

# Colonial Heights City Public Schools Educational Technology Plan for 2008 – 2012:

## Planning for an Effective Educational Technology Program



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Approved by the School Board on August 26, 2008

Reviewed by the Virginia Department of Education and found to be in alignment with the Educational Technology Plan for Virginia

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Editor, Mark D. Webster, Director of Technology and Learning

## Vision Statement

Colonial Heights City Public Schools, in partnership with the home and community, will provide each student with a relevant, quality education. All students will be instructed in the achievement of academic knowledge and technology skills to enable them to become independent, productive members of society.

We prepare all students to be successful in an ever-changing technology environment. Our plan of implementation for technology is based on research and best practice as it applies to the following five essential components of a comprehensive educational technology program:

- 1) Technology Integration - The appropriate use of technologies as effective tools in facilitating learning in different curriculum areas, and across different levels of cognitive inquiry.
- 2) Professional Development – Covers the training of teachers and other school division staff to be effective users of technology, with a specific focus on the Virginia Technology Standards for Instructional Personnel.
- 3) Connectivity – Involves the interconnected system of technology infrastructure and related hardware and software that provides users equitable access to educational resources.
- 4) Educational Applications – Instructional and administrative applications and software that are accessible by computer, over school networks, or the Internet.
- 5) Accountability - Addresses the evaluation of technology and its specific value to teaching and learning environments, data management, and decision support functions related to our schools.

## **Technology Planning Committee for 2008 – 2012 Colonial Heights City Public Schools**

### SAO Administration

- Joe Douglas, Instructional Specialist
- Kerry Robinson, Director of Assessment and Data
- Mark Webster, Director of Technology and Learning, Technology Planning Committee Chair, Editor of Educational Technology Plan

### School Administration

- Steve Castle, Assistant Principal, Colonial Heights Middle School
- Kristen Janssen, Assistant Principal, Colonial Heights High School

### Teacher Representatives

- Bill Hertz, Middle school representative
- Donna Moring, Elementary representative
- Paul Riding, High school representative

### Technology Lead Teachers

- Mary Buyalos, North Elementary School
- Jennifer Corrigan, Tussing Elementary School
- Charles Davis, Teacher, Colonial Heights Middle School
- Gayle Miller, Lakeview Elementary School
- Katherine Wollerman, Colonial Heights High School

### Instructional Technology Integration Specialists

- Buddy Palatiere, Instructional Technology Integration Specialist – Secondary
- Debbie Walwer, Instructional Technology Integration Specialist – Elementary

### Representative for Computer Support Specialists

- Julie Bowles, Computer Support Specialist, Colonial Heights High School

Community input considered from the prior School Community Forum process (see Needs Assessment Data)

# Technology Plan – Executive Summary

## Overview

During 2008 a new educational technology plan was developed by a *Technology Planning Committee* of various stakeholders who worked together to articulate a vision and plan of action for the future. The technology plan covers the period 2008 – 2012 and will be submitted to the Superintendent and School Board for approval. This plan covers five broad areas related to technology, and includes goals, objectives, and implementation strategies for Technology Integration, Professional Development, Connectivity, Educational Applications, and Accountability. The focus of the work of most members of the Technology Planning Committee involved their subcommittee work on the Technology Integration and Professional Development components. On an ongoing basis from year to year, secondary and elementary Software Committees provide recommendations relating to Educational Applications.

## Educational Technology Accomplishments Since 2004

The school division worked hard to achieve much progress in educational technology over the time period of the previous technology plan, 2004 – 2008.

**Technology Infrastructure:** Our previous technology plan had observed that the school division was increasingly using more Internet and network resources and tools for both instruction and school administration. It was observed, however, that limited Internet access and connectivity, aging and unreliable network servers, and slow computers presented obstacles to educational use of technology. Our technology committee articulated important goals related to increasing Internet bandwidth, improving technology infrastructure, and providing access to upgraded, reliable computers. *Improvements related to Connectivity and Infrastructure were a major focus of our efforts over the course of our previous technology plan, and provided the foundation and framework for increased technology utilization by our schools.*

There were many improvements related to Technology Infrastructure.

- We upgraded the school division's central Internet gateway, located at the high school, to a DS3. The former ISDN lines at the three elementary schools and the central office were upgraded to T-1 lines. Colonial Heights Middle School's frame relay based T-1 was upgraded to dual ATM T-1 circuits, to meet the increasing technology demands at the middle school. To improve connectivity for Crossroads Day Class, a high speed wireless connection was installed that connects that building to the middle school.
- Reliable school-wide wireless networks were built at Colonial Heights High School and Colonial Heights Middle School, to support faculty and student laptop initiatives.
- In all five schools and the central office, aging outdated network switches were replaced with new 3Com switches.
- New application servers were deployed at all sites during the 2003 – 2004 school year.
- New files servers were deployed at all sites during the 2004 – 2005 school year.

- A new SonicWall firewall was deployed in July of 2004 to enhance our network security and perimeter defenses.
- Beginning in the 2004 – 2005 school year, we began to deploy specialized Network Attached Storage appliances at all sites to provide an efficient mechanism for data backups, and to better safeguard school data.
- New procedures were implemented for the offsite archival and safeguarding of school server backup tapes and data, using Iron Mountain.
- School computers were upgraded and or replaced according to available funding, with an effort being made to reduce the number of years of the equipment life cycle.

**Information Systems:** The school division made great strides in building the enterprise class information systems that are needed to better facilitate school administration in the twenty-first century.

