

# The Radford City Schools Technology Plan 2006-2011

Prepared for the Radford City School Board  
and the  
Virginia Department of Education  
by the  
Technology Committees  
of  
McHarg Elementary School  
Belle Heth Elementary School  
Dalton Intermediate School  
Radford High School

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## Introduction

Radford City Schools is recognized for leadership in the innovative application of technology to enhance student learning, strengthen teacher effectiveness, and improve daily administrative operations. The focus of this technology plan will be to expand and refine current technological accomplishments. The technology plan focuses on integrating technologies into the curriculum to improve learning and pursue the latest and most effective methods of meeting the needs of students, teachers, and staff.

Technology is the inevitable companion of the 21st Century citizen. Steps taken now to provide equitable access, connectivity, and ample training and support for technology in our schools will ensure that Radford City School's students and staff are proficient in using all forms of technology and that they possess the skills to interact through telecommunications.

Preparing students and staff to meet the challenges of the 21<sup>st</sup> Century demands a high level of literacy, effective communications, a broad range of understanding, and an ability to work productively in groups. It is the goal of Radford City Schools to develop a community of lifelong learners.

The central fact of this decade is the inevitability of change and the need to guide this change in directions that support diversity of learning styles and maximize learning and productivity. Technology will serve as a catalyst to support our students so that they will thrive in the 21<sup>st</sup> century.

This Technology Plan will address three areas for each school in the division. The first area will center on the hardware, LAN and WAN capabilities and infrastructure needed to provide the most up to date experiences and opportunities for the students, teachers and staff. The second area will focus on the software programs that will be used to support and enhance the academic needs of the students. The third area will focus on the training and professional development activities provided to employees to ensure that teachers utilize technology as a tool for enhancing the instructional program.

## Development of the Technology Plan

The Radford City Schools Technology Plan was developed by the Division's Technology Committee. This committee consisted of four teachers, four parents, four ITRTs, the Division's Network Engineer, the Division's Information System Specialist, and the Director of Technology. Throughout the process members of the committee communicated with the stakeholders for whom they represent and solicited their input on specific areas.

Once the plan was completed it was submitted to the school board for approval. After the approval of the plan each committee member disseminated the information to all stakeholders within the division.

## The Philosophy

Radford City Schools is committed to preparing every student to meet the requirements of the Virginia Standards of Learning (SOLs) and to have students leave school with the knowledge and skills necessary to demonstrate success and proficiency in the use of technology. We believe that it is our responsibility to provide the equipment, the infrastructure, the technology programs, the opportunities, and the instruction to assist students in meeting these goals.

In order to provide the students the appropriate instruction and technology experiences, every teacher and employee must be knowledgeable in the use of technology. Various opportunities for teachers to obtain training in these skills will be provided through inservice from the Instructional Technology Resource Teacher (ITRT), Technology Information Systems Specialist, Network Engineer, Computer Maintenance Technician (see Appendix A for job descriptions), community members, universities and colleges, etc. with the ultimate goal of providing knowledge that will enable Radford City Schools to use technology to enhance the learning opportunities of its students.

## The Vision

Radford City Schools has a long tradition of excellence in providing quality instruction to its students and preparing them to lead productive adult lives in society. Society itself is constantly changing which constitutes the need for change in the schools. Educators can no longer ignore the fact that technology is a major influence in the lives of today's students and that it will be an even greater influence in their adult lives. In recognizing these concepts, we must acknowledge that the business community, the parents, the school district, the teachers and the students are all stakeholders in the educational process.

Radford City Schools sees technology as another tool for improving access to knowledge by students, teachers, administrators, and other workers in our system. All students will have sustained educational experiences with many aspects of technology. These varied forms of technology must be viewed, not as ends in themselves, but as tools to enable lifelong and empowered learning. Teachers will have the facilities and equipment for teaching more effectively with technology and the opportunities for learning to use those facilities so that technology learning will become an integral part of their students' daily experiences.

Radford City Schools is committed to graduating students who possess the skills needed to succeed in an increasingly complex information society. The ability to process and manipulate, and communicate information has already become the single most important determiner of economic success for individuals. In this new information age, the ability to gather and distribute information through electronic communication is vital. Students who attend Radford City Schools will be comfortable and proficient in using educational technology in all its forms as information resources and will possess the skills to interact with individuals or organizations and agencies through computer telecommunications. Radford City Schools is dedicated to continually evaluating the direction of this plan to ensure that it meets the mission of technology integration.

Radford City School's Vision is to provide a level of technology integration where:

- all students are able to access learning resources from various locations
- all students have opportunities to utilize technology in a student-centered classroom where the power of technology expands their horizons
- students and teachers exchange assignments through a variety of media sources (paper, email, video, CD, flash drive).
- parents are able to exchange email with teachers and retrieve timely information about their child's records through an on-line database.
- parents are able to leave voice mail messages with a teacher that automatically transfers into the teacher's email box.
- parents are able to access information regarding school programs and schedule on-line or through an automated voice mail system.
- teachers possess the skills and confidence to utilize technology appropriately in enhancing the learning experience.
- administrators are able to access student records and other data to aid in decision making.
- classrooms have access to the Internet and resources of the school's media center
- media programming can be shared simultaneously among multiple locations.
- distance learning classes are available to students.

## The Mission

The mission of Radford City Schools is to ensure the use of appropriate technologies to enhance the delivery of curricula, meet the academic needs of the student population, and promote optimal growth and learning. In a rapidly changing environment, students are required to access and process more information and to gain technological skills. We must provide an environment in which all students and employees can acquire the knowledge, the skills, the values, and the interest to become productive users of technology for communication, research, and work. Radford City Schools will provide an educational system in which students will reach their fullest potential and function as active participants in the educational setting, the community, and as contributing members of society in which they become productive and self-supporting adults. Students will value learning, be critical thinkers, be technologically literate and make wise mental, physical, academic and ethical decisions. They will demonstrate a respect for themselves and others and will work well together to solve problems and make decisions.

## Executive Summary

The Radford City Schools Technology Plan is designed to provide a framework for the appropriate utilization of technology throughout the entire division. The technology planning committee collaborated to produce the objectives and strategies to ensure that the goals presented below are met. The goals of the Radford City Schools Technology Plan are in alignment with the general objectives of the Six-Year Educational Technology Plan for Virginia.

The Radford City Schools Technology Plan is based on five goals encompassing the areas of connectivity and infrastructure, professional development, integration of technology into teaching and learning, educational and administrative applications, and evaluation and planning. Each of these goals includes objectives, strategies, an assigned area of responsibility, target completion date, and an evaluation component.

### **1. Connectivity, Infrastructure, and Safety**

The technology department will provide an infrastructure, including hardware and network connectivity, which support the needs of all students and staff.

Radford City Schools uses a variety of infrastructure options that provides users the ability to transfer voice, video, and data information. Additionally, the division takes steps for ensuring student safety. The division has a detailed Acceptable Use Policy (Appendix H) and provides internet safety instruction to all students and teachers in the division. This goal is intended to address the ability to interconnect the division's hardware, software, and users and ensure internet safety.

### **2. Professional Development**

The use of technology and technological resources will be implemented by knowledgeable and supportive personnel.

All personnel will receive information regarding the benefits of using technology and will be provided with instruction that assists them in determining the appropriate uses of technology. Professional development will focus on using technology to enhance learning opportunities and evaluating current pedagogical practices.

### **3. Integration of Technology into Teaching and Learning**

The instructional staff of Radford City Schools will increase student learning through appropriate integration of technology into classroom instruction. Teachers will utilize technology as a regular component of their instructional program. Beginning with the 2006-07 school year 98% of the teachers in Radford City will be provided with a tablet PC and access to a digital projector to assist them in meeting Radford City Goal of using "technology to teach." Teachers participating in this initiative will receive continual professional development throughout the next five years.

An effective teaching and learning environment includes technology tools to develop life-long learning skills (problem-solving, critical thinking, decision-making, research, communication skills and life skills) for all students.

#### **4. Educational and Administrative Applications**

The management processes of the division will maximize the use and efficiency of available and emerging technologies.

Technology has the potential to positively impact all aspects of the divisional operations from grade reports to the routing of buses. The available and emerging technologies must be continually evaluated and explored.

#### **5. Evaluation and Planning**

The technology department will anticipate, plan, and direct the use of technology and technological resources.

Planning requires anticipating the emergence of unidentified future technologies. Each new initiative must be evaluated for suitability to current needs and the ability to upgrade, expand or adapt to future needs.

The Appendices of the plan include details on the division's local area network, technology capital improvement projects, the structure of a technology leadership committee, the Virginia Department of Education policies, and the Department of Education Standards of Learning for Technology.

## Connectivity and Infrastructure

Radford City Schools uses a both a fiber and wireless system to allow users to transfer voice, video, and data packets throughout the network. The goals of this section are designed to address the issues surrounding the Local Area Network (LAN) ability to interconnect hardware, software, and individuals.

**Goal 1: Provide an infrastructure, including hardware and network connectivity, which supports the needs of all students, teachers, administrators, and staff.**

**Objective 1.1** Incorporate technologies into the renovation of existing buildings as well as in the construction of new buildings

### Strategies

- 1.1a. A multi-media system will be added to all existing classrooms and any new classrooms that are constructed in the division. Systems include SMARTboards, digital projectors, and sound capabilities.

**Responsibility:** Director of Technology, Technology Staff, Principal, Superintendent  
**Target Date:** 2011  
**Resources:** The estimated cost of a completely installed Smart Board system is \$2,650.00. There are 87 classrooms that currently do not have a SmartBoard.  
**Total cost:** \$230,550.00

- 1.1b. Ensure that staff for the Office of Technology actively participates in planning for renovation and new construction.

**Responsibility:** Director of Technology/Clerk of the Works  
**Target Date:** Ongoing  
**Resources:** Staff time  
**Total cost:** In-kind

- 1.1c. Provide and maintain a physical infrastructure for all instructional administrative and support areas.

**Responsibility:** Director of Technology  
**Target Date:** 2011  
**Resources:** School budget to include operations expenditure for technology  
**Total cost:** \$100,000

**Objective 1.2:** Review existing technology annually for appropriateness and efficiency.

**Strategies:**

- 1.2a. Maintain, update and review an annual inventory of existing hardware.

