

Colonial Heights City Public Schools Educational Technology Plan for 2010 – 2015

<http://www.colonialhts.net/Division-Info/Technology-and-Learning/Educational-Technology-Plan/index.html>



Planning for an Effective Educational Technology Program

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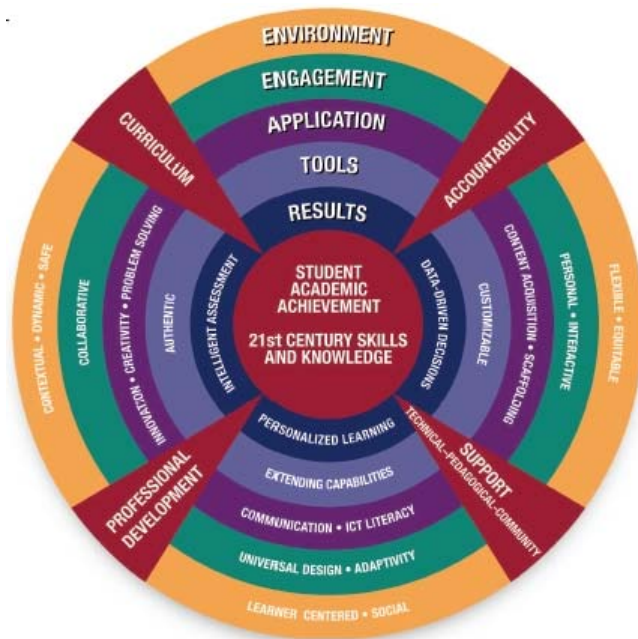
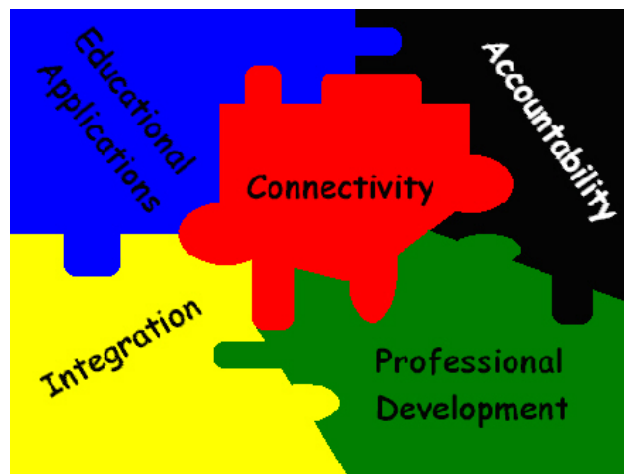
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Vision Statement

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.

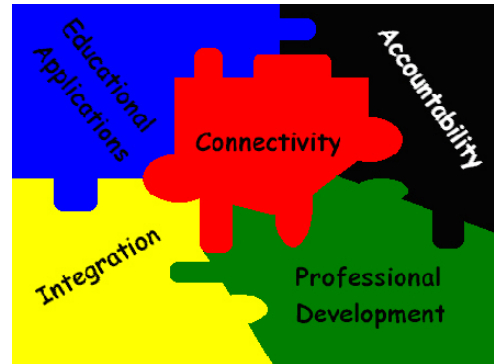
We prepare all students to be successful in an ever-changing technology environment. Our plan of implementation for technology is based on research and best practice as it applies to essential components of a comprehensive educational technology program, in alignment with the state’s framework for educational technology planning.



Technology Plan – Executive Summary

Background

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. That technology plan covered the period 2008 – 2012 and was approved by our School Board on August 26, 2008. The time period was selected to coincide with the school division Comprehensive Plan. This plan covered five broad areas related to technology, and included goals, objectives, and implementation strategies for Technology Integration, Professional Development, Connectivity, Educational Applications, and Accountability. Our technology plan was later found to be in alignment with the Educational Technology Plan for Virginia that was in effect at that time.



Previous state educational technology planning framework
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Alignment with the new Virginia technology planning framework while coinciding with the duration of the school division’s Comprehensive Plan

After the state Board of Education approved a new state Educational Technology Plan for Virginia for 2010-2015, it became necessary to align our school division technology plan with the new conceptual framework in the state’s plan. The new state plan departs from the traditional sense of a technology plan, and serves more as a conceptual framework that permits flexibility in planning for change over time.

The new framework includes the following components:

- Appropriately and adequately designed environment
- Meaningful engagement
- Purposeful application of tools for learning
- Use of authentic technology tools to extend learning capabilities
- Authentic and intelligent assessments



Colonial Heights Public Schools has traditionally found value in the state's previous conceptual framework that involved the five components of Technology Integration, Professional Development, Connectivity, Educational Applications, and Accountability. This framework has served well in providing direction for building a comprehensive and effective educational technology program. The former framework still provides continuing merit for a solid, well structured technology program.