- A new dynamic, database driven website was implemented.
- A new email system was deployed to provide faculty and staff with web-based access to email, to improve communication with parents and the school community, and to improve email security and Spam protection.
- The school division implemented the new Online Application System, AppliTrack, to better attract candidates to position openings in the school division, and to modernize our hiring procedures.
- A cafeteria point-of-sale (POS) system was implemented at all five schools to automate functions related to the purchase of meals.
- The Office of Technology and Learning implemented an online Technology Work Order System to better keep track of technical support requests and needs in our schools.

**Accountability and Educational Applications:** Technology is an integral part of education in a public school division, and serves to promote better teaching and learning. Several technology improvements were implemented to enhance student achievement, and improve public school accountability.

- Online SOL Testing – Improvements to technology infrastructure, including a wireless network, provided the framework for online SOL testing. Objective 14 from the **Comprehensive Plan** included the objective: “All high school end-of-course tests will be completed online.” We began piloting successful online SOL testing in the spring of 2004, and this expanded in the ensuing years. All end-of-course SOL tests were completed online during the spring of 2008, with the exception of Geometry.
- The hardware running our Student Information System (SIS) was upgraded, and the system itself was migrated to a new online system. The new SIS provides teachers and staff a user friendly system for student records, while providing a future capability for giving parents online access to student grades.
- A vertical SIF installation was completed that involved implementing a new Zone Integration Server to automatically keep our Student Testing IDs up-to-date that are used for SOL testing.
- A new 8e6 Technologies Internet content filter system was deployed, to give us more effective Internet content filtering on laptop computers that are taken outside our firewall,

to provide greater reporting and accountability, and to better protect students from inappropriate Internet content.

- Educational Applications – New online or network applications were implemented to improve education, help students, or better manage student assessment. This includes IEP Online, Harcourt Math, Harcourt Reading, Achieve 3000, Moodle, and My Access.

**Technology Integration and Professional Development:** Dr. Joseph Cox, Superintendent, conducted a series of technology tours at all schools during the 2007 – 2008 school year, and observed many effective ways that technology can enhance teaching and learning in the classroom. Teachers and students shared how they were integrating technology into instruction, while using many curriculum software applications, and technology tools such as laptops, projectors, COW carts, slates, interactive whiteboards, “clickers,” multimedia resources, and cutting edge technology. Descriptions of these tours along with photographs are posted on the school division’s website under “Division Announcements.” *These news items chronicle and portray some of the success stories with technology that have become increasingly more common with our teachers and students.*

During the course of our previous technology plan, there were many accomplishments related to Technology Integration and Professional Development:

- Successful student laptop initiatives in Honors Biology and Honors English were implemented at Colonial Heights High School.
- A Computer on Wheels (COW) cart with laptop and LCD projector was provided to every grade level at our three elementary schools.
- Most high school and middle school classrooms now have permanently installed LCD projectors.
- All high school and middle school teachers were assigned laptop computers.
- Our Instructional Technology Integration Specialists have been invaluable in training and preparing our teachers to be innovative users of technology in the classroom.
- Technology Summer Institute has been a catalyst to prepare a cadre of teachers eager to leverage the power of technology in order to benefit students. These teachers in turn inspire other teachers to integrate technology into instruction.
- The Technology a Step Ahead Award was implemented in order to recognize teachers for their extraordinary efforts to use technology effectively for teaching and learning.

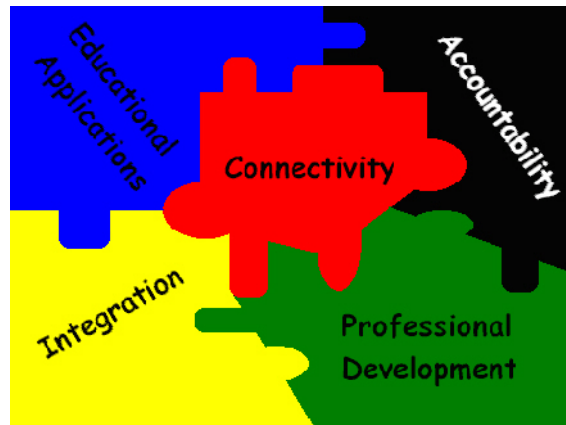
## Planning for the Future

Our new Educational Technology Plan will build on the school division’s previous hard work, while striving to accomplish important new technology goals and objectives. Our Educational Technology Plan will serve as a blueprint to guide Colonial Heights City Public Schools in constructing a division-wide educational technology program.

Our new technology plan includes the objectives related to technology from the school division’s **Comprehensive Plan:** Objectives 7, 8, 9, and 14. Objective 9 from the Comprehensive Plan, “A comprehensive laptop program for students and teachers will be implemented at Colonial Heights High school” has been incorporated under Technology Integration as the first objective

for Goal 1. The other Comprehensive Plan objectives 7, 8, and 14 related to technology have been included within the Accountability component. Comprehensive Plan Objectives 7 and Objectives 8 pertain to increasing the use of technology by students and teachers by 20 percent by 2012. Lastly, Objective 14 from the Comprehensive Plan includes the objective: “All high school end-of-course tests will be completed online.”

After the Vision Statement, the heart of this plan involves *Planning for the Five Main Components of Our Educational Technology Plan*. The framework for each of the five components includes goals, which are broad statements of what we wish to accomplish, followed by objectives which are more specific and detailed. Implementation strategies are also included to define what initiatives, programs, and technologies we will strive to implement in our efforts to demonstrate that we have achieved our goal and objectives.