**Responsibility:** Director of Technology, Network Engineer,  
Technology Advisory Committee

**Target Date:** June 1, annually

**Resources:** Staff time

**Total Cost:** Current salaries

- 1.2b. Evaluate and upgrade LAN/WAN technologies to support emerging technologies including wireless network options. (Appendix A)

**Responsibility:** Director of Technology, Network Engineer

**Target Date:** 2006-2011 (Ongoing)

**Resources:** Inclusion of an operating budget for technology in the annual school division budget

**Cost:** \$20,000/annually

- 1.2c. Review the operating systems and standard software that is currently on each workstation (i.e. Windows, Novel, Microsoft Office, GroupWise, etc). (Appendix B)

**Responsibility:** Director of Technology, Network Engineer,  
Technology Information System Specialist, Technology Advisory Committee, ITRTs

**Target Date:** June 1, annually

**Resources:** Staff

**Cost:** Current salaries

**Objective 1.3:** Evaluate and replace hardware and software annually (Appendix B).

**Strategies:**

- 1.3a. Develop a hardware replacement schedule.

**Responsibility:** Director of Technology, Network Engineer

**Target Date:** April 30, of each year

**Resources:** Staff time

**Cost:** Current salaries

- 1.3b. Prepare a budget for the replacement of equipment identified in the review.

**Responsibility:** Director of Technology  
**Target Date:** February 15, annually  
**Resources:** Annual approval of the operating budget  
**Cost:** Current Salaries

- 1.3c. Develop a software replacement and upgrade schedule.

**Responsibility:** Director of Technology, Network Engineer, Technology Information System Specialist, Instructional Technology Resource Teachers  
**Target Date:** April 30, of each year  
**Resources:** Staff time  
**Cost:** Current salaries

- 1.3d. Prepare a budget for the replacement of software identified in the review.

**Responsibility:** Director of Technology  
**Target Date:** February 15, annually  
**Resources:** Staff time; Annual approval of the operating budget for the Office of Technology  
**Cost:** Current salaries

**Objective 1.4:** Provide appropriate technical support and service to maintain hardware and software resources in an efficient manner.

**Strategies:**

- 1.4a. Review staffing needs annually, including Office of Technology staff, building level Instructional Technology Resource Teachers, and make necessary recommendations to the School Board. (Appendix C)

**Responsibility:** Director of Technology, Principals  
**Target Date:** October 30, annually  
**Resources:** Staff time  
**Cost:** Current salaries

- 1.4b. Review the procedures for initiating repairs at the school level. Explore the implementation of a software package for managing repair requests (i.e. “helpdesk,” “perfect tracker” “call tracking”) Make changes necessary to improve efficiency.

**Responsibility:** Director of Technology, Network Engineer  
**Target Date:** August 1, 2007  
**Resources:** Staff time  
**Cost:** Current salaries

- 1.4c. Follow protocols for the acquisition and support of hardware and software. (See Appendix D)

**Responsibility:** Director of Technology, Network Engineer, Technology Information System Specialist, ITRT’s  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Current salaries

- 1.4d. Review hardware and software maintenance contracts annually.

**Responsibility:** Director of Technology, Information Systems Specialist  
**Target Date:** March 30, annually  
**Resources:** Staff time  
**Cost:** Current Salaries

- 1.4e. Establish protocols to ensure that a backup system is in place for all critical systems and data.

**Responsibility:** Network Engineer  
**Target Date:** 2006  
**Resources:** Automated  
**Cost:** Annual maintenance

## Professional Development

All staff must be educated regarding the benefits and appropriate uses of technology. Professional development will focus on how technology can enhance learning opportunities and the changes in pedagogical practices that must occur to make this possible.

**GOAL 2:** The use of technology and technological resources will be implemented by informed, supportive and supported personnel.

**Objective 2.1:** Explore and implement programs of professional development annually to increase appropriate integration of technology into classroom instruction.

### Strategies:

- 2.1a. Develop, train and maintain a Technology Committee to create, practice and share technology integrated lessons, assess and provide training (i.e. workshops, in-services, etc.) targeting professional development needs of staff.

**Responsibility:** Director of Technology, Technology  
Technology Information System Specialist  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Title II Part D, Blue Ridge West  
Consortium, School Division Budget  
**Cost:** \$5,000 per year

- 2.1b. Develop the leadership technical skills of the Instructional Technology Resource Teachers (ITRT), the Technology Information System Specialist, and the Library Media Specialists through membership in the Technology Committee.

**Responsibility:** Director of Technology  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Salary

- 2.1c. Develop technical skills and provide resources for Instructional Technology Resource Teachers (ITRTs) through participation in the ITRT Training Seminars.

**Responsibility:** Director of Technology  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Virginia Department of Education  
**Cost:** \$5,000

**Objective 2.2:** Implement training programs to increase appropriate use of technology in all aspects of the school environment.

**Strategies**

- 2.2a. Follow a protocol that assigns the responsibility for planning and providing training for users of instructional and non-instructional software and hardware to the Instructional Technology Resource Teachers (ITRTs).

**Responsibility:** Instructional Technology Resource Teachers  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Training expenses, if needed, to be included with any purchase  
**Cost:** \$2,500 per year

- 2.2b. Plan and implement multi-level workshops to develop and increase the skills of all staff members in effectively utilizing the division-wide communications and productivity software.

**Responsibility:** Director of Technology, ITRTs  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Annual approval of the operating budget  
**Cost:** \$2000 per year

- 2.2c. Create a training facility with appropriate hardware and software to be utilized as a training resource center.

**Responsibility:** Director of Technology  
**Target Date:** September 2007  
**Required:** Annual budget  
**Cost:** \$15,000

**Objective 2.3:** Ensure that every building has an Instructional Technology Resource Teachers with adequate time, skills and resources to troubleshoot and assist staff members in utilizing building technologies.

**Strategies:**

- 2.3a. Develop a plan for evaluating and selecting appropriate Instructional Technology training sessions.

**Responsibility:** Director of Technology, Technology Information System Specialist  
**Target Date:** 2006-2011  
**Resources:** Staff time  
**Cost:** \$5,000

- 2.3b. Provide an ongoing program of appropriate training in SASI and other divisional software programs for the Technology Information System Specialist.

**Responsibility:** Director of Technology  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** \$3,000 annually

- 2.3c. Maintain a record of training expenses provided to the Technology Information System Specialist.

**Responsibility:** Director of Technology through the Technology Information System Specialist  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Salary

**Objective 2.4:** Ensure that all instructional personnel meet the *Technology Standards for Instructional Personnel (TSIP)* (Appendix E) as established by the Virginia Department of Education and Radford City Schools.

**Strategies:**

- 2.4a. Monitor completion of the *Technology Standards for Instructional Personnel* requirements.

**Responsibility:** Director of Technology, ITRTs  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Salary

- 2.4b. Continue to provide training for new instructional personnel who need to meet the TSIP.

**Responsibility:** ITRTs  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Salary

## INTEGRATION OF TECHNOLOGY INTO TEACHING AND LEARNING

An effective teaching and learning environment includes technology tools to develop life-long learning skills (problem-solving, critical thinking, decision-making, research, communication skills and life skills) for all students.

### **GOAL 3: Increase student learning through appropriate integration of technology into classroom instruction.**

**Objective 3.1:** Emphasize technological resources and accessibility to these resources as curriculum is developed and current curriculum maps are revised.

#### **Strategies:**

- 3.1a. Implement appropriate emerging technologies (i.e. desktop workstations, handheld devices, graphing calculators, etc.) as a component of each curriculum revision.

**Responsibility:** Directors of Elementary and Secondary Education  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Instructional funds

- 3.1b. Integrate Computer/Technology Standards of Learning across all curriculum areas. (Appendix F)

**Responsibility:** Director of Elementary and Secondary Education  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Instructional funds

- 3.1c. Ensure accessibility to appropriate technology resources for all students and staff in all school settings.

**Responsibility:** Director of Technology  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Annual approval of operating budget  
**Cost:** \$20,000 annually

**Objective 3.2:** Use the available technology positions to assist in the integration of technology into the curriculum.

**Strategies:**

- 3.2a. Develop job responsibilities for current personnel who serve as resources in emphasizing support for instructional technology at all grade levels. These personnel include ITRTs, Technology Information System Specialists, and Library Media Specialists. The responsibilities will clarify the unique roles of each position and their relationship as a team in the support of instructional technology.

**Responsibility:** Director of Technology  
**Target Date:** January 2006  
**Resources:** Staff time  
**Cost:** Salary

- 3.2b. Develop procedures for teachers to request technology assistance.

**Responsibility:** Technology Advisory Committee  
**Target Date:** April 2007  
**Resources:** Staff time  
**Cost:** Salaries

**Objective 3.3:** Utilize division web-based technologies to provide expanded opportunities for staff to interact for professional growth and training.

**Strategies:**

- 3.3a. Create technology-based opportunities where staff can share ideas, post resources and references, and pose questions on various topics (i.e. on-line forums, interactive web pages, etc.).

**Responsibility:** ITRTs and Technology Information System Specialist  
**Target Date:** September 2006 (Ongoing)  
**Resources:** Staff time  
**Cost:** Salaries

**Objective 3.4:** Effectively integrate library-based resources into the curriculum.

**Strategies:**

- 3.4a. Expand the capabilities for remote access to online information resources from all learning areas in the division and from home.

**Responsibility:** Network Engineer  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Annual approval of the RCPS Software budget.  
**Cost:** \$15,000

- 3.4b. Provide Internet accessibility to all school library information.

**Responsibility:** Library Media Specialists, Network Engineer  
**Target Date:** June 2010  
**Resources:** Staff time  
**Cost:** Salaries

- 3.4c. Explore the option of making student and teacher work folders accessible to users at home as well as school.

**Responsibility:** Network Engineer  
**Target Date:** August 2007  
**Resources:** Approval of the RCPS software budget  
**Cost :** \$15,000

**Objective 3.5** Increase the level of technology use among all teachers and principals. Technology will be used as an integrated part of daily classroom instruction.

**Strategies:**

- 3.5a. Provide appropriate professional development opportunities for administrators related to the role technology plays in student learning and improving student achievement.