The challenge was to retain the sound goals, objectives, and implementation strategies from our technology plan for 2008-2012, while aligning our technology plan with the new goals in the state's new conceptual framework. After conducting needs assessment and additional stakeholder technology planning and review in 2010, it was found that our previous plan included important goals, objectives, and strategies that could be leveraged to implement the new state conceptual framework.

Needs Assessment and Collaborative Technology Planning Review

A Technology Planning Review Team participated in additional needs assessment related to the new state goals, during November to December of 2010. Stakeholders also worked together during this same time period, working virtually through a Wiki, to develop strategies to meet the new goals. Special focus in this process was on addressing 21st century skills. What followed from this review was an updating of the 2008-2012 technology plan that leveraged the hard work from the previous plan, while formulating strategies for emphasizing 21st century skills in the new technology plan. New goals and objectives were added to meet the new state conceptual framework, and the priorities of the school division.

Duration of the Technology Plan

The time period for this Educational Technology Plan was initially 2010 – 2012 to coincide with the remainder of the school division's comprehensive plan that ran through 2012. The goals and objectives in the technology plan were found to still be pertinent for the period 2013-2015, and the School Board voted unanimously at their November 13, 2013 regular meeting to extend the plan for two additional years, making the technology plan effective for 2010-2015.

Notable Educational Technology Accomplishments Since 2008

The school division has worked hard to achieve progress in educational technology over the past two years. The Colonial Heights Public Schools Educational Technology Plan for 2008 – 2012 was based on the five components of Technology Integration, Professional Development, Connectivity, Educational Applications, and Accountability. The following notable successes are categorized according to these five components, with the previous technology plan goals noted for each.

Connectivity

New fiber optic gigabit WAN

Colonial Heights Public Schools deployed a fiber optic Gigabit Wide Area Network (WAN) that connects our schools together, and to a 50 MBPS high speed Comcast connection to the Internet. The project leveraged the expertise of in-house staff, and used an outside consultant for router configurations. Comcast coordinated the fiber optic construction to all schools and the central office. In terms of technology engineering, there was much required to migrate technologies and systems to the new infrastructure. The school division received an Honorable Mention for this project in the 2010 Governor's Technology Awards.



Construction crew members fill a trench after completing the boring work to install underground conduit at Lakeview.

In order to get competitive bids, the school division submitted an E-Rate Form 470 during the summer of 2009, along with an accompanying RFP for WAN upgrade and Internet access proposals. The competitive bidding process brought in full proposals from several telecommunication companies. The Comcast proposal offered aggressive pricing and was excellent on its technical merits.

This project accomplished Connectivity Goal 1 from the 2008 plan, which sought to “Ensure that all schools have access to integrated instructional and administrative technology services across interoperable high-speed networks” (p. 15). The following were defined objectives for this particular goal:

- We will strive to upgrade the Wide Area Network (WAN) connections at all schools to reliable, high speed, broadband connections.

- 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.
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Educational Applications and Professional Development

New Library Information System

A new division-wide library information system, called *Destiny Library Manager* was deployed during the summer of 2010. Previously our school library circulation and catalog systems were managed through a legacy school-based system called Spectrum that was no longer being updated by the vendor, and was becoming obsolete. The project involved migrating data from the five school library systems to the new division-wide system. To save the library staff from having to manually enter student records into the new system, a Destiny SIF agent was installed to automatically pull enrollment data from Star_Base. Follett provided web-based training for library and technology staff.

This project accomplished Educational Applications Goal 3, which envisioned that “Every school has an up-to-date automated library system for circulation and cataloging of library resources.” (p. 19). The following was defined as an objective/strategy for this particular goal:

- 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

PD 360

Professional Development Goal 3 stated “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” (p. 10). The school division implemented the research-based online professional development program PD 360 that provides multimedia rich content related to the improvement of teaching and learning. School division administrators were the first group to receive training, during the 2009-2010 school year. This web-based system provides practical on-demand professional development for administrators and teachers, and also contributes to implementing Educational Applications Goal 1, which stated “Improve teaching and learning through the appropriate use of network-accessible online or web-based educational applications and resources” (p. 18).

Technology Summer Institute

This summer professional development program has continued to be offered, with the summer of 2010 marking the fifth summer in a row. The program affords the opportunity for teachers and staff to participate in technology integration training sessions on a variety of topics. Our Instructional Technology Integration Specialists serve as the lead instructors and facilitate the program.