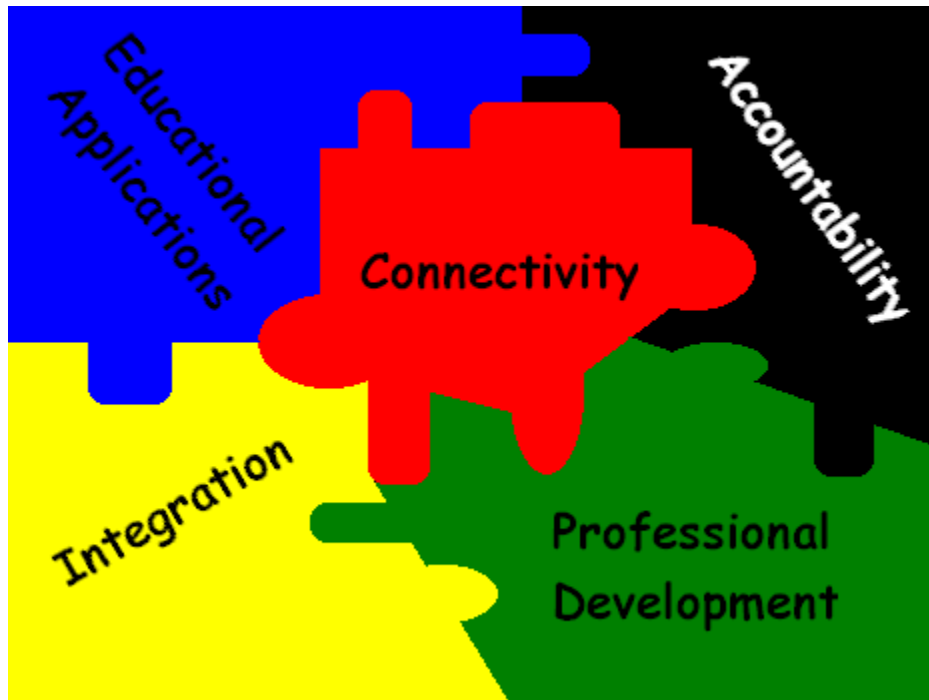
### Needs Assessment Data

The latter part of the Technology Plan includes *Needs Assessment Data* related to feedback from different stakeholders. The Technology Planning Committee participated in a “Community Forum” style needs assessment on April 10, 2008 to discuss “what we do well” and “what we can do better” related to educational technology. Technology related needs assessment data has also been included from the School Community Forums that were held in prior years. While much work has been accomplished since these schools forums took place, in order to address the issues voiced by participants, the data is presented as an historical record, and because the community feedback provided guidance to the school division in planning for technology improvements.

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## Planning for the Five Main Components of Our Educational Technology Plan

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### Technology Integration

Technology Integration refers to the appropriate use of specific technologies as highly effective tools in facilitating learning across all levels of cognitive inquiry and development.

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#### Goal 1

Improve teaching and learning through the appropriate use of technology.

#### Objectives

1. A comprehensive laptop program for students and teachers will be implemented at Colonial Heights High School (Objective 9 from *Comprehensive Plan*).
2. All instructional staff members must be technology literate according to state standards.

3. Principals and administrators will evaluate and encourage effective instructional use of educational technology.
4. Teachers will integrate computer technology skills into their instruction and follow grade level goals for computer technology education as specified by the Computer Technology Standards of Learning.
5. Students will routinely use technology in a variety of learning activities across the curriculum, and demonstrate achievement with the state Computer Technology Standards of Learning.
6. Technology will be used to measure and analyze student achievement levels with tools provided by the school division.
7. Elementary teachers will be provided with a laptop.
8. Provide monitoring software for computer labs and Media Centers to provide better capabilities to supervise student use of computers, broadcast the teacher's screen, and distribute and collect documents.

### **Implementation Strategies**

- After consultation with teachers, staff, and administrators, budget proposals will be presented to the Superintendent related to the laptop program for students and teachers at Colonial Heights High school.
- The instrument used for teacher evaluation will be revised to include the evaluation of technology integration.
- Provide staff development activities and training to integrate and use technology effectively (see Professional Development component for more detailed plans).
- Principals and other administrators will participate in the technology integration training that teachers and other staff receive.
- Teachers will incorporate the Computer Technology Standards of Learning into their lessons and lesson plans.
- Funds will be provided for laptop computers for elementary school teachers, so they can better utilize technology in their classrooms.
- Purchase and deploy computer monitoring software for the computer labs and media centers in each school building.
- A site on our Moodle server will be created for teachers to share PowerPoint presentations and other instructional resources.

### **Goal 2**

Promote division-wide equity in the implementation of technology-enhanced teaching and learning.

### **Objectives**

1. Educators and students at all schools, secondary and elementary, have equitable access to technology to support instructional goals.
2. Appropriate technology-based instructional strategies are used for students with unique needs.

### **Implementation Strategies**

- Purchase equipment that is equitably distributed amongst all the schools in the division. In particular, make sure that the elementary schools have equal access to resources that fit the needs of their students.
- Provide reimbursement for teachers and other staff members to attend workshops where the latest technology is introduced to meet the needs of their diverse learners.

### **Goal 3**

Implement Internet safety instruction that is integrated into the school curriculum in all Colonial Heights Public Schools.

#### **Objectives**

1. An online professional development course on Internet safety instruction will be developed to provide teachers the opportunity to become more aware of important issues related to Internet safety, to be introduced to Internet safety materials, and to explore practical strategies for teaching Internet safety to students.