**Responsibility:** School Administrator, Directors of Elementary and Secondary Education, Director of Technology  
**Target Date:** 2006-2011  
**Resources:** Staff Time  
**Cost:** Salaries

- 3.5b. Provide appropriate professional development opportunities for teachers related to the role technology plays in student learning and improving student achievement.

**Responsibility:** Directors of Elementary and Secondary Education,  
Director of Technology  
**Target Date:** 2003-2006  
**Resources:** Title II Part A and D  
**Cost:** \$5,000

- 3.5c. Provide appropriate hardware (and software and technical support needed for the effective integration of technology in daily classroom instruction.

**Responsibility:** ITRTs, Technology Information System  
Specialist  
**Target Date:** 2006-2011  
**Resources:** Staff Time  
**Cost:** Salaries

- 3.5d. Include the integration of technology as a component in the classroom observation and teacher evaluation process.

**Responsibility:** Directors of Elementary and Secondary  
Education, School Administrators  
**Target Date:** August 2006  
**Resources:** Staff Time  
**Cost:** Salaries

- 3.5e Provide a Tablet PC and digital camera to every teacher in the division.

**Responsibility:** Director of Technology, Division  
Superintendent, School Board  
**Target Date:** August 2006  
**Resources:** Staff Time  
**Cost:** \$70,000 per year for five years

- 3.5f Radford City Schools will partner with Gateway Computer to provide on going professional development that focuses on using technology as a tool for improving student achievement.

**Responsibility:** Director of Technology, ITRTs  
**Target Date:** August 2006  
**Resources:** Staff Time  
**Cost:** see 3.5e

## EDUCATIONAL AND ADMINISTRATIVE APPLICATIONS

Technology has the potential to positively impact all aspects of division operations from efficient grade reporting to routing buses. The available and emerging technologies must be continually evaluated and explored for maximum benefit.

**GOAL 4: Maximize use and efficiency of available and emerging technologies in the management processes of the division.**

**Objective 4.1:** Review current technologies for efficiency of services.

**Strategies:**

4.1a. Support the implementation and expansion of the computer generated grading software at all levels.

<b>Responsibility:</b>	Technology Technology Information System Specialist, Network Engineer
<b>Target Date:</b>	2006-2011 (Ongoing)
<b>Resources:</b>	Staff time
<b>Cost:</b>	Upgrades

4.1b. Expand the use of the RDA system to:

- Implement an applicant tracking system.
- Explore expanding the use of the RDA Accounting System for Accounts Payable to the school building level.
- Expand the use of the RDA System to managing the employee information systems (i.e. attendance) to minimize paper records and improve accuracy and accessibility by the appropriate personnel.

<b>Responsibility:</b>	Director of Technology, Accounting Department
<b>Target Date:</b>	2006-2011 (Ongoing)
<b>Resources:</b>	Staff time; Cost of required enhancements (to be included in the annual budget request)
<b>Cost:</b>	\$5000 annually

- 4.1c. Explore options for providing web-based services (i.e. library catalogs, on-line course registration, web-based learning) for students and staff.

**Responsibility:** Director of Technology, Network Engineer  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Salaries

- 4.1d. Investigate options for electronic inventory and distribution of textbooks.

**Responsibility:** Director of Technology, Network Engineer  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Salaries

- 4.1e. Explore options for school-level electronic billing (i.e. cafeteria, yearbooks, P.E. uniforms, lost/damaged textbooks, and library materials, etc.).

**Responsibility:** School Bookkeepers  
**Target Date:** July 2008  
**Resources:** Staff time  
**Cost:** Salaries

- 4.1f. Increase the use of e-mail and expand division web sites as staff, student and parent communication tools.

**Responsibility:** Director of Technology, Principals, Teachers, ITRT's  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time  
**Cost:** Salaries

- 4.1g. Implement appropriate emerging technologies (i.e. electronic notebooks, SMARTboards, personal digital assistants, hand-held computers, etc.).

**Responsibility:** Director of Technology,  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Technology Budget  
**Cost:** \$30,000 annually

**Objective 4.2:** Implement a program for electronic records management.

**Strategies:**

4.2a. Establish division standards and procedures in accordance with state guidelines.

**Responsibility:** SASI, Technology Information  
System Specialist  
**Target Date:** Current  
**Resources:** Annual maintenance fee, Staff time  
**Cost:** \$8,000 annually, salaries

4.2b. Include state and division standards as well as staffing considerations in making budget recommendations.

**Responsibility:** Director of Technology  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Staff time; Approval of operating  
budget  
**Cost:** Appendix G

## EVALUATION AND PLANNING

*Planning requires anticipating the emergence of unidentified future technologies. Each new initiative must be evaluated for suitability to current needs and the ability to upgrade, expand or adapt to future needs*

### **GOAL 5: Anticipate, plan, and direct the use of technology and technological resources.**

**Objective 5.1:** Leaders who have an involvement with technology (division and school level) must be knowledgeable of emerging technologies, trends and issues.

#### **Strategies:**

- 5.1a Attend conferences to study and learn about emerging technologies and collaborate with other professionals on issues dealing with the advancement of technology at the division level.

**Responsibility:** Director of Technology, members of the technology department, building administrators  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Annual approval of the operating budget for the Technology Department  
**Cost:** \$5000.00

- 5.1b. Encourage involvement and participation in professional organizations.

**Responsibility:** Director of Technology  
**Target Date:** 2006-2011 (Ongoing)  
**Resources:** Annual approval of the operating budget for the Technology Department  
**Cost:** \$500.00

**Objective 5.2:** Evaluate all hardware and software purchases for alignment with instructional objectives or administrative/support functions and funding sources and continuously assess current technology for effectiveness and to plan future needs.

**Strategies:**

- 5.2a. Conduct annual technology surveys to provide data for determining needs and making budget recommendations.

**Responsibility:** Director of Technology  
**Target Date:** May 1, annually  
**Resources:** Staff time  
**Cost:** Salaries

- 5.2b. Establish a Technology Advisory Committee to provide recommendations to the division regarding hardware and software purchases.

**Responsibility:** Director of Technology  
**Target Date:** June, 2006  
**Resources:** Staff time  
**Cost:** Salaries

- 5.2c. Establish a divisional education hardware and software review committee to evaluate and approve all special education hardware and software prior to purchase.

**Responsibility:** Director of Elementary and Secondary Education  
**Target Date:** September, 2006  
**Resources:** Staff time  
**Cost:** Salaries

- 5.2d. Evaluate and update division hardware specifications regularly in order to make hardware purchases, including peripheral equipment, based on these specifications.

**Responsibility:** Director of Technology, Network Engineer, Technology Advisory Committee  
**Target Date:** June 1, annually  
**Resources:** Staff time  
**Cost:** Salaries

**Objective 5.3:** Make security an integral part of all planning and evaluation activities.

**Strategies:**

- 5.3a. Establish guidelines for the regular evaluation of security for hardware, software and networks.

**Responsibility:** Network Engineer, Computer Technician  
**Target Date:** July 1, Annually  
**Resources:** Staff time  
**Cost:** Salaries

- 5.3b. Audit current systems for security issues.

**Responsibility:** Director of Technology, Network Engineer  
**Target Date:** July 1, Annually  
**Resources:** Staff time  
**Cost:** Salaries

- 5.3c. Develop an annual Technology Budget that includes funding for hardware repairs, software license renewals and upgrades, professional development, and hardware replacement (Appendix G).

**Responsibility:** Director of Technology, Technology Advisory Committee  
**Target Date:** January 31, Annually  
**Resources:** Staff time  
**Cost:** Salaries

## Appendix A

# Infrastructure

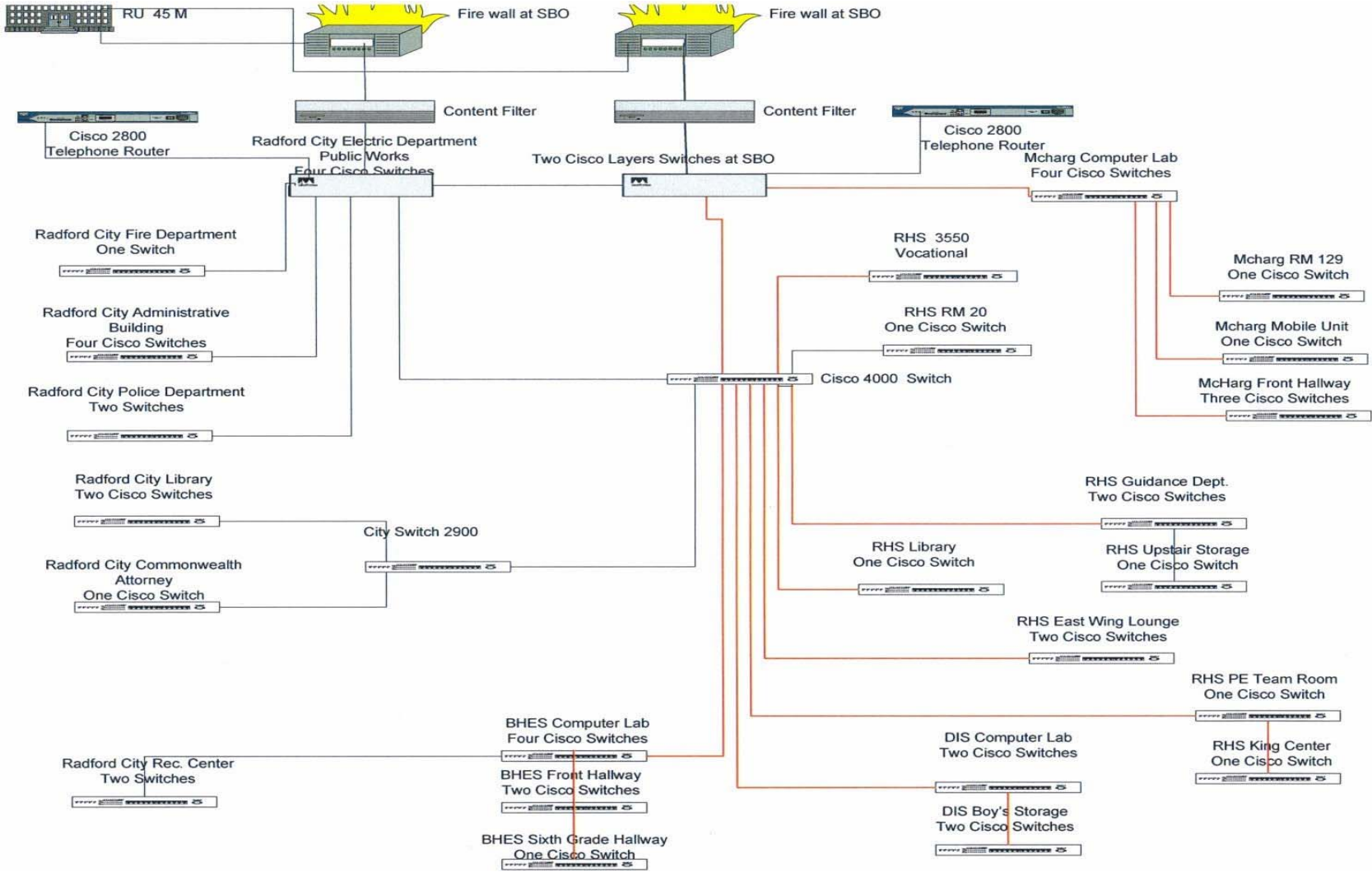
All facilities in the school division must be maintained and upgraded to accommodate changes in network infrastructure, computer hardware, and program software if students and staff are to benefit from the use of these tools. In the past, all facilities have been retrofitted to provide appropriate network access, communication and data outlets, security and storage and climate control.