Accountability

Parent_Portal Implementation

Parent_Portal is an online system that allows parents to monitor a son or daughter's progress in class, by providing access to student information including grades and school attendance. After smaller pilots of this system to test both it and our procedures, we expanded the program to school-wide implementation at Colonial Heights Middle School and Colonial Heights High School, during the 2009-2010 school year. Teachers utilize the system's electronic gradebook that is integrated with our student information system.

This implementation helped to accomplish Accountability Goal 1, which stated that “The school division will provide an online parent communication system to provide access to grades and certain student records.” (p. 20). The following were defined objectives and strategies for this particular goal:

- 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.

Online SOL Testing at Colonial Heights High School

Previous improvements to technology infrastructure, including school-wide wireless networking, provided the framework for online SOL testing. Monies available from the state under the Web-based Technology Initiative provided assistance in purchasing the computer resources, including the mobile laptop carts that are indispensable for online SOL testing. This implementation helped to accomplish Accountability Goal 2, which stated that “Assess the value that technology adds to teaching and learning environments.” (p. 20). The following was defined as an objective and strategy for this particular goal:

- All high school end-of-course tests will be completed online (Objective 14 from Comprehensive Plan).

School Interoperability Framework, Interactive Reports, and Interactive Achievement

Accountability Goal 3 stated "The school division will provide a student information system and appropriate decision support capabilities for all stakeholders" (p. 20). The objectives and implementation strategies for this goal were as follows:

- The student information system will interface with the state system and the School Interoperability Framework (SIF).
- Information systems will provide comprehensive information about student learning and progress, and provide effective tools for reporting.

- Information systems interface to provide staff members the ability to use appropriate and effective data to make decisions.

School Interoperability Framework (SIF) is a technology that is designed to allow various databases to better interface with each other and exchange data. Edustructures (Pearson) assisted with implementing a SIF Works system in the school division with a vertical connection to the state's Educational Information Management System (EIMS), to obtain Student Testing IDs. We also have a horizontal connection between Star_Base and our new library information system, Destiny Library Manager, which saves library staff time by allowing Destiny to automatically get up-to-date data from Star_Base.

Our student information system Star_Base was enhanced during 2010 when ***Interactive Reports*** was installed, which is designed to make it easier for staff and administrators to run some common reports. Star_Base essentials training was provided for staff and administrators that included an overview of Interactive Reports.

Interactive Achievement was implemented in the school division, which is a powerful benchmark testing software solution that provides educators with accurate formative assessments of student performance on the Virginia Standards of Learning. In addition to the benchmark testing capabilities of Interactive Achievement, the web-based system also features reporting capabilities that allow teachers and administrators to analyze student achievement data, and identify specific areas in which students need help.

Technology Integration

Internet Safety Curriculum Framework

Technology Integration Goal 3 articulated the important goal, “Implement Internet safety instruction that is integrated into the school curriculum” (p. 11). Our Internet Safety Curriculum Committee developed a new framework for teaching Internet safety in grades K-12. This framework provides resources, lesson plans, and guidelines to teachers responsible for teaching these concepts. In November 2010, officials from the FBI presented Lakeview 5th graders with a first place award for achieving the highest score in the nation, in the FBI-SOS Internet Challenge.

Technology Integration Lesson Plans

Goal 6 stated “Promote proper meaningful use of computer labs to support the core curriculum areas (p. 12). Debbie Walwer, our Instructional Technology Integration Specialist - Elementary, has developed lesson plans for teachers to use when classes visit the computer lab. The lesson plans are published on a monthly basis, are correlated to each grade level’s SOL, and align with curriculum framework and pacing guides.

LCD Projectors Installed in Classrooms

Over the last two or three years, limited funding has been a significant constraint for technology initiatives such as installing LCD projectors in classrooms. Technology Integration Goal 2 stated “Promote division-wide equity in the implementation of technology-enhanced teaching and learning (p. 10). The elementary school and administrative needs assessment that was done at the outset of the technology planning process had identified that the top priority for “What We Can Do Better” with technology was “Availability of equipment for all schools needs to be equitable” (p. 23). Despite budget constraints, the Office of Technology and Learning used aggressive pricing, and other cost saving strategies, when making technology purchases in order to make it possible to install a number of LCD projectors in elementary classrooms at our three elementary schools.

Technology Planning Review Process 2010

During the fall of 2010, from November to December, a Technology Planning Review Process was conducted to enlist participation from stakeholders for two important activities. *The review process sought participation for 1) a needs assessment survey, and 2) collaboration in formulating objectives and strategies for new technology plan goals and objectives, to align with the new state conceptual framework.*

Stakeholder Invitations to Participate

Invitations were sent to the following groups of stakeholders:

- Lead Teachers at all Schools
- School Principals and Assistant Principals
- Central Office Instructional Administrators
- Instructional Technology Integration Specialists

Please see p. 41 for Technology Planning Committee for 2008-2012.