### **Implementation Strategies**

- The Director of Technology and Learning will develop an online course available to all staff members through Moodle to train teachers to implement the Internet safety program.
- Teachers will teach Internet safety to students as required by the state.

### **Goal 4**

Provide greater access to technology for our students.

#### **Objectives and Implementation Strategies**

1. An additional mobile lab will be added at each school. Budget funds will be sought and the equipment procured and deployed.

### **Goal 5**

Provide sufficient technology support.

#### **Objectives**

1. Instructional Technology Integration Specialists will be hired in accordance with Standards of Quality.
2. Provide trained Computer Support Specialists at each school.

**Implementation Strategies**

- Budget funds will be provided for additional Instructional Technology Resource Teachers if enrollment increases.
- Training will be provided for Computer Support Specialists to enhance their skill set.

**Goal 6**

Promote proper meaningful use of computer labs to support the core curriculum areas.

**Objectives**

1. Teachers will model appropriate use of computers while supervising students in the computer lab.
2. Teachers will plan computer lab activities that support lessons in Math, Language Arts, Social Studies and Science.

**Implementation Strategies**

- Teachers will include activities that integrate computer lab resources and related technology in their lesson plans.

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## Professional Development

Professional development covers the training of teachers and other school division staff to be effective users of technology, with a specific focus on the Virginia Technology Standards for Instructional Personnel.

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### Goal 1

Additional time will be provided for Professional Development training in technology integration.

### Objectives

1. Over the time period of this plan, we will seek to add two full days of professional development to the instructional calendar for technology integration training and other staff development.
2. Instructional Technology Integration Specialists will be hired in accordance with Standards of Quality. These individuals will be responsible for coordinating technology professional development activities. This will include regular communication with staff members and administrators to provide meaningful sessions for the integration of technology.
3. Each teacher will be encouraged to attend at least one hour of technology training in a Technology Summer Institute session of their choice. A portion of the teacher's flex-day may be used for this purpose.
4. The number of elementary teachers to attend the Technology Summer Institute will increase by 10 % each year of the plan.
5. Additional funding will be provided to expand the existing Technology Summer Institute sessions as the need is identified.
6. Over the time period of this plan, we will seek to provide monetary incentives for participation in Technology Summer Institute sessions.
7. During a new teacher mentoring meeting, new staff will be introduced to our technology resources.

## **Implementation Strategies**

- Secure additional funding for monetary incentives for staff development, and expansion of the Technology Summer Institute.
- Work with Instructional Services to implement technology training into our teacher mentoring program.
- Propose additional days to the School Year Calendar for staff development and technology training.

## **Goal 2**

Provide customized training for technology staff to promote unity and a shared mission, and to present relevant training on technology integration and technology support topics.

## **Objectives and Implementation Strategies**

1. The Director of Technology will continue to hold Technology Academy for both division-wide and school technology staff.
2. Participants will continue to have the opportunity to share their knowledge and skills with colleagues by presenting technology training topics.

## **Goal 3**

Provide training and support for administrators so that they can model integration of educational technology, and evaluate the instructional use of technology in the classroom.

## **Objectives**

1. Principals and other administrators will participate in the technology integration training that teachers and other staff receive.
2. Administrative staff will receive focused professional development training in the use of technology resources and relevant applications.
3. Administrators will be provided with strategies and to assist them in providing leadership to encourage teachers to be effective users of instructional technology.
4. Administrators will evaluate the effective use of classroom technology by teachers.

## **Implementation Strategies**

- Principals and other administrators can model exemplary staff development participation by attending the technology integration training provided for staff.
- Technology training sessions will be included in Administrative Cabinet for division and school administrators.
- Technology training sessions will be included in Superintendent's Leadership Advance professional development program.
- The evaluation instrument used for teacher evaluation will be revised to cover the observation of technology integration.

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## Connectivity

Connectivity involves the interconnected system of technology infrastructure and related hardware and software that provides users equitable access to educational resources.

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### Goal 1

Ensure that all schools have access to integrated instructional and administrative technology services across interoperable high-speed networks.

### Objectives

1. We will strive to upgrade the Wide Area Network (WAN) connections at all schools to reliable, high speed, broadband connections.
2. Adequate speed and bandwidth will be available at all schools for online and web-based instructional resources and applications, network educational applications, and information systems.
3. Local Area Network (LAN) infrastructure will be capable of delivering network data and applications to the desktop in a high-speed and efficient manner. Twenty-first century networks at each location will be engineered and managed to provide connectivity that is fast, efficient, and secure.
4. School-wide wireless networks will be maintained throughout our high school and middle school buildings to support mobile computing initiatives.
5. Wireless networking will be implemented in strategic locations in elementary schools to support mobile computing initiatives.

### Implementation Strategies

- The Director of Technology and Learning will continue to spearhead the exploration of high speed WAN solutions including leased lines, fiber optics, and wireless.
- Verizon and Comcast will furnish the school division with proposals for a fiber optics based WAN.
- The Director of Technology and Learning will have the previous wireless WAN feasibility study updated.
- The Director of Technology will submit to the Superintendent a proposal for upgrading our current leased line based WAN, to a high speed broadband WAN.
- The Office of Technology and Learning will manage the upgrading of the school division's network platform to Microsoft Active Directory.
- The Network Administrator will manage the engineering of Active Directory to achieve a twenty-first century network that is efficient and secure.

- Additional wireless access points will be installed in strategic locations in elementary schools, to eventually provide a school-wide wireless network by the end of this technology plan.

## **Goal 2**

Ensure technology support for ongoing, reliable, and secure network operations, and a satisfactory computer experience for end users.