Two major components of the division's infrastructure are the Media Management Systems and the Wide Area Network (WAN) which connects each of the schools in the division.

### Media Management System

1. Media Management Systems to facilitate video, instructional television and voice communication to and from each classroom are planned for each school.
2. Updates and expansions include:
  - a. IP telephones placed in every classroom
  - b. Voice communication between classroom and office in every building
  - c. Voice mail and email integration
  - d. Video capabilities installed in each classroom using computer network system

Media Management System	School/Building	Services Included
Completed April 2003	Radford High School Central Office/Office of Technology	Installation of powered switches area Installation of content filter Installation of anti-virus software Installation of IP Telephone System Incorporation of United Streaming
Completed June 2003	Dalton Intermediate School	Installation of powered switches area Installation of content filter Installation of anti-virus software Installation of IP Telephone System Incorporation of United Streaming
Completed September 2003	Belle Heth Elementary School McHarg Elementary School	Installation of powered switches area Installation of content filter Installation of anti-virus software Installation of IP Telephone System Incorporation of United Streaming
Updates and Expansion of Media Management System	School/Building	
Projected update 2008	Radford High School Central Office/Office of Technology	
Projected update 2009	Dalton Intermediate School	
Projected update 2010	Belle Heth Elementary School McHarg Elementary School	



## Appendix B Hardware Replacement Schedule

School	Computer Lab	Library	Teachers	Office
Radford High School	Date: Fall 2006 Number: 30	Date: Fall 2007 Number: 10	Date: Fall 2006 Number: 50	Date: Fall 2009 Number: 7
Dalton Intermediate School	Date: Fall 2006 Number: 30	Date: Fall 2007 Number: N/A	Date: Fall 2006 Number: 17	Date: Fall 2009 Number: 3
Belle Heth Elementary School	Date: Fall 2008 Number: 27	Date: Fall 2009 Number: 8	Date: Fall 2008 Number: 50	Date: Fall 2009 Number: 3
McHarg Elementary School	Date: Fall 2010 Number: 30	Date: Fall 2011 Number: 10	Date: Fall 2010 Number: 50	Date: Fall 2009 Number: 7
School Board Office	N/A	N/A	N/A	Date: Summer 2009 Number: 16

## Software Replacement Schedule

School	Windows	Office Suite	Email	Accounting
Radford High School	Date: Fall 2006 Number: 30	Date: Fall 2007 Number: 10	Date: Fall 2006 Number: 50	Date: Fall 2009 Number: 7
Dalton Intermediate School	Date: Fall 2006 Number: 30	Date: Fall 2007 Number: N/A	Date: Fall 2006 Number: 17	Date: Fall 2009 Number: 3
Belle Heth Elementary School	Date: Fall 2008 Number: 27	Date: Fall 2009 Number: 8	Date: Fall 2008 Number: 50	Date: Fall 2009 Number: 3
McHarg Elementary School	Date: Fall 2010 Number: 30	Date: Fall 2011 Number: 10	Date: Fall 2010 Number: 50	Date: Fall 2009 Number: 7
School Board Office	N/A	N/A	N/A	Date: Summer 2009 Number: 16

## **Appendix C Job Descriptions NETWORK ENGINEER**

### **General Job Description**

Reports to and works directly with the Director of Technology

1. Installs, maintains and repairs computers and other related equipment and systems.
2. Inspects, troubleshoots, assembles, installs, adjusts, and tests various types and brands of computers and associated peripherals used in classrooms, offices, libraries, and other locations within the school division.
3. Installs surge suppressors, and other related equipment needed for the proper operation of computers.
4. Diagnoses defects and repairs, or replaces defective parts.
5. Performs preventive and corrective maintenance.
6. Performs software and hardware installations.
7. Installs, repairs, and maintains all types of computers and related equipment.
8. Services, repairs and replaces hard drives and disk drives.
9. Repairs multi-layered printed circuit boards and surface mount devices.
10. Prepares repair and replacement schedules for other technicians.
11. Maintains the network system, including the Internet and email servers.
12. Performs related tasks as required.
13. Performs other duties as directed by the Radford City School's Director of Instructional Technology.

*All work performance and other conditions shall be governed by the Radford City Public Schools Policy Manual.*

### **Skills Necessary for Performance**

1. General knowledge of the operation, uses and capabilities of computer equipment.
2. Thorough knowledge of methods and techniques used to maintain and repair computer equipment.
3. Knowledge of computer networking and the equipment required for maintaining a stable network environment.
4. Knowledge of IP telephony and other IP technologies.
5. Ability to understand written and oral instructions.
6. Ability to read and understand maintenance manuals and to work from sketches, drawings and diagrams.
7. Ability to establish and maintain an effective working relationship with associates.
8. Skill in the use of computer equipment.
9. Ability to work independently without direct supervision.
10. Holds a valid Virginia Driver's License; meets local standards for a record check.
11. Ability to communicate professionally with other employees.
12. Ability to make suggestions and comments in a non-threatening manner.

### **Education and Experience**

Any combination of education and experience equivalent to a Cisco CCNE and at least three years experience in the maintenance and repair of electronic computer equipment and systems.

## COMPUTER MAINTENANCE TECHNICIAN

### General Job Description

Reports to and works directly with the Director of Technology and the Network Engineer.

1. Installs, maintains and repairs computers and other related equipment and systems.
2. Maintains all telephone, audio, and video systems for the division.
3. Inspects, troubleshoots, assembles, installs, adjusts, and tests various types and brands of computers and associated peripherals used in classrooms, offices, libraries, and other locations within the school division.
4. Installs surge suppressors, and other related equipment needed for the proper operation of computers.
5. Diagnoses defects and troubleshoots to the component level, repairs, or replaces defective parts.
6. Performs preventive and corrective maintenance.
7. Performs software and hardware installations.
8. Installs, repairs, and maintains all types of computers and related equipment.
9. Services, repairs and replaces hard drives and disk drives.
10. Repairs multi-layered printed circuit boards and surface mount devices.
11. Maintains the Local Area Network (Lan) system, including the Internet and email servers.
12. Performs related tasks as required.
13. Performs other duties as directed by the Radford City School's Director of Instructional Technology and Network Engineer.

*All work performance and other conditions shall be governed by the Radford City Pubic Schools Policy Manual*

### Skills Necessary for Performance

1. General knowledge of the operation, uses and capabilities of computer equipment.
2. Thorough knowledge of methods and techniques used to maintain and repair computer equipment.
3. Knowledge of computer networking and the equipment required for maintaining a stable network environment.
4. Knowledge of audio and video peripherals including IP Telephones, video transmissions, and cable TV.
5. Ability to understand written and oral instructions.
6. Ability to read and understand maintenance manuals and to work from sketches, drawings and diagrams.
7. Ability to establish and maintain an effective working relationship with associates.
8. Skill in the use of computer equipment.
9. Ability to work independently without direct supervision.
10. Hold a valid Virginia Driver's License; meet local standards for a record check.

### Education and Experience

Any combination of education and experience equivalent to an A.A. in electronics and at least three years experience in the maintenance and repair of electronic computer equipment and systems.

## **TECHNOLOGY INFORMATION SYSTEMS SPECIALIST**

### **General Job Description**

Reports to and works directly with the Director of Technology

1. Coordinates and provides in-services and training programs for administrators, teachers, and support personnel on various technology productivity tools and software packages.
2. Provides support to secretaries, administrators and other personnel on the use of various technology software packages.
3. Establishes and maintains standardization among all division sites on various administrative software packages.
4. Works directly with bookkeepers on the use of the software accounting packages.
5. Works directly with school librarians on the use of the Follett software package.
6. Works directly with all school support personnel on the use and maintenance of the SASIxp, and Integrate Pro software packages for student data management.
7. Works with division personnel on the use of all components of the Office XP Suite.
8. Works directly with the Instructional Technology Resource Teachers to provide assistance in implementing the various instructional software programs designed to enhance student learning.
9. Assists in compiling data used to complete state reports.
10. Serves as Project Manager for EIMS.
11. Assists in programming IP Telephones.
12. Generates data, as needed for the Superintendent and other Central Office Staff from the SASIxp district package.
13. Attends technology in-services and information events and participates in the reading of technology publications in order to remain current and up to date on the latest developments in technology.
14. Creates and maintains the school division's web site and ensures that each school's web site is linked to the division's site.
15. Determines the technology professional development needs for the division and works with the Director of Technology to schedule and provide workshops.
16. Performs other duties as directed by the Director of Instructional Technology.

*All work performance and other conditions shall be governed by the Radford City Pubic Schools Policy Manual.*

### **Skills Necessary for Performance**

1. Possesses the skills necessary to work collaboratively with individuals or groups of individuals in the school division and in the community.
2. Possesses the ability to work with individuals with varying degrees of computer knowledge demonstrates the ability to train them in these areas.
3. Has a detailed understanding of miscellaneous technology equipment and software used to support various administrative tasks.
4. Demonstrates good organizational and communication skills.