Needs Assessment Process

Online Needs Assessment

The review process was conducted during November and December of 2010 by leveraging technology as a strategy, including inviting division-wide needs assessment using Survey Monkey. The online survey sought feedback to help answer the question "What we do well" and "What we can do better" with regard to technology needs. Please see pp. 12-14 for needs assessment data from this process.

Technology Academy

Technology Academy is a professional development program offered by the Office of Technology and Learning that brings together division-wide and school technology staff. The Technology Academy session held on November 18, 2010 included a Forum style needs assessment to help answer the question "What we do well" and "What we can do better" with regard to technology. Please see p. 14 for needs assessment data from this process.

Wiki collaboration to formulate goals

A Wiki was developed that provided a convenient means for stakeholders to collaborate in formulating technology plan strategies, during November and December of 2010. The pbworks.com Wiki was easy to use, and similar to using a word processing application. Sidebar instructions were included with tips for editing the Wiki pages. The collaborative contributions from the Wiki, pertaining to the five goals in the state's new conceptual framework, were compiled in order to guide the development of this technology plan for 2010-2015.

Needs Assessment Data for 2010

DATA FROM ONLINE TECHNOLOGY REVIEW NEEDS ASSESSMENT

Goal 1 states "Provide a safe, flexible, and effective learning environment for all students."

What We Do Well

- Internet Safety Curriculum
- Internet filtering
- Teachers are using computer labs and laptops to enhance instruction
- Older buildings and facilities are well maintained
- Security cameras

What We Can Do Better

- Need to better manage the Internet content filters (there can be excess blocking).
- Not all of the computer labs are kept clean on a frequent basis.
- Need more computer labs available for our students.
- Teachers need more training and access to other technology.
- Media centers and computer labs need to be more accessible to students and staff at all times during the school day.

Goal 2 states, "Engage students in meaningful curricular content through the purposeful and effective use of technology."

What We Do Well

- Students have access to technology on a regular basis.
- Do well with student technology initiatives such as the laptop program for Honors Biology and Honors English, and the GIS class.
- Technology Integration Specialists – Faculty are trained on using technologies and internet to enhance curriculum.
- Teachers are willing to take risks and try new things in their classrooms.
- Educational resources are provided that connect with curriculum.

What We Can Do Better

- Require teachers to have lesson plans with technology integration before using computer labs.
- Need more budget monies allocated to instructional software.
- More technology training is needed for teachers and administrators.
- Staff should be required to attend technology training.
- More teachers should assign projects to students using different technologies and software.

Goal 3 states, "Afford students with opportunities to apply technology effectively to gain knowledge, develop skills, and create and distribute artifacts that reflect their understandings."

What We Do Well

- Technology Summer Institute
- Elementary students are involved in activities for learning technology skills.
- Laptops and SmartBoards/projectors allow the students to engage in the learning process.
- Students are using technology to develop projects and to conduct research.
- Access to computer labs

What We Can Do Better

- Need more opportunities for students to work firsthand with technology.
- Computer science courses need to be added to the curriculum.
- Need more interaction with other classes via technologies.
- More computer labs are needed at elementary schools.
- Need wider availability of SmartBoards, document cameras, and projectors in classrooms.

Goal 4 states, "Provide students with access to authentic and appropriate tools to gain knowledge, develop skills, extend capabilities, and create and disseminate artifacts that demonstrate their understanding."

What We Do Well

- Computer labs are widely available in the school division.
- The students have time to go to the computer labs.
- Mobile laptop carts are available for classroom use.
- High school GIS class with their research and final project
- Access to instructional software and Internet resources

What We Can Do Better

- Wider availability of portable handheld technology is needed.
- Students need instruction in using computers as research and information gathering tools at a younger age than middle school.
- We need to engage our elementary students in more project based activities.
- Mobile laptop carts are needed in elementary schools.
- Teachers can better integrate technology into lessons to model technology use.

Goal 5 states, "Use technology to support a culture of data-driven decision making that relies upon data to evaluate and improve teaching and learning."

What We Do Well

- INTERACTIVE ACHIEVEMENT is utilized for benchmark testing (this was a dominant response).
- Use of clickers with students in classroom.
- We make available online tools such as Moodle, Star_Portal gradebook, and Parent_Portal.
- We do use data to drive our instruction and technology makes accessing this data easier.

What We Can Do Better

- More training is needed in the use of Star_Base for faculty and administrators.
- Make the data more widely available to all.
- Regular use of Interactive Achievement is needed.
- Wider use of online SOL testing is needed.