### **Objectives and Implementation Strategies**

1. The school division will continue to fund and support division-wide technology support positions to provide the high level of support and expertise needed for network operations and computer support.
2. Computer hardware will be systematically kept up-to-date according to a schedule that correlates to the hardware life cycle, best practices, and available funding.
3. Network servers and equipment will be systematically kept up-to-date according to a schedule that correlates to the hardware life cycle, enterprise standards and practices, and available funding.
4. Enterprise methods will be utilized for creating and deploying reliable software images on large numbers of computers and laptop systems.
5. An online Technology Work Order System will be maintained to promote efficient managing of technical support requests, and the elevation of technical support issues from the Technology Paraprofessional to the Office of Technology and Learning.
6. Technology Academy will be continue to be offered and involve the participation of division-wide technology staff from the Office of Technology and Learning, and Technology Paraprofessionals from each school, in order to provide relevant technology staff development and training.
7. Technology support technicians will hold meetings and training sessions with school computer support staff for sharing of information, training and team building.
8. The Technology Integration Specialists will maintain a Moodle site dedicated to sharing information and tips relevant to technology support and technology integration.
9. Accurate and up-to-date documentation related to network systems, technology systems, and technology support will be maintained for all sites.
10. An accurate and up-to-date inventory of computer hardware and software will be maintained for all sites.
11. Funding will be provided to assist technology support staff and school technology paraprofessionals with training needs.

## **Goal 3**

Provide leadership and resources to promote the efficient identification, procurement, and implementation of proven existing and emerging technologies.

## Objectives and Implementation Strategies

1. Opportunities will be provided to teachers, staff, and administrators to participate in technology conferences and professional development in order to stay abreast of technologies, trends, and practices.
2. The Office of Technology and Learning will provide leadership with both information technology and instructional technology throughout the school division, supporting our use of technology for classroom instruction, business operations, and school administration.
3. Each Office of Technology and Learning staff member according to their own job role will strive to identify, recommend, and implement proven existing and emerging technologies that will benefit the school division.
4. The Director of Technology and Learning will use various means to consult with stakeholders, and discover technology needs in order to develop cost effective budget plans, and manage ongoing procurement.
5. A guiding principal for adopting technologies will be to deploy technology in such a way that it accelerates the momentum of key school division initiatives, and division strategic goals.
6. Technology staff will discuss and/or investigate possible sources for outside funding to include grants, gifts and other extraordinary funding opportunities.
7. Office of Technology and Learning staff will when appropriate seek outside advice and assistance from consultants and vendors for important technology initiatives.

## Goal 4

Build and maintain IT and network systems that are engineered and maintained according to best practices related to security, student safety, data protection, and disaster recovery.

## Objectives and Implementation Strategies

1. Division technology personnel will make best efforts to keep abreast of options for maintaining the security and integrity of our IT systems.
2. The school division will keep current anti-virus software support up-to-date and in force.
3. Data backups are a critical part of running a network and will be run on a dependable, regular schedule. Personnel will be designated for duties related to configuring, managing, monitoring, and archiving data backups.
4. Data restores will be regularly conducted to help ensure the integrity of information, databases, and related backup operations.
5. Internet content filtering and systems will be managed to protect students, provide accountability and reporting of Internet use, and support the school division's Internet safety program.
6. The Office of Technology and Learning will communicate the importance of network security issues to technology staff and general school system staff.
7. Network security will be tested and audited by both division technology staff, and a reputable outside security consultant.

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## Educational Applications

Educational applications – Instructional and administrative applications and software that are accessible by computer, over school networks, or the Internet.

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### Goal 1

Improve teaching and learning through the appropriate use of network-accessible online or web-based educational applications and resources.

### Objectives

1. Web-based resources for teaching and learning that effectively support the Virginia Standards of Learning will be provided.
2. Online library media databases and resources are provided to support student research.
3. Educational applications that are packaged as part of textbook adoptions will be installed and implemented for instruction and assessment.
4. Other network-accessible educational applications will be implemented that can assist teachers with student achievement.
5. Online course opportunities will be offered to students during Summer School.

### Implementation Strategies

- Subscriptions to World Book Online Reference Center will be provided for all schools, to provide online access to scholarly reference works.
- Harcourt Math and Harcourt Reading will be installed on elementary school computers, and training will be provided to teachers to provide them assistance with integrating these tools into classroom instruction.
- Easy Track from Micrograms Software will be installed on elementary school computers, and training will be provided to teachers to provide them assistance with this recordkeeping and assessment system.
- Subscriptions to United Streaming will be provided for all schools, and training provided to teachers to assist them in integrating multimedia rich content into instructional presentations.
- A Moodle server will continue to be managed by the school division to provide a web-based course management system that can house instructional materials, and provide online assessment and communication tools.
- The school division will continue to offer Star\_Portal to serve as a teacher friendly web-based system for managing student grades and attendance.
- NovaNET will be continue to be provided as the online curriculum platform for the division's alternative education program, the Community Day School.
- Educational applications such as Accelerated Reader and Star Reader will continue to be offered on school networks and computers.

- A Parent Institute subscription will be maintained with a hyperlink from the school division's website.
- Instructional Specialist Joe Douglas will coordinate the offering of online course opportunities for students beginning Summer School of 2008.

## **Goal 2**

Provide computer users with installed instructional software and productivity applications that are largely consistent on school computers, and which help to accomplish educational goals.