### **Education and Experience**

Any combination of education and experience equivalent to graduation from an accredited college or university with a degree in computer science or related field.

## **INSTRUCTIONAL TECHNOLOGY RESOURCE TEACHER (ITRT)**

### **General Job Description**

Reports to and works directly with the Director of Technology and the school Principal.

1. Collaborates with Radford City Schools' teachers to plan and design lessons that utilizes technology as a teaching tool to help students meet the achievement levels established by Virginia Standards of Learning tests in English, math, science, and social studies.
2. Coordinates and provide in-services, training programs and workshops for administrators, teachers, and support personnel on the use of various technology tools.
3. Provides support to school staff, secretaries, administrators and other support personnel on the use of various technology software packages.
4. Installs programs on computers in the school lab and classrooms as needed. .
5. Creates and updates the school's home page and creates appropriate links to the division's home page.
6. Assists the instructional staff in technology curriculum design and provides in-service.
7. Maintain a clean and orderly environment in the lab and on other computers as needed.
8. Assists in the evaluation and selection of computer programs for the schools
9. Works directly with the Technology Technology Information System Specialist to provide assistance in implementing the various instructional software programs.
10. Assists the staff in the use various computer hardware including SMARTboards, digital projectors, Personal Digital Assistants (PDA), printers, digital cameras, and tablet PCs.
11. Troubleshoots technology problems within the building and reports needed repairs.
12. Attends technology in-services and information events and participates in the reading of technology publications in order to remain current on the latest developments in technology.
13. Performs other duties as directed by the Radford City School's Director of Technology.

*All work performance and other conditions shall be governed by the Radford City Pubic Schools Policy Manual.*

### **Skills Necessary for Performance**

1. Possesses the skills necessary to work collaboratively with individuals or groups of individuals in the school division and in the community.
2. Possesses the ability to work with individuals with varying degrees of computer knowledge and demonstrates the ability to train them in these areas.
3. Has a detailed understanding of miscellaneous technology equipment and software used to support various administrative tasks.
4. Demonstrates good organizational and communication skills.
5. Has the knowledge and understanding of the various computer platforms.
6. Has the ability to work well with students and to provide them with the knowledge and expertise necessary to perform and meet the expectations of the classroom teacher.
7. Demonstrates a willingness to maintain a clean and orderly classroom environment.

### **Education and Experience**

Bachelor of Science degree and a teacher license and certification with at least three years experience in planning and designing lessons that incorporate the use of technology. Should also possess experience in working with children of all ages.

**Appendix D**  
**Procedures for the Acquisition and Support of**  
**Hardware and Software**

(Support includes installing, maintaining, troubleshooting, repair and training.)

Source of Equipment	Protocol for Support	Comments
<b>Donation</b>	Supported only if it meets current division standards	
<b>Fundraising Programs</b>	Supported only if it meets current division standards and is approved by the Director of Technology	This includes book fairs, school fundraisers, and PTA/PTO, and PSA fundraisers
<b>School Funds</b>	Supported only if it meets current division standards and is approved by the Director of Technology	
<b>Grants</b>	Supported only if it meets current division standards and is approved by the Director of Technology	This includes federal program grants as well as competitive grants
<b>Department of Technology Funds</b>	Fully Supported	
<b>Administrative Funds</b>	Fully Supported	This would include all departments such as Maintenance, Transportation, Instruction, Technology, etc.

**Appendix E**  
**Technology Standards for Instructional  
Personnel**

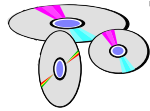
TO: Instructional staff

FROM: B. Keith Rowland, Ed.D.

RE: Technology Standards for Instructional Personnel Certification

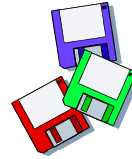
8 VAC 20-25-10 requires that all instruction personnel shall be certified in the Technology Standards for Instructional Personnel by the year 2002. With this in mind, Radford City Schools has developed a procedure for instructional personnel to attain this certification through actual skill demonstration and portfolio development. As you read through the following documents, you will quickly see that many of the technological competencies to be demonstrated are competencies that you may already be able to perform at a proficient level. The requirements are for school divisions to certify instructional personnel through documentation (portfolios). The attached forms will assist you through this process of certification in these technology standards. Keep all documentation in a portfolio for your records. Once completed, you should submit this information to your school's ITRT. Each school's ITRT will work with principals to verify each technology standard has been completed. Your school's ITRT can assist you in this process and answer most questions that you may have pertaining to this requirement.

By implementing this process at this time, it is believed that all instructional personnel employed by Radford City Schools, will be able to become certified in these technology standards. We will continue to provide, training opportunities to instructional staff to assist them in attaining certification.



**RADFORD CITY SCHOOLS  
TECHNOLOGY STANDARDS**

**TEACHER COPY**



Teacher Name: \_\_\_\_\_ School: \_\_\_\_\_

I certify that I will complete all Standards and activities independently.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date of Submission

Standards may be completed in any order. As each standard is completed, have your principal sign off on it. After the completion of all Standards (1 through 8), the administrator will submit a letter to the Director of Technology indicating your completion of the State Technology Standards for Instructional Personnel requirements.

**Standard 1: Operate a computer system and utilize software.**

Accepted Administrator's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Further work needed: \_\_\_\_\_

**Standard 2: Apply knowledge of terms associated with educational computing and technology.**

Accepted Administrator's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Further work needed: \_\_\_\_\_

**Standard 3: Apply productivity tools for professional use.**

Accepted Administrator's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Further work needed: \_\_\_\_\_

**Standard 4: Use electronic technologies to access and exchange information.**

Accepted Administrator's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Further work needed: \_\_\_\_\_

**Standard 5: Identify, locate, evaluate, and use appropriate instructional technology-based resources (hardware and software) to support SOLs and other instructional objectives.**

Accepted Administrator's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Further work needed: \_\_\_\_\_

**Standard 6: Use educational technologies for data collection, information management, problem solving, decision making, communications, and presentations within the curriculum.**

Accepted Administrator's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Further work needed: \_\_\_\_\_

**Standard 7: Plan and implement lessons and strategies that integrate technology to meet the diverse needs of learners in a variety of educational settings.**

Accepted Administrator's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Further work needed: \_\_\_\_\_

**Standard 8: Demonstrate knowledge of ethical and legal issues relating to the use of technology.**

Accepted Administrator's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Further work needed: \_\_\_\_\_

**RADFORD CITY SCHOOLS  
TECHNOLOGY PORTFOLIO REQUIREMENTS**

The following criteria have been chosen to determine your proficiency for each given Standard. Label each piece of work with your name, the number of the Standard it supports and the letter of the activity. **Keep the original work for your files.** As you complete or demonstrate each activity for the ITRT, have him or her initial beside the letter of that activity. After all requirements for a particular Standard are met, have the ITRT sign and date the appropriate blank. Submit this form to your administrator for final signature and approval upon completion of each Standard.

The same activity may be submitted for more than one Standard if it combines elements of more than one lettered activity. For example, one document may incorporate word processing and a spreadsheet and thereby satisfy two items. Likewise, if your web page contains several distinct sections (i.e., student work as well as resource information for parents and/or students) it could satisfy requirements for both 3h and 6h. However, ONE printout of an image from a digital camera will not suffice for both 3j and 5b. Final judgment will be made by the technology specialist or administrator reviewing the submissions.

**STANDARD 1: Operate a computer system and utilize software. (Three of the following)**

- \_\_\_ a. Demonstrate your ability to save multiple files to a disk and to a folder you have created on the hard drive of your computer.
- \_\_\_ b. Demonstrate your ability to move saved files from drive to drive, folder to folder, etc.
- \_\_\_ c. Submit the printouts of two original documents created with different software (i.e., MS Word, PowerPoint, Paint, etc.).
- \_\_\_ d. Submit a list of at least three trouble-shooting operations you have accomplished and their dates (ex: unjammed classroom printer 2/12/06, connected cable to classroom computer 3/14/06, used system tools to defragment the hard drive 4/1/06).
- \_\_\_ e. Printout information from a CD-ROM encyclopedia and directly from the Internet.
- \_\_\_ f. Demonstrate your ability to set up a computer system (i.e., hook-up cables, attach mouse, change print cartridge, etc.).
- \_\_\_ g. Copy and paste text and a graphic from the Internet to another program.

ITRT's signature: \_\_\_\_\_ Date completed: \_\_\_\_\_

**STANDARD 2: Apply knowledge of terms associated with educational computing and technology. (Item a. is required, then select one more from the remaining choices.)**

- \_\_\_ a. Successfully complete (score of 80% or better) "Technology Vocabulary Quiz" (available from a technology specialist)
- \_\_\_ b. Printout an activity or lesson you have developed to teach technology vocabulary to your students.
- \_\_\_ c. Printout a multimedia presentation you have developed to teach technology vocabulary to your students.

ITRT's signature: \_\_\_\_\_ Date completed: \_\_\_\_\_

**STANDARD 3: Apply productivity tools for professional use. (Four of the following)**

- \_\_\_ a. Submit two professional word-processed documents, at least one of which contains a graphic relating to the subject or text. Detail should be given to proper use of formatting techniques, grammar, punctuation, and style (use an easy to read font, format, etc.). Suggestions: newsletter, list of directions, note to parents, unit outline, course syllabus or class worksheet.
- \_\_\_ b. Submit a computer-generated grade report on a student or class group.
- \_\_\_ c. Create and print a database of student or other professional information. This document should include at least four fields.
- \_\_\_ d. Create and print a spreadsheet used to record class or other professional information. This document should include at least 20 cells and one mathematical function.
- \_\_\_ e. Submit a printout of e-mail correspondence (your message and a reply) with a colleague about a professional or curricular issue.
- \_\_\_ f. Create and print a computer-generated crossword, word-search, or other puzzle game.
- \_\_\_ g. Submit a printout of web-based information you retrieved for professional use (ex: lesson plan or professional article that relates to your subject matter).
- \_\_\_ h. Submit a printout of a Web page and the URL created by you as a resource for your students and/or their parents. (ex: links to sources of information about curriculum topics, schedule of assignments or news of class accomplishments).
- \_\_\_ i. Provide evidence that you have used technology to produce a bulletin board, learning center or learning games. Evidence may vary but could include a photograph, sketch or copy of the item.
- \_\_\_ j. Submit a printout of a digital camera image that you produced for an instructional or professional activity.