DATA FROM TECHNOLOGY ACADEMY NEEDS ASSESSMENT

What We Do Well – Top Five

- Gigabit Wide Area Network (WAN) infrastructure
- Technology team is good at working together
- Vast array of instructional software
- School computer support specialists provide accessible support, and there is open access to school computer labs
- Connecting curriculum content with technology

What We Can Do Better – Top Five

- More extensive technology training is needed for all staff, and require all staff to attend technology professional development as part of the staff development process.
- Require teachers to provide instructional activities that integrate technology in core content areas, with appropriate review and evaluation by administrators.
- Improve communication.
- Continue to eliminate any disparities in technology availability between schools.
- Manage Internet content filtering better.

Alignment Matrix for New Conceptual Framework

Goal 1: "Provide a safe, flexible, and effective learning environment for all students."

Virginia Objective 1.1: Deliver appropriate and challenging curricula through face-to-face, blended, and virtual learning environments.

Objectives and Strategies	
<ul style="list-style-type: none"> • Deliver appropriate and challenging curricula through face-to-face, blended, and virtual learning environments. <ul style="list-style-type: none"> ○ A Moodle server will continue to be offered by the school division to provide a learning management system (course management system) that can house instructional materials, and provide online assessment and communication tools. ○ NovaNET will be continue to be provided as the online curriculum platform for the division’s alternative education program, the Community Day School. ○ Online course opportunities for summer school will continue to be offered. 	<p><i>These are also strategies for Educational Applications Goal 1, which states “Improve teaching and learning through the appropriate use of network-accessible online or web-based educational applications and resources.”</i></p>
<ul style="list-style-type: none"> • Leverage virtual learning opportunities available through the school division’s membership in the MathScience Innovation Center consortium. 	
<ul style="list-style-type: none"> • Leverage online course opportunities available from Virtual Virginia. 	

Virginia Objective 1.2: Provide the technical and human infrastructure necessary to support real, blended, and virtual learning environments.

Objectives and Strategies	
<ul style="list-style-type: none"> • Facilitate a fiber optic Gigabit Wide Area Network to every school. <ul style="list-style-type: none"> ○ Accomplished in the 2009-2010 school year (see p. 6). 	<p>Accomplished the objective “We will strive to upgrade the Wide Area Network (WAN) connections at all schools to reliable, high speed, broadband connections” that was defined for Connectivity Goal 1, that stated</p>

	<p>“Ensure that all schools have access to integrated instructional and administrative technology services across interoperable high-speed networks.”</p>
<ul style="list-style-type: none"> • 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. • 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. • School-wide wireless networks will be maintained throughout our high school and middle school buildings to support mobile computing initiatives. • Wireless networking will be implemented in strategic locations in elementary schools to support mobile computing initiatives. 	<p>These are all also objectives noted for Connectivity Goal 2, “Ensure that all schools have access to integrated instructional and administrative technology services across interoperable high-speed networks.”</p>
<ul style="list-style-type: none"> • Maintain technology staffing levels during a time of economic challenges. 	<p>Technology Integration Goal 5 sets as a goal: “Provide sufficient technology support.” This goal included the objectives:</p> <ul style="list-style-type: none"> • “Instructional Technology Integration Specialists will be hired in accordance with Standards of Quality.” • “Provide trained Computer Support Specialists at each school.” <p>Connectivity Goal 2 sets as a goal: “Ensure technology support for ongoing, reliable, and secure network operations, and a satisfactory computer experience for end users.” This goal included the objective: “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.”</p>

Virginia Objective 1.3: Provide high-quality professional development to help educators create, maintain, and work in a variety of learner-centered environments.

- Please refer to the Professional Development section which articulates objectives and strategies for high-quality professional development.
- Implement PD 360 for online and collaborative professional development.

Goal 2: "Engage students in meaningful curricular content through the purposeful and effective use of technology."

Virginia Objective 2.1: Support innovate professional development practices that promote strategic growth for all educators and collaboration with other educators, content experts, and students.

- Please refer to the Professional Development section which articulates objectives and strategies for high-quality professional development.
- Implement PD 360 for online and collaborative professional development.

Virginia Objective 2.2: Actualize the ability of technology to individualize learning and provide equitable opportunities for all learners.

Objectives and Strategies	
<ul style="list-style-type: none"> • Actualize the ability of technology to individualize learning and provide equitable opportunities for all learners. 	<p>Technology Integration Goal 2 states “Promote division-wide equity in the implementation of technology-enhanced teaching and learning.”</p> <p>Objectives articulated for this goal:</p> <ul style="list-style-type: none"> • Educators and students at all schools, secondary and elementary, have equitable access to technology to support instructional goals. • Appropriate technology-based instructional strategies are used for students with unique needs. <p>Strategies defined for these objectives:</p> <ul style="list-style-type: none"> • 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.
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Virginia Objective 2.3: Facilitate the implementation of high-quality Internet safety programs in schools.