### **Objectives and Implementation Strategies**

- Software Committees will be maintained on an ongoing basis to allow school stakeholders to recommend educational applications that relate to curricula and educational goals. The recommendations will be submitted to the Assistant Superintendent of Instructional Services and the Director of Technology and Learning for approval.
- Microsoft Office Professional will be installed on school computers.
- The Paint.NET or other graphics software will be installed on school computers.
- Multimedia production software such as Microsoft Movie Maker, Photo Story, or other applications will be installed on school computers.
- Cute PDF Writer will be installed on school computers to provide an easy way to publish documents to PDF.
- Teachers and staff will generally be given a certain freedom to install software to expedite the instructional use of our computers, and to encourage productivity. Official software lists of approved or unapproved, supported or unsupported software will be posted on school computers. Teachers and staff will abide by the division's "Regulations Concerning Installing Software" and School Board policy, and only legally licensed software will be installed.

## **Goal 3**

Every school has an up-to-date automated library system for circulation and cataloging of library resources.

### **Objectives and Implementation Strategies**

- The school division will explore solutions and examine whether our library systems feature technology that is up-to-date, or whether our library systems should be migrated to a new library platform.
- The circulation and catalog data in our library systems will be backed up daily.

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## Accountability

Accountability addresses the evaluation of technology and its specific value to teaching and learning environments, data management, and decision support functions related to our schools.

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### Goal 1

The school division will provide an online parent communication system to provide access to grades and certain student records.

#### Objectives and Implementation Strategies

- During the 2008-2009 school year, an online parent communication program pilot will be conducted at Colonial Heights High School using Star\_Portal.
- The parent communication program will be expanded in ensuing school years pending the results of the pilot program.

### Goal 2

Assess the value that technology adds to teaching and learning environments.

#### Objectives and Implementation Strategies

1. The use of technology by students will increase by 20 percent by the end of the plan (Objective 7 from *Comprehensive Plan*).
2. Teachers will increase their use of technology as an instructional tool by 20 percent by the end of the plan (Objective 8 from *Comprehensive Plan*).
3. All high school end-of-course tests will be completed online (Objective 14 from *Comprehensive Plan*).
4. Elements of technology integration that benefit the teaching and learning environment will be identified.

### Goal 3

The school division will provide a student information system and appropriate decision support capabilities for all stakeholders.

#### Objectives and Implementation Strategies

1. The student information system in place will represent up-to-date technology and best practices.

2. The student information system will interface with the state system and the School Interoperability Framework (SIF).
3. Information systems will provide comprehensive information about student learning and progress, and provide effective tools for reporting.
4. Information systems interface to provide staff members the ability to use appropriate and effective data to make decisions.

#### **Goal 4**

Assess technology literacy.

#### **Objectives and Implementation Strategies**

1. A committee will be established to explore strategies for measuring whether all students are technology literate, and meet expectations for Computer Technology Standards pertaining to curricula and grade level.
2. As new teachers are employed by the school division, they will demonstrate competence and technology literacy according to the Technology Standards for Instructional Personnel.
3. When evaluating teachers and staff, principals and administrators will consider whether staff are technology literate according to their job duties and functions.
4. As the state adopts new Technology Standards for Instructional Personnel, the school division will explore how to implement these new standards in Colonial Heights Public Schools.

#### **Goal 5**

Ensure that our educational technology program is consistent with the state technology plan and other state requirements.

#### **Objectives and Implementation Strategies**

1. Colonial Heights Public Schools will have a technology plan that has been found to be in alignment with the state technology plan, and which meets state requirements related to specific matters such as Internet safety for students.
  2. The Director of Technology will recommend policies to the Superintendent and School Board that may need to be adopted in order to support technology plan goals.
  3. The school division will regularly review the progress and effectiveness of our technology plan.
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**Colonial Heights Technology Planning Committee Forum  
April 10, 2008**

Group 1, (Elementary/SAO Administration)  
Chartered by Debbie Walwer

**What Do We Do Well?**

1) Technology resources, software, etc. are provided to schools	8
2) Integration Specialists are helpful in providing support, instruction, and leadership in integrating technology into instruction	7
3) Technology use is encouraged	6
4) Summer Technology Institute, training is provided	5
5) Expansion of Online testing	3
6) Opportunity to attend conferences, EdTech and VSTE	2
7) Support is available when needed by Technology personal	3
8) Technology is accessible	3
9) Electronic communication/email is good, works well	2
10) Harcourt Math Software	2
11) Faculty laptop initiative at the secondary level	1
12) Every elementary grade level has a computer on wheels	0
13) Increased budget funds are evident by the purchase of equipment and software	0
14) SmartBoards are in place	0
15) Reading Software (Harcourt Electronic Testing)	0
<b>Total Votes</b>	<b>32</b>

**What Do We Can Do Better**

- |   |   |
|---|---|
| 1) Availability of equipment for all schools needs to be equitable (equitable use of funds for computers, projectors, COWs) | 8 |
| 2) Evaluate use of technology by teachers   | 7 |
| 3) Elementary Schools need updated computers  | 4 |
| 4) Better communication among grade levels & schools needs to be improved, to increase opportunities for sharing            | 3 |
| 5) Increase the number of support staff   ITRTs & Technicians   | 3 |
| 6) Licensed teachers in the computer labs   | 2 |
| 7) Laptops for elementary teachers  | 2 |
| 8) Increase use of technology for teaching and learning   | 2 |
| 9) Faster broadband connection to Elementary and Middle schools   | 2 |
| 10) Professional development for administrators needs to be increased   | 2 |
| 11) Stress the importance of Technology Standards of Learning   | 2 |
| 12) Computer Lab – Curriculum needs definition  | 1 |
| 13) Technology Paraprofessionals job duties need to be consistent among schools   | 1 |
| 14) Integration of technology needs to be emphasized  | 1 |
| 15) Use of Elementary Schools' Computer Labs needs study/Improvement/schedules need to be studied                           | 0 |
| 16) Users need to adopt a risk-taking attitude, try something new   | 0 |