ITRT's signature: \_\_\_\_\_ Date completed: \_\_\_\_\_

**STANDARD 4: Use electronic technologies to access and exchange information. (Three of the following)**

- \_\_\_ a. Submit a lesson plan and the dates used that incorporates students' active use of the World Wide Web.
- \_\_\_ b. Submit printout of web-based information you retrieved for instructional use.
- \_\_\_ c. Provide evidence of your class's participation in a Web project (the specific evidence will vary - submit something that shows what the project was and that your class participated).
- \_\_\_ d. Submit a printout of e-mail correspondence between you (or a member of your class) and an adult "expert" at a remote site about a topic of curricular concern or interest.
- \_\_\_ e. Submit a printout of an electronically generated list of sources available in your school or an area library (i.e., RHS library, Radford City Library, RU's Teacher Resource Center, etc.) on a topic of interest to you or your class.
- \_\_\_ f. Submit a write-up of the search strategy you used to access specific information from the Web or an information database (i.e., Encyclopedia Americana, Encarta, etc.) Include key words, path, and final URL or information gained.
- \_\_\_ g. Submit a printout of a thread or an e-mail conversation from a professional listserv you have joined (indicate name of listserv and subscription address).

ITRT's signature: \_\_\_\_\_ Date completed: \_\_\_\_\_

**STANDARD 5: Identify, locate, evaluate, and use appropriate instructional technology-based resources (hardware and software) to support SOLs and other instructional objectives. (Item a. is required, then select three more from the remaining choices.)**

- \_\_\_ a. Turn in at least three reviews of web sites that relate to your grade level or discipline. Include URL, title of site, a brief summary of site, a critique of its effectiveness, grade level appropriateness and applicability to curriculum or professional use.
- \_\_\_ b. Submit a printout of a digital camera image that you produced for a curriculum related activity.
- \_\_\_ c. Submit a document that contains a scanned image that you produced for a curriculum related activity.
- \_\_\_ d. Submit a lesson plan that incorporates laser disk usage by teacher or student in an instructional setting. Include date lesson was taught or student made presentation.
- \_\_\_ e. Submit a lesson plan that incorporates video usage by teacher or student in an instructional setting. Include date lesson was taught or student made presentation.
- \_\_\_ f. Submit a lesson plan that incorporates use of a presentation device (not an overhead projector) by teacher or student. Include date lesson was taught or student made presentation.
- \_\_\_ g. Turn in three instructional software program reviews. Include title, publisher, cost, a brief summary of each program, a critique of its effectiveness and your determination of grade level appropriateness and applicability to curriculum.
- \_\_\_ h. Provide evidence that you have used a camcorder in an instructional setting. Include class, date, lesson plan, and objectives.

ITRT's signature: \_\_\_\_\_ Date completed: \_\_\_\_\_

**STANDARD 6: Use educational technologies for data collection, information management, problem solving, decision making, communications, and presentations within the curriculum. (Four of the following)**

- \_\_\_ a. Submit a student-generated word-processed document from a class assignment. Include course, date and objective.
- \_\_\_ b. Submit a student-generated database from a class assignment. Include course, date and objective.
- \_\_\_ c. Submit a student-generated spreadsheet from a class assignment. Include course, date and objective.
- \_\_\_ d. Submit a copy of a student-generated desktop publication (ex: newspaper, flyer, advertisement, etc.) from a class or extracurricular activity. Include information about the purpose of the activity.
- \_\_\_ e. Submit a printout of e-mail correspondence between a member of your class (with teacher assistance if necessary) and an adult "expert" at a remote site.
- \_\_\_ f. Submit a printout of a multimedia presentation (i.e., PowerPoint, etc.) generated by you for a professional or instructional purpose.
- \_\_\_ g. Submit a printout of a multimedia presentation (i.e., PowerPoint, etc.) generated by one of your students. Include lesson plan and objective(s).
- \_\_\_ h. Provide the URL and a printout of your class's Web page.
- \_\_\_ i. Submit the class, date, lesson plan and objectives that used a presentation device (i.e., large screen monitor, data projection system, etc.). This may not include an overhead projector.

ITRT's signature: \_\_\_\_\_ Date completed: \_\_\_\_\_

**STANDARD 7: Plan and implement lessons and strategies that integrate technology to meet the diverse needs of learners in a variety of educational settings. (Item a. is required, then select one more from the remaining choices)**

- \_\_\_ a. Have your principal sign below indicating that they have observed you teaching a lesson that successfully included student use of technology.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

- \_\_\_ b. Submit a printout of a bibliography of resources on a specific curriculum topic that you created using your school's electronic information databases and/or electronic catalog.
- \_\_\_ c. Submit a lesson plan and date taught that utilized the one computer in your classroom and large screen monitor.
- \_\_\_ d. Submit lesson plan and date taught that utilizes the computer lab.

IIRT's signature: \_\_\_\_\_ Date completed: \_\_\_\_\_

**STANDARD 8: Demonstrate knowledge of ethical and legal issues relating to the use of technology. (One of the following)**

- \_\_\_ a. Submit a printout of a Web site which deals with ethical and legal issues (please include URL) and discuss the issues with your students.

IIRT's signature: \_\_\_\_\_ Date completed: \_\_\_\_\_

## TECHNOLOGY TERMINOLOGY

**bit** –The basic unit of information for computer processing. Represented by 0 or 1, on or off

**browser** - A program that lets you locate, view, and retrieve information on the World Wide Web using a graphical user interface. Microsoft Internet Explorer is an example.

**byte** - The amount of memory space needed to store one number, letter or symbol in a computer. Comprised of 8 bits.

**CD-ROM** – Compact Disc – Read Only Memory - A tightly focused laser beam reads the presence or absence of tiny pits embedded on the surface of this disc.

**click** - A regular left-click of the mouse.

**clipboard** – A temporary memory used by programs to hold text and images that are copied from applications.

**close** – The far right button of the three control buttons located in the upper right hand corner of the program/document. Looks like an X. Closes the program or document you are viewing.

**compatible** - When two devices are able to work together.

**CPU** – Central Processing Unit - The brain of the computer that processes instructions and manages the flow of information throughout a computer system. -the computer case and its boards, chips and processors

**database software** - Programs that allow related information to be stored in an organized and useful manner and give the capacity to search, sort, revise and analyze information quickly and efficiently. An electronic filing cabinet. Example: Microsoft Access

**desktop** – The initial screen you see after Windows starts. Your workspace on the monitor.

**double-click** – Click the left mouse button two times quickly.

**font** – A set of type characters of a particular typeface design and size. Usually, each typeface (Times Roman, Helvetica, Arial, etc.) is made available in four variations: normal weight, bold, italic and bold italic.

**GB** – Gigabyte – A measurement of memory. 1 billion bytes, 1 million KB or 1 thousand MB

**hardware** - The electronic components, boards and equipment that make up your computer. The items you can touch.

**HTML** – Hyper Text Markup Language - A coding language used to create documents for the Web.

**hyperlink** - Underlined or otherwise emphasized text or images that, when clicked with the mouse, displays another document. For example, on the Internet your cursor turns into a hand and when clicked takes you to a new page.

**icon** – A symbol or picture that represents or is a shortcut to a program.

**input devices** – Any device that allows you to enter information into the computer (be it text or image), for example: keyboard, mouse, digital camera, scanner, or microphone.

**Internet** - A world-wide network of computers through which people can exchange data and communications.

**KB** – Kilobyte – A measurement of memory. Approximately 1,000 bytes: 1 byte = 1 letter, 1 KB = 1 typed page.

**LAN** – Local Area Network - The linkage of computers and/or peripherals confined to a limited area that may consist of a room, building, or campus.

**maximize** – The middle button of the three control buttons located in the upper right hand corner of the program/document. Looks like one square.-enlarges a window to fill the screen.

**MB** – Megabyte – A measurement of memory. About 1 million bytes or 1,000 kilobytes: 1 byte = 1 letter, 1 MB = 700 page book.

**minimize** – The first of the three control buttons located in the upper right hand corner of the program/document. It looks like a minus sign and keeps the program/document open but moves it out of the way of other programs or documents.

**modem** - This device converts digital information into analog information and back again, allowing a computer to communicate over a telephone line.

**multimedia** - Any combination of video, sound, text, animation, and graphic images in a computer-based environment.

**network** - A group of computers connected to each other that share resources such as software, data and communications.

**operating system** - The overall controlling software for your system. For example: Windows 2000, XP, OS/2 or UNIX

**peripheral** - A device attached to and controlled by a computer such as a printer, digital camera or scanner.

**platform** - The type of computer you have, for example: an IBM compatible or a Macintosh.

**RAM** – Random Access Memory - The temporary memory of the computer on which information is stored while the computer is on.

**restore** – The middle of the three control buttons located in the upper right hand corner of the program/document. Looks like overlapping squares. Restores window to its original size.

**right-click** – Click the right mouse button once. This opens a menu where special operations can be chosen by highlighting then using a regular click.

**ROM** – Read Only Memory - The “permanent” memory of the computer that is not effected by turning the machine on or off and stores information such as the operating system software and the programs.

**select** - To highlight a part or all of a document or image so the program can identify the material on which you want to perform the next operation.

**software** - Individual programs and applications that tell the computer what to do.

**spreadsheet software** - Programs that have efficient and accurate methods of working with numbers. They are used to perform a wide variety of calculations and offer charting and graphing capabilities. Example: Excel

**taskbar** – The gray strip at the bottom of the screen/monitor – contains the start button on the left and the system tray on the right.

**virus** - A program that carries out unwanted or damaging operations on your computer. It can be picked up from downloading programs from the Internet or may be spread by shared disks.

**WAN** – Wide Area Network - A data communications linkage designed to connect computers over moderate to long distances (building to building, city to city, etc.).

**WWW** – World Wide Web - A network of computers that allows access to information sites all over the world using a standard, common interface to organize and search for information.