Facilitate the implementation of high-quality Internet safety programs in schools.	Technology Integration Goal 3 states “Implement Internet safety instruction that is integrated into the school curriculum in all Colonial Heights Public Schools.
Please see the heading <i>Internet Safety Curriculum Framework</i> in the section of this document <i>Notable Educational Technology Accomplishments Since 2008</i> .	

Goal 3: "Afford students with opportunities to apply technology effectively to gain knowledge, develop skills, and create and distribute artifacts that reflect their understandings."

Virginia Objective 3.1: Provide and support professional development that increases the capacity of teachers to design and facilitate meaningful learning experiences, thereby encouraging students to create, problem-solve, communicate, collaborate, and use real-world skills by applying technology purposefully.

- Please refer to the Professional Development section which articulates objectives and strategies for high-quality professional development.

Virginia Objective 3.2: Ensure that students, teachers, and administrators are ICT literate.

Objectives	
<ul style="list-style-type: none"> • Improve teaching and learning through the appropriate use of technology, by ensuring that students, teachers, and administrators are ICT literate. 	<p>Technology Integration Goal 1 states “Improve teaching and learning through the appropriate use of technology.”</p> <p>Objectives articulated for this goal:</p> <ul style="list-style-type: none"> • All instructional staff members must be technology literate according to state standards. • Principals and administrators will evaluate and encourage effective instructional use of educational technology. • 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. • Students will routinely use technology in a variety of learning activities across the curriculum, and demonstrate

	<p>achievement with the state Computer Technology Standards of Learning.</p> <ul style="list-style-type: none"> • Technology will be used to measure and analyze student achievement levels with tools provided by the school division.
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Virginia Objective 3.3: Implement technology-based formative assessments that produce further growth in content knowledge and skills development.

Objectives	
<ul style="list-style-type: none"> • Implement technology-based formative assessments that produce further growth in content knowledge and skills development. <ul style="list-style-type: none"> ○ Educational applications that are packaged as part of textbook adoptions will be installed and implemented for instruction and assessment. ○ Other network-accessible educational applications will be implemented that can assist teachers with student achievement. <ul style="list-style-type: none"> ▪ Continue to emphasize the use of INTERACTIVE ACHIEVEMENT in the school division. 	<p>Educational Applications Goal 1 “Improve teaching and learning through the appropriate use of network-accessible online or web-based educational applications and resources.”</p> <p>Objectives articulated for this goal:</p> <ul style="list-style-type: none"> • Educational applications that are packaged as part of textbook adoptions will be installed and implemented for instruction and assessment. • Other network-accessible educational applications will be implemented that can assist teachers with student achievement. <p>Strategies defined for these objectives:</p> <ul style="list-style-type: none"> • 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 • Educational applications such as Accelerated Reader and Star Reader will continue to be offered on school networks and computers.

Goal 4: "Provide students with access to authentic and appropriate tools to gain knowledge, develop skills, extend capabilities, and create and disseminate artifacts that demonstrate their understanding."

Virginia Objective 4.1: Provide tools that extend students’ capabilities, can be customized to meet individual needs and preferences, and support learning.

Objectives and Strategies	
<ul style="list-style-type: none"> Provide tools that extend students’ capabilities, can be customized to meet individual needs and preferences, and support learning. 	<p>Technology Integration Goal 1 states, “Improve teaching and learning through the appropriate use of technology.”</p> <p>Objectives articulated for this goal:</p> <ul style="list-style-type: none"> A comprehensive laptop program for students and teachers will be implemented at Colonial Heights High School (Objective 9 from Comprehensive Plan).

Virginia Objective 4.2: Provide technical and pedagogical support to ensure that students, teachers, and administrators can effectively access and use technology tools.

Objectives and Strategies	
<ul style="list-style-type: none"> Provide technical and pedagogical support to ensure that students, teachers, and administrators can effectively access and use technology tools. 	<p>Connectivity Goal 2 sets as a goal: “Ensure technology support for ongoing, reliable, and secure network operations, and a satisfactory computer experience for end users.” This goal included the objectives:</p> <ul style="list-style-type: none"> 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. 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. Technology Academy will be continue