**Total Votes 30**

Group 2, (Middle and High School)  
 Charted by Buddy Palatiere

### **What Do We Do Well?**

1) Technology Staff is willing to support/research new technologies, i.e.: Moodle, Email, Portal, Smart Boards	11
2) Teachers are willing to adapt to changing technologies i.e.: new software, additional technologies	10
3) Staff integrates the resources (technologies) we do have	5
4) Have support staff willing to help	4
5) Provide support peripherals, i.e.: Smart Boards, projectors, software	4
6) Provide staff development opportunities especially the Summer Institute	3
7) Our schools provide a meaningful tech experience for students	3
8) Focused on upgrading/re-evaluating the existing software/hardware	3
<b>Total Votes</b>	<b>43</b>

**What We Can Do Better**

- 1) Provide greater access to technology for our students  
(Need more computer labs) 11
- 2) Need to have additional support staff: need more ITRTs,  
Ninjas, Technician – w/ 1700 computers and adding we  
need the extra help 11
- 3) Communicate the upgrade process for new software and hardware 11
- 4) Allow for more staff development: Need for more planning time,  
learning time and integration time. Would like to see more In-service  
days during school, more Summer Institute Days, more New Teacher  
Training 4
- 5) Need monitoring software for labs and Media Centers 4
- 6) Provide equity of technologies between schools 1

**Total Votes 42**

**What Do We Can Do Better (Groups 1 and 2 combined)**

- |  |    |
|--|----|
| 1) Provide greater access to technology for our students<br>(Need more computer labs)  | 11 |
| 2) Need to have additional support staff: need more ITRTs,<br>Ninjas, Technicians – w/ 1700 computers and adding we<br>need the extra help   | 11 |
| 3) Communicate the upgrade process for new software and hardware   | 11 |
| 4) Availability of equipment for all schools needs to be equitable<br>(equitable use of funds for projections systems, COWs)   | 8  |
| 5) Evaluate use of technology by teachers  | 7  |
| 6) Elementary Schools need updated computers   | 4  |
| 7) Allow for more staff development: Need for more planning time,<br>learning time and integration time. Would like to see more<br>In-service days during school, more Summer Institute Days,<br>More New Teacher Training | 4  |
| 8) Need monitoring software for labs and Media Centers   | 4  |
| 9) Better communication among grade levels/schools needs to<br>be improved, increase opportunities for sharing   | 3  |
| 10) Licensed teachers in the computer labs   | 2  |
| 11) Laptops for elementary teachers  | 2  |
| 12) Increase use of technology for teaching and learning   | 2  |
| 14) Faster Broadband connection to Elementary and Middle schools   | 2  |
| 15) Professional Development for administrators needs to be increased  | 2  |
| 16) Stress the importance of Technology Standards of Learning  | 2  |

17) Computer Lab – Curriculum needs definition	1
18) Technology Paraprofessionals job description and duties, needs to be consistent among schools	1
19) Integration of Technology needs to be emphasized	1
Provide equity Increase the number of support staff ITRT Technicians of technologies between schools	1
20) Provide equity of technologies between schools	1
21) Increase the number of support staff, ITRT and technicians	1

### **Top Six – What Can We Do Better? Both Groups Combined**

1) Provide greater access to technology for our students (Need more computer labs)	11
2) Need to have additional support staff: need more ITRT, (ITIS), Ninjas, Network Techs – w/ 1700 computers and adding more, we need the extra help	11
3) Communicate the upgrade process for new software and hardware	11
4) Availability of equipment for all schools needs to be equitable (Equitable use of funds for computers, projectors, COWs)	8
5) Evaluate use of technology by teachers	7

**What We Do Well (Groups 1 and 2 combined)**

- 1) Technology Staff is willing to support/research new technologies, i.e.: Moodle, Email, Portal, Smart Boards 11
- 2) Teachers are willing to adapt to changing technologies i.e.: new software, additional technologies 10
- 3) Technology resources, software, etc, are provided to schools 8
- 4) Integration Specialists are helpful in providing support, instruction, and leadership in integrating technology into instruction 7
- 5) Technology use is encouraged 6
- 6) Staff integrates the resources (technologies) we do have 5
- 7) Summer Technology Institute, training is provided 5
- 8) Have support staff willing to help 4
- 9) Provide support peripherals, i.e.: Smart Boards, projectors, software 4
- 10) Provide staff development opportunities especially the Summer Institute 3
- 11) Our schools provide a meaningful tech experience for students 3
- 12) Focused on upgrading/re-evaluating the existing software/hardware 3
- 13) Expansion of Online testing 3
- 14) Support is available when needed by Technology personal 3
- 15) Technology is accessible 3
- 16) Communication, email is good, works well 2
- 17) Opportunity to attend conferences, EdTech and VSTE 2

18) Harcourt Math Software	2
19) Faculty laptop initiative at the secondary level	1
20) Every elementary grade level has a computer on wheels	0
22) Increased budget funds are evident by the purchase of equipment and software	0
23) SmartBoards are in Place	0
24) Reading Software (Harcourt Electronic Testing)	0

### **Top Five – What We Do Well? (Both Groups Combined)**

1) Technology Staff is willing to support/research new technologies, i.e.: Moodle, Email, Portal, Smart Boards	11
2) Teachers are willing to adapt to changing technologies i.e.: new software, additional technologies	10
3) Technology resources, software, etc, are provided to schools	8
4) Integration Specialists are helpful in providing support, instruction, and leadership in integrating technology into instruction	7
5) Technology use is encouraged	6

## **Technology Related Needs Assessment Data from School Community Forums**

Much work has been accomplished since these schools forums took place, in order to address the issues voiced by participants. However, this data is presented as it may still represent valuable needs assessment data for the Technology Planning Committee.

