquired by the students; practice is necessary to continue speed, accuracy, and maintain understanding.

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

Fifth Grade

	Skills Identified	Level of Implementation
The students will:		
_____	Create simple databases and spreadsheets to manage information and create reports.	**Introduce**
_____	Apply technologies to strategies for problem solving and critical thinking.	
_____	Integrate graphics into word-processed documents.	**Build**
_____	Demonstrate a basic understanding of binary logic.	
_____	Use the keyboard effectively, with increased speed and accuracy.	**Maintain**
_____	Use peripheral devices.	
_____	Use technology vocabulary, e.g. cursor, software, memory, disk drive, hard drive, and CD-ROM.	
_____	Describe advantages and disadvantages of various computer processing, storage, retrieval, and transmission techniques.	
_____	Research using a computer.	
_____	Save and retrieve a 1 - 2 page document as they work on an on-going product and print it.	
_____	Use local and wide-area networks to access information.	

Level of implementation: Introduce/Build/Maintain

Introduce: The skill is treated as new to the students at this grade level.
Build: The skill has been previously introduced; depth of understanding and rigor are components of a skill being "built".
Maintain: The skill is considered acquired by the students; practice is necessary to continue speed, accuracy, and maintain understanding.

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

Sixth Grade Teams

Skills Identified	Level of Implementation
The student will:	
_____ Set up formulas, analyze data and create graphs or charts using a spreadsheet.	**Introduce**
_____ Define fields, sort and create reports using a database.	
_____ Use laserdiscs with a computer in an interactive mode.	
_____ Compose and edit a multi-page document at the keyboard, using processing skills and the writing process.	**Maintain**
_____ Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select relevant information.	
_____ Use databases to perform research.	
_____ Develop technology skills and vocabulary that includes bits, bytes, and binary logic.	

Sixth Grade Health

Skills Identified	Level of Implementation
The student will:	
_____ Use search strategies to retrieve electronic information.	**Maintain**

Sixth Grade Art

Skills Identified	Level of Implementation
The student will:	
_____ Use a graphics program.	**Maintain**

Sixth Grade Exploratory: Technology Skills

Skills Identified	Level of Implementation
The student will :	
_____ Use advanced publishing software and scanners to produce page layouts.	**Introduce**
_____ Develop hypermedia "home page" documents that can be accessed by worldwide networks.	
_____ Develop skills using the keyboard of a computer.	**Maintain**
_____ Use basic technology skills and vocabulary.	

The sixth grade teams may decide which teachers and disciplines are best suited to each skill.

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

Seventh Grade Teams

Skills Identified	Level of Implementation
The student will:	
_____ Integrate databases, graphics, and spreadsheets into word-processed documents.	**Introduce**
_____ Set up formulas, analyze data and create graphs or charts using a spreadsheet.	**Build**
_____ Define fields, sort and create reports using a database.	
_____ Interact with laserdisc using a computer.	
_____ Compose and edit a multi-page document at the keyboard, using processing skills and the writing process.	**Maintain**
_____ Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select relevant information.	
_____ Use databases to perform research.	
_____ Develop technology skills and vocabulary that includes bits, bytes, and binary logic.	

Seventh Grade Health

Skills Identified	Level of Implementation
The student will:	
_____ Use search strategies to retrieve electronic information.	**Maintain**
_____ Use local and worldwide network communication systems.	

Seventh Grade Art

Skills Identified	Level of Implementation
The student will:	
_____ Use a graphics program.	**Maintain**

Seventh Grade Foreign Language/Music

Skills Identified	Level of Implementation
The student will:	
_____ Use local and wide-area networks and modem delivered services to access and retrieve information from electronic databases.	**Maintain**

Seventh Grade Exploratory/Elective

Skills Identified	Level of Implementation
Photojournalism - The student will:	
_____ Use advanced publishing software to produce layouts.	**Build**
Computer Applications - The student will:	
_____ Continue to develop keyboarding and word processing skills.	**Maintain**
Technology Exploration - The student will:	
_____ Continue to develop technology skills and vocabulary.	**Maintain**

The seventh grade teams may decide which teachers and disciplines are best suited to each skill.

Salem City Schools Computer/Technology Skills for Grades K – 8

Teacher's Name _____

Eighth Grade Teachers: (All skill levels at the eighth grade will be **Maintain**)

The student can:

	Skills Identified	Class
_____	Compose and edit a multi-page document at the keyboard using word processing skills and the writing process.	**Language Arts**
_____	Develop hypermedia homepage documents that can be accessed by worldwide networks.	
_____	Use advanced publishing software and scanners to produce page layouts.	
_____	Communicate with spreadsheets by entering data and setting up formulas, analyzing data, and creating graphs or charts to visually represent data.	**Math**
_____	Use vocabulary and technology skills that includes bits, bytes and binary logic.	
_____	Integrate databases, graphics, and spreadsheets into word-processed documents.	**Science**
_____	Use laserdiscs with a computer in an interactive mode.	
_____	Communicate with databases by defining fields and entering data, sorting, and producing reports in various forms.	**Social Studies**
_____	Use databases to perform research.	
_____	Use electronic encyclopedias, almanacs, indexes, and catalogs to retrieve and select relevant information.	
_____	Use local and worldwide network communication systems.	**Health**
_____	Use search strategies to retrieve electronic information.	
_____	Create a multi-page document at the keyboard, using word processing skills and the writing process steps.	**Foreign Language**
_____	Use search strategies to retrieve electronic information.	**Music**
_____	Use graphic programs.	**Art**
_____	Use advanced publishing software to produce layouts.	**Photojournalism**
_____	Use basic and advanced technology skills.	**Technology Systems I and II**
_____	Continue to develop keyboarding and word processing skills.	**Personal Keyboarding**
_____	Develop increased knowledge of the operation and application of computers.	**Introduction to Computers**