	<p>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.</p> <ul style="list-style-type: none"> • Technology support technicians will hold meetings and training sessions with school computer support staff for sharing of information, training and team building. • The Technology Integration Specialists will maintain a Moodle site dedicated to sharing information and tips relevant to technology support and technology integration. • Funding will be provided to assist technology support staff and school technology paraprofessionals with training needs. <p>Technology Integration Goal 5 sets as a goal: “Provide sufficient technology support.” This goal included the objectives:</p> <ul style="list-style-type: none"> • Instructional Technology Integration Specialists will be hired in accordance with Standards of Quality. • Provide trained Computer Support Specialists at each school. <p>Professional Development Goal 1 sets as a goal: “Additional time will be provided for Professional Development training in technology integration.” This goal included the objectives:</p> <ul style="list-style-type: none"> • 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. • Instructional Technology Integration Specialists will be hired in accordance
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	<p>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.</p> <ul style="list-style-type: none"> • 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. • The number of elementary teachers to attend the Technology Summer Institute will increase by 10 % each year of the plan. • Additional funding will be provided to expand the existing Technology Summer Institute sessions as the need is identified. • Over the time period of this plan, we will seek to provide monetary incentives for participation in Technology Summer Institute sessions. • During a new teacher mentoring meeting, new staff will be introduced to our technology resources.
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Virginia Objective 4.3: Identify and disseminate information and resources that assist educators in selecting authentic and appropriate tools for all grade levels and curricular areas.

Objectives and Strategies	
<ul style="list-style-type: none"> • Identify and disseminate information and resources that assist educators in selecting authentic and appropriate tools for all grade levels and curricular areas. <ul style="list-style-type: none"> ○ Develop elementary lesson plan ideas for teachers to use when classes visit the computer lab. Publish the lesson plans on a monthly basis, correlated to each grade level’s SOL, that are aligned with curriculum 	<p>Technology Integration Goal 6 states “Promote proper meaningful use of computer labs to support the core curriculum areas.”</p> <p>Objectives articulated for this goal:</p> <ul style="list-style-type: none"> • Teachers will model appropriate use of computers while supervising students in the computer lab. • Teachers will plan computer lab activities that support lessons in Math,

<p>framework and pacing guides.</p> <ul style="list-style-type: none"> ▪ Debbie Walwer, the Elementary Technology Integration Specialist, is doing this monthly. ▪ Debbiel Walwer maintains Portaportals to provide web sites that can be used for teaching and learning for grades K-5. <ul style="list-style-type: none"> ○ Publish a Moodle site and website for secondary technology integration information and resources. <ul style="list-style-type: none"> ▪ Buddy Palatiere, the Secondary Technology Integration Specialist, maintains these sites. ○ Buddy Palatiere communicates a Tech Tip of the Week to faculty and staff. 	<p>Language Arts, Social Studies and Science.</p> <p>Strategies defined for these objectives:</p> <ul style="list-style-type: none"> • Teachers will include activities that integrate computer lab resources and related technology in their lesson plans.
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Goal 5: "Use technology to support a culture of data-driven decision making that relies upon data to evaluate and improve teaching and learning."

This state goal corresponds to Accountability Goal 6 which states, “Use technology to support a culture of data-driven decision making that relies upon data to evaluate and improve teaching and learning.”

Virginia Objective 5.1: Use data to inform and adjust technical, pedagogical, and financial support.

Objectives	
<p>Use data to inform and adjust technical, pedagogical, and financial support.</p>	<p>Accountability Goal 1 states “The school division will provide an online parent communication system to provide access to grades and certain student records.”</p> <p>Accountability Goal 6 states “Use technology to support a culture of data-driven decision making that relies upon data to evaluate and improve teaching and learning.”</p> <p>Objectives under Accountability Goal 6</p>

	<p>include:</p> <ol style="list-style-type: none"> 1. Implement Interactive Reports into Star_Base, to make it easier for staff and administrators to run common student information system reports. 2. Explore solutions for improving the school division’s financial systems by migrating from Accura to a more capable information system with better reporting and decision making capabilities for finance and business. 3. Improve pedagogical decision making by implementing Interactive Achievement for benchmark testing.
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Virginia Objective 5.2: Provide support to help teachers disaggregate, interpret, and use data to plan, improve, and differentiate instruction.

Objectives	
<p>Provide support to help teachers disaggregate, interpret, and use data to plan, improve, and differentiate instruction.</p>	<p>Accountability Goal 6 states “Use technology to support a culture of data-driven decision making that relies upon data to evaluate and improve teaching and learning.”</p> <p>Objectives under Accountability Goal 6 include:</p> <ol style="list-style-type: none"> 1. Provide professional development for administrators to assist them in using Star_Base for data-driven decision making. 2. Provide professional development to help teachers use Interactive Achievement to improve classroom instruction. 3. Provide professional development to administrators to assist them in providing leadership for using Interactive Achievement to improve classroom instruction. <p>Accountability Goal 3 states “The school division will provide a student information system and appropriate decision support capabilities for all stakeholders.”</p>