## Appendix F

### Computer Technology Standards of Learning For Virginia's Public Schools June 22, 2005 Board of Education Commonwealth of Virginia

#### Computer/Technology Standards of Learning

##### Introduction

##### ***Technology Literate***

*...to possess technology skills that support learning, personal productivity, decision making, and daily life.*

*Six-Year Educational Technology Plan  
for Virginia, 2003-2009*

The Computer/Technology Standards of Learning identify and define the progressive development of essential knowledge and skills necessary for students to access, evaluate, use and create information using technology. They provide a framework for technology literacy and demonstrate a progression from physical manipulation skills for the use of technology, to intellectual skills necessary for information use, to skills needed for working responsibly and productively within groups. Computer/technology proficiency is not an end in itself, but lays the foundation for continuous learning. The focus is on learning to use technology rather than learning about technology.

To become technologically proficient, the student must develop the skills through integrated activities in all content areas K-12, rather than through one specific course. These skills should be introduced and refined collaboratively by all K-12 teachers as an integral part of the learning process. Teachers can use these standards as guidelines for planning technology-based activities in which students achieve success in learning, communication, and prepare them to meet the challenges of today's technology-rich world of work.

## Computer/Technology Standards of Learning

### Grades K-2

#### Basic Operations and Concepts

- C/T K-2.1 The student will demonstrate knowledge of the nature and operation of technology systems.
- Identify the computer as a machine that helps people at school, work, and play.
  - Use technology to demonstrate the ability to perform a variety of tasks; among them turning on and off a computer, starting and closing programs, saving work, creating folders, using pull-down menus, closing windows, dragging objects, and responding to commands.
- C/T K-2.2 The student will demonstrate proficiency in the use of technology.
- Demonstrate the use of mouse, keyboard, printer, multimedia devices, and earphones.
  - Use multimedia resources such as interactive books and software with graphical interfaces.

#### Social and Ethical Issues

- C/T K-2.3 The student will practice responsible use of technology systems, information, and software.
- Know the school's rules for using computers.
  - Understand the importance of protecting personal information or passwords.
  - Understand the basic principles of the ownership of ideas.
- C/T K-2.4 The student will use technology responsibly.
- Demonstrate respect for the rights of others while using computers.
  - Understand the responsible use of equipment and resources.

#### Technology Research Tools

- C/T K-2.5 The student will use technology to locate, evaluate, and collect information from a variety of sources.
- Identify information in various formats.
  - Identify available sources of information.

### **Problem-solving and Decision-making Tools**

- C/T K-2.6 The student will use technology resources for solving problems and making informed decisions.
- Recognize that technology can be used to solve problems and make informed decisions.
  - Identify and select technologies to address problems.

### **Technology Communication Tools**

- C/T K-2.7 The student will use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
- Identify the best tool to communicate information.
  - Use technology tools for individual writing, communication, and publishing activities.
  - Demonstrate the ability to create, save, retrieve, and print document.

### **Computer/Technology Standards of Learning**

#### **Grades 3-5**

#### **Basic Operations and Concepts**

- C/T 3-5.1 The student will demonstrate knowledge of the nature and operation of technology systems.
- Discuss common uses of computers in their daily life and the advantages and disadvantages those uses provide.
  - Communicate about basic technology components with appropriate terminology.
- C/T 3-5.2 The student will demonstrate proficiency in the use of technology.
- Use skills and procedures needed to operate various technologies such as scanners, digital cameras and hand-held computers.
  - Identify basic software applications such as word processing, databases, and spreadsheets.

#### **Social and Ethical Issues**

- C/T 3-5.3 The student will demonstrate knowledge of ethical, cultural, and societal issues related to technology.
- Identify how technology has changed society in areas such as communications, transportation, and the economy.

- Discuss ethical behaviors when using information and technology.

C/T 3-5.4 The student will practice responsible use of technology systems, information, and software.

- Understand the need for the school division's acceptable use policy.
- Discuss the rationale of fair use and copyright regulations.
- Follow rules for personal safety when using the Internet.

C/T 3-5.5 The student will demonstrate knowledge of technologies that support collaboration, personal pursuits, and productivity.

- Work collaboratively when using technology.
- Practice and communicate respect for people, equipment, and resources.
- Understand how technology expands opportunities for learning.

### **Technology Research Tools**

C/T 3-5.6 The student will use technology to locate, evaluate, and collect information from a variety of sources.

- Collect information from a variety of sources.
- Evaluate the accuracy of electronic information sources.
- Enter data into databases and spreadsheets.

### **Problem-solving and Decision-making Tools**

- C/T 3-5.7 The student will use technology resources for solving problems and making informed decisions.
- Determine when technology tools are appropriate to solve a problem and make a decision.
  - Select resources to solve problems and make informed decisions.

### **Technology Communication Tools**

- C/T 3-5.8 The student will use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
- Produce documents demonstrating the ability to edit, reformat, and integrate various software tools.
  - Use technology tools for individual and collaborative writing, communication, and publishing activities.
  - Use telecommunication tools to communicate and share information with others.

## **Computer/Technology Standards of Learning**

### **Grades 6-8**

#### **Basic Operations and Concepts**

C/T 6-8.1 The student will demonstrate knowledge of the nature and operation of technology systems.

- Describe how technology impacts learning.
- Explore how software and hardware are developed to respond to the changing needs of technology.
- Describe compatibility issues, between various types of technology.

C/T6-8.2 The student will demonstrate proficiency in the use of technology.

- Understand that hardware and software have different operating systems that may affect their use.
- Use self-help features such as online tutorials and manuals to learn to use hardware and software.

#### **Social and Ethical Issues**

C/T 6-8.3 The student will demonstrate knowledge of ethical, cultural, and societal issues related to technology.

- Demonstrate knowledge of current changes in information technologies.
- Explain the need for laws and policies to govern technology.
- Explore career opportunities in technology related careers.

C/T 6-8.4 The student will practice responsible use of technology systems, information, and software.

- Demonstrate the correct use of fair use and copyright regulations.
- Demonstrate compliance with the school division's Acceptable Use Policy and other legal guidelines.

C/T 6-8.5 The student will demonstrate knowledge of technologies that support collaboration, personal pursuits, and productivity.

- Work collaboratively and/or independently when using technology.
- Practice preventative maintenance of equipment, resources, and facilities.
- Explore the potential of the Internet as a means of personal learning and the respectful exchange of ideas and products.

### **Technology Research Tools**

- C/T 6-8.6 The student will use technology to locate, evaluate, and collect information from a variety of sources.
- Use databases and spreadsheets to evaluate information.
  - Use technology resources such as calculators and data collection probes for gathering information.
  - Use Internet and other electronic resources to locate information in real time.
- C/T 6-8.7 The student will evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.
- Use search strategies to retrieve information.
  - Evaluate the accuracy, relevance, and appropriateness of electronic information sources.

### **Problem-solving and Decision-making Tools**

- C/T 6-8.8 The student will use technology resources for solving problems and making informed decisions.
- Employ technology in the development of strategies for solving problems.
  - Use a variety of technologies to identify and provide possible solutions to real-world problems.
  - Use content-specific tools, software, and simulations such as environmental probes, graphic calculators, exploratory environments, and web tools.
  - Participate in collaborative problem-solving activities.
  - Select and use appropriate tools and technology resources to accomplish a variety of tasks.

### **Technology Communication Tools**

- C/T 6-8.9 The student will use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
- Choose the appropriate tool, format, and style to communicate information.
  - Independently use technology tools to create and communicate for individual and/or collaborative projects.
  - Produce documents demonstrating the ability to edit, reformat, and integrate various software tools.

## Computer/Technology Standards of Learning

### Grades 9-12

#### Basic Operations and Concepts

C/T 9-12.1 The student will demonstrate knowledge of the nature and operation of technology systems.

- Discuss the inherent advantages and limitations of technology.
- Define the relationship between infrastructure, electronic resources, and connectivity.
- Identify and describe the impact of new and emerging technologies and their applications.

C/T 9-12.2 The student will demonstrate proficiency in the use of technology.

- Identify and resolve hardware and software compatibility issues.
- Develop and communicate strategies for solving routine hardware and software problems.

#### Social and Ethical Issues

C/T 9-12.3 The student will demonstrate knowledge of ethical, cultural, and societal issues related to technology.

- Assess the potential of information and technology to address personal and workplace needs.
- Demonstrate knowledge of electronic crimes such as viruses, pirating, and computer hacking.
- Explore and participate in online communities, and online learning opportunities.
- Identify the role that technology will play in future career opportunities.

C/T 9-12.4 The student will practice responsible use of technology systems, information, and software.

- Adhere to fair use and copyright guidelines.
- Adhere to the school division's Acceptable Use Policy as well as other state and federal laws.
- Model respect for intellectual property.

C/T 9-12.5 The student will demonstrate knowledge of technologies that support collaboration, personal pursuits, and productivity.

- Respectfully collaborate with peers, experts, and others to contribute to an electronic community of learning.
- Model responsible use and respect for equipment, resources, and facilities.

### **Technology Research Tools**

- C/T 9-12.6 The student will use technology to locate, evaluate, and collect information from a variety of sources.
- Integrate databases, spreadsheets, charts, and tables to create reports.
  - Use available technological tools to expand and enhance understanding of ideas and concepts.
- C/T 9-12.7 The student will evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.
- Analyze and draw conclusions about the comprehensiveness and bias of electronic information sources.
  - Design and implement a variety of search strategies to retrieve electronic information.

### **Problem-solving and Decision-making Tools**

- C/T 9-12.8 The student will use technology resources for solving problems and making informed decisions.
- Investigate and apply expert systems, intelligent agents, and simulations in real-world situations.
  - Select and apply technology tools for information analysis, problem-solving, and decision-making.
  - Use technology resources such as educational software, simulations, and models for problem-solving, and independent learning.
  - Produce and disseminate information through collaborative problem-solving activities.

### **Technology Communication Tools**

- C/T 9-12.9 The student will use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
- Determine the most effective tool, format, and style to communicate to specific audiences.
  - Use technology-based options, including distance and distributed education, to collaborate, research, publish, and communicate.
  - Practice self-directed use of advanced technology tools for communicating with specific audiences.