Note: Vote tally for items receiving votes are indicated.

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### **Lakeview Elementary School Community Forum, February 1, 2005**

Parents – What Do We Do Well?

- Website and e-mail helpful to contacting teachers, 0

Parents - What Can We Do Better?

- Starbase Attendance Report applies more to MS/HS in current format, modify for elementary schools, 4

Teachers and Staff – What Can We Do Better?

- More technology resources in classrooms, 4
  - More programs that work on new computers, 3
  - Take Microsoft products home, 0
  - More computers, 0
- 

### **North Elementary School Community Forum, November 16, 2004**

Parents – What Do We Do Well?

- Computer-based technology & learning, 0

Teachers and Staff – What Do We Do Well?

- Technology up-to-date 1
- IEP on-line, 0

Teachers and Staff – What Can We Do Better?

- Cafeteria point of sale system 3
-

**Tussing Elementary School Community Forum, October 19, 2004**

## Parents - What Can We Do Better?

- Some problems with emails bouncing back, 2

## Teachers and Staff – What Do We Do Well?

- Constantly improve technology, 0

## Teachers and Staff – What Can We Do Better?

- Point of sale for food service, 4
  - Computerized report cards at elementary level, 2
- 

**Colonial Heights High School Community Forum, October 18, 2005**

## Parents – What Can We Do Better?

- Website needs quicker revisions, 1

## Teachers – What We Do Well?

- Staying abreast of new technology, 2
- Laptop programs teachers and students, 3

## What Can We Do Better?

- Expand use of technology by teachers/additional more reliable equipment, 13
- Cafeteria needs point of sale, 12
- Technology training for teachers and more tech support staff, 8
- More library, technology resources, and equipment for students and staff, 6
- Technology is still behind, 6
- Keep high school website up-to-date, 5
- Problem with blocked web sites, 4

Note: Superintendent's letter to parents summarizing the forum's technology related items was listed as follows:

- Expand the use of technology, add more equipment, increase the technology staff, and keep staff up-to-date on technology
  - Implement a cafeteria "point of sale" system
-

### **Colonial Heights Middle School Forum, November 18, 2005**

#### Parents – What Can We Do Better?

- Problems with email system (Spam/AOL emails bounce back), 6

#### Teachers – What We Do Well?

- Incorporate technology that is available, 0

#### Teachers and Staff – What Can We Do Better?

- Seek more teacher input on technology changes, 1
- Technology shut downs frequent, 1
- Money to fix technology; not just patch it, 1

# **Fiscal Analysis for City of Colonial Heights Public Schools Educational Technology Plan 2008 – 2012**

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## **Summary**

This educational technology plan was written based on the assumption that its goals and objectives can be accomplished largely without having to rely on extraordinary funding. Generally, funding for this technology plan will come from either of two sources. It is hoped that the school division's operating budget will be able to provide funding necessary to accomplish many of the objectives in this plan. However, to a great extent, funding for many of the larger technology expenditures will require continued funding for technology through Virginia's Web-based SOL Technology Initiative. To supplement the monies available to us through the school division operating budget, and the SOL Technology Initiative, we will also utilize opportunities and funding available through our consortium partnerships.

## **Virginia's Web-based SOL Technology Initiative**

Achieving many of the objectives in the Connectivity component is highly dependent upon being reimbursed from the state for expenditures related to:

1. Providing a ratio of one computer for every five students.
2. Creating Internet-ready local area network capability in every school.
3. Assuring high-speed, high-bandwidth capabilities for instructional, remedial, and testing needs.

The requirements of this funding initiative necessitate beginning with needs at the high school level, and then for the middle school level. Because both Colonial Heights High School and Colonial Heights Middle School have been certified for online testing, we are able to seek reimbursement for eligible technology purchases at the elementary, middle, and high school levels.

## **School Division's Operating Budget**

We are grateful that our School Board has been so supportive in providing us with necessary funding to support educational technology initiatives and improvements. This has included funding for important technology initiatives such as upgrading our Internet bandwidth capacity for teaching and learning, updating and improving our technology infrastructure, and adding additional technology support staff to meet the demands of increased technology usage by teachers, students, and staff. Much has been accomplished to improve the equitable distribution of technology resources for all schools. In summary, we have been able to build the technology framework and infrastructure necessary for a solid educational technology program, provide increased technology resources for our schools, expand technology professional development

opportunities, and increase our staffing needed for both tech support and instructional technology integration.

### **Consortium Partnerships and Grant Funding**

Some objectives in this technology plan, particularly related to professional development and technology integration, will utilize opportunities and funding available to our school division through our memberships in the Central Virginia Consortium for Technology (CVC), and the Southside Virginia Regional Technology Consortium (SVRTC). Some funding for professional development and related technology is provided by federal monies through Title II Part A & D.

Our school division will continue to seek out other opportunities to fund programs related to the educational use of technology to improve teaching, learning, and school administration.