	<p>This includes the objective:</p> <ul style="list-style-type: none"> • Colonial Heights City Schools will participate in the VDOE LDS grant consortium “Leveraging Time, Talent, and Technology” with other school divisions to develop a business intelligence tool and training on that tool to effectively link together data on teachers and students into local Data Warehouse / Extract Staging Areas (DWESA).
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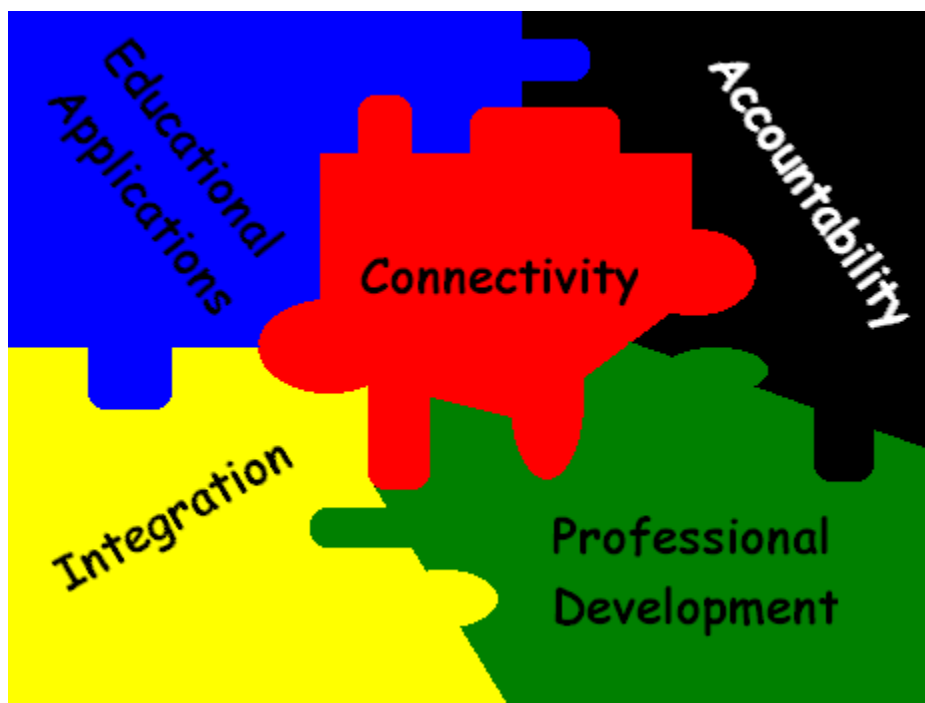
Virginia Objective 5.3: Promote the use of technology to inform the design and implementation of next generation standardized assessments.

Objectives	
<p>Promote the use of technology to inform the design and implementation of next generation standardized assessments.</p>	<p>Accountability Goal 3 states “The school division will provide a student information system and appropriate decision support capabilities for all stakeholders.”</p> <p>Objectives and strategies defined for this goal include:</p> <ol style="list-style-type: none"> 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 a School Interoperability Framework (SIF) system. 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. 5. Colonial Heights City Schools will participate in the VDOE LDS grant consortium “Leveraging Time, Talent, and Technology” with other school

	divisions to develop a business intelligence tool and training on that tool to effectively link together data on teachers and students into local Data Warehouse / Extract Staging Areas (DWESA).
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Technology Planning Colonial Heights City Public Schools

Planning for the Five Main Components of Our Educational Technology Plan



Copyright Colonial Heights City Public Schools

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.

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.

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.

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.

Connectivity

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

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.

Educational Applications

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

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.

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.

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

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

7. The student information system will interface with the state system and a School Interoperability Framework (SIF) system.
8. Information systems will provide comprehensive information about student learning and progress, and provide effective tools for reporting.
9. Information systems interface to provide staff members the ability to use appropriate and effective data to make decisions.
10. Colonial Heights City Schools will participate in the VDOE LDS grant consortium “Leveraging Time, Talent, and Technology” with other school divisions to develop a business intelligence tool and training on that tool to effectively link together data on teachers and students into local Data Warehouse / Extract Staging Areas (DWESA).

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.

Goal 6

Use technology to support a culture of data-driven decision making that relies upon data to evaluate and improve teaching and learning.

Objectives and Implementation Strategies

4. Implement Interactive Reports into Star_Base, to make it easier for staff and administrators to run common student information system reports.
5. Provide professional development for administrators to assist them in using Star_Base for data-driven decision making.
6. Explore solutions for improving the school division's financial systems by migrating from Accura to a more capable information system with better reporting and decision making capabilities for finance and business.
7. Improve pedagogical decision making by implementing Interactive Achievement for benchmark testing.
8. Provide professional development to