### Appendix G

#### Estimated Annual Technology Budget 2006-2011

Year	Software	Hardware Repairs	Hardware Upgrades	Professional Development	Total
<b>2006-07</b>	SASI - \$8000 RDA - \$6000 Filter - \$3500/3 years Cornerstone - \$1688 Acc. Reader- \$1381 (McHarg) Acc. Reader- \$1411 (Belle Heth) Brain Pop - \$150 GW Guard.- \$750 Technet- \$449 Symantec- \$3500 Veritas- \$418 SmartNet- \$6600  <b>Total - \$33,847</b>  <b>Source:</b> Local	Hard Drives Mother Boards Power Supplies Monitors Printer repairs CD RW DVD RW  <b>Total - \$20,000</b>  <b>Source:</b> Local ERATE	Replacement of computer labs @ \$60,000  (10) Digital Projectors @ \$10,000  Addition of (10) Smart Boards@ \$15,000  <b>Total- \$85,000</b>  <b>Source:</b> VPSA Bond, Local, Title II and V	Conference Registrations VSTE and VDOE @  \$5000  After school workshops and classes  \$3000  <b>Total- \$8000</b>  <b>Source:</b> Title II Part A and D	<b>Total-</b>          <b>\$146,847</b>
<b>2007-08</b>	Estimated  <b>Total – \$35,000</b>	Estimated  <b>Total- \$22,000</b>	Estimated  <b>Total- \$87,000</b>	Estimated  <b>Total- \$8500</b>	Estimated  <b>Total-</b>  <b>\$152,500</b>
<b>2008-09</b>	Estimated  <b>Total – \$36,000</b>	Estimated  <b>Total- \$22,000</b>	Estimated  <b>Total- \$90,000</b>	Estimated  <b>Total- \$8900</b>	Estimated  <b>Total-</b>  <b>\$156,900</b>
<b>2009-10</b>	Estimated  <b>Total – \$37,000</b>	Estimated  <b>Total- \$22,000</b>	Estimated  <b>Total- \$93,000</b>	Estimated  <b>Total- \$8900</b>	Estimated  <b>Total-</b>  <b>\$160,900</b>
<b>2010-11</b>	Estimated  <b>Total – \$40,000</b>	Estimated  <b>Total- \$22,000</b>	Estimated  <b>Total- \$97,000</b>	Estimated  <b>Total- \$9,000</b>	Estimated  <b>Total-</b>  <b>\$169,000</b>

Policy IIBEA

## **Appendix H**

### **Acceptable Computer Use Policy**

The Radford City School Board provides a computer system, including the Internet to promote educational excellence by facilitating resource sharing, innovation and communication. The term computer system includes hardware, software, data communication lines and devices, terminals, printers, CD-ROM devices, tape drives, servers, mainframe and personal computers, the Internet and other internal or external networks.

All use of the division's computer system must be (1) in support of education and/or research, or (2) for legitimate school business. Use of the computer system is a privilege, not a right. The Division Superintendent shall establish administrative procedures, for the School Board's approval, containing the appropriate uses, ethics and protocol for the computer system, including the prohibition of illegal material, prevention of access to material that the school division deems to be harmful to juveniles as defined in Va. Code sections 18.2-390 and measures to enforce this policy and regulation including the selection of a technology for the division's computers having Internet access to filter or block Internet access through such computers to child pornography as set out in Va. Code section 18.2-374.1.1 and obscenity as defined in Va. Code section 18.2-372. Any communication or material used on the computer system, including electronic mail or other files deleted from a user's account may be monitored or read by school officials.

Use of the School Division's computer system shall be consistent with the educational or instructional mission or administrative function of the Division as well as the varied instructional needs, learning styles, abilities and developmental levels of students. The Division's computer system is not a public forum.

Each teacher, administrator, student and parent/guardian of each student shall sign the Acceptable Computer System Use Agreement, IIBEA-E2, before using the Division's computer system. The failure of any student, teacher or administrator to follow the terms of the Agreement, this policy or accompanying regulation may result in loss of computer system privileges, disciplinary action and/or appropriate legal action.

The School Board is not responsible for any information that may be lost, damaged or unavailable when using the computer system or for any information retrieved via the Internet. Furthermore, the School Board will not be responsible for any unauthorized charges or fees resulting from access to the computer system.

The Division Superintendent shall submit to the Virginia Department of Education this policy and accompanying regulations biennially.

Policy IIBEA-R

## Acceptable Computer System Use

All use of the Radford School Division's computer system shall be consistent with the School Board's goal of promoting educational excellence by facilitating resource sharing, innovation and communication. The term computer system includes hardware, software, data communication lines and devices, terminals, printers, CD-ROM devices, tape drives, servers, mainframe and personal computers, the Internet and any other internal or external network.

Computer System Use-Terms and Conditions:

1. **Acceptable Use.** Access to the Division's computer system shall be (1) for the purposes of education or research and be consistent with the education objectives of the Division or (2) for legitimate school business
2. **Privilege.** The use of the Division's computer system is a privilege, not a right
3. **Unacceptable Use.** Each user is responsible for his or her actions on the computer system. Prohibited conduct includes:
  - Using the network for any illegal activity, including violation of copyright or other contracts, or transmitting any material in violation of any federal, state or local law.
  - Sending, receiving, viewing or downloading illegal material via the computer system.
  - Unauthorized downloading of software
  - Downloading copyrighted material for unauthorized use
  - Using the computer system for private financial or commercial gain.
  - Wastefully using resources such as file space.
  - Gaining unauthorized access to resources or entities.
  - Posting material authorized or created by another without his or her consent.
  - Using the computer system for commercial or private advertising.
  - Submitting, posting, publishing or displaying any obscene, profane, threatening, illegal or other inappropriate material.
  - Using the computer system while access privileges are suspended or revoked.
  - Vandalizing the computer system, including destroying data by creating or spreading viruses or by other means.
4. **Network Etiquette.** Each user is expected to abide by generally accepted rules of etiquette, including the following:
  - Be polite
  - Users shall not forge, intercept or interfere with electronic mail messages.
  - Use appropriate language. The use of obscene, lewd, profane, threatening or disrespectful language is prohibited.

- Users shall not post personal contact information about themselves or others.
  - Users shall respect the computer system's resource limits.
  - Users shall not post chain letters or download large files.
  - Users shall not use the computer system to disrupt others
  - Users shall not read, modify or delete data owned by others.
5. **Liability.** The School Board makes no warranties for the computer system it provides. The School Board shall not be responsible for any damages to the user from use of the computer system, including loss of data, non-delivery or missed delivery of information, or service interruptions. The School Division denies any responsibility for the accuracy or quality of information obtained through the computer system. The user agrees to indemnify the School Board for any losses, costs or damages incurred by the School Board relating to or arising out of any violation of these procedures.
  6. **Security.** Computer system security is a high priority for the school division. If any user identifies a security problem, the user shall notify the building principal or system administrator immediately. All users shall keep their passwords confidential and shall follow computer virus protection procedures.
  7. **Vandalism.** Intentional destruction of any part of the computer system through creating or downloading computer viruses or by any other means is prohibited.
  8. **Charges.** The School Division assumes no responsibility for any unauthorized charges or fees as a result of using the computer system, including telephone or long-distance charges.
  9. **Electronic Mail.** The School Division's electronic mail system is owned and controlled by the School Division. The School Division may provide electronic mail to aid students and staff in fulfilling their duties and as an educational tool. Electronic mail is not private and may be monitored and accessed by the School Division. Unauthorized access to an electronic mail account by any student or employee is prohibited. Users shall be held personally liable for the content of any electronic message they create. Downloading any file attached to an electronic message is prohibited unless the user is certain of that message's authenticity and the nature of the file.
  10. **Enforcement.** This procedure and the policy it supports shall be enforced by monitoring information on the School Division's computer system. To protect students, software will be installed on the division's computers having Internet access to filter or block internet access through such computers 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 may be installed on the computer system to block other obscene/illegal material as well as material that the school division deems to be harmful to juveniles. Any violation of these regulations shall result in loss of computer system privileges and may also result in appropriate disciplinary action as determined by School Board policy, or legal action.

**Acceptable Use Policy (AUP) and Computing Rules  
Radford City Schools**

1. Users must not attempt to penetrate any school computing system security or the security system of off-campus organizations.
2. Users must not intentionally locate, write, send, or store material that is lewd, obscene, or pornographic.
3. Users must abide by system regulations posted in the computer laboratories and by any other rules established by faculty in regard to computer use.
4. The user is responsible for all activity that occurs under his or her account. Passwords must not be shared.
5. The user must abide by all copyright laws applicable to software, Internet materials, and other resources.
6. Radford City Schools' computing facilities may not be used for any commercial or business activity unless expressly authorized in writing by the school administration.
7. Users must not intentionally cause the computer or system to behave atypically.
8. Users may not intentionally gain unlawful access to others' files, programs, or accounts.
9. Users must use appropriate, inoffensive language in all electronic communications.
10. Users must not place unlawful information on the Internet nor use the Internet in any unlawful manner.

There are times when school personnel may need to examine files and actual or logged network sessions of a computer user. These times, though infrequent, are necessary for the reasonable and proper administration of school computing resources. At such times, school personnel are investigating violations or possible violations of security and /or rules and interactions that may be contributing to poor computer performance or computer malfunctions.

The Virginia Department of Education requires school divisions across the commonwealth to administer the Virginia Standards of Learning Tests each year. These tests are administered to students in grades 3, 5, and 8 as well as end of course tests in Algebra I, Algebra II, Geometry, World History I, World History II, US History, Earth Science, Biology, Chemistry, English 11 Reading and English 11 Writing. Beginning in the spring 2002 Radford City Schools will participate in the Virginia Standards of Learning on-line testing program. This program will provide students the opportunity to take the Virginia SOL test on the computer, which will provide a faster report of test data to school officials. Students testing on-line will access the test via the Internet through a secured site. Parents who choose not to allow their child to access the Internet through a computer at school are asked to give permission for their child to access the Internet for on-line testing purposes.

I agree to the rules and hereby give permission for \_\_\_\_\_ to use the computer and the Internet.

**Parent or Guardian Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

I agree to the above rules and will abide by them in my use of the computer and the Internet.

**Student Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

I do not wish for \_\_\_\_\_ to personally use the computers to access the Internet. I understand that the teacher, guidance counselors, lab assistants, may use the Internet in classroom instruction.

**Parent or Guardian Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

I do not wish for \_\_\_\_\_ to use the computer to access the Internet. I do however, grant permission for use of the computer for the Virginia Standards of Learning on-line testing program.

**Parent or Guardian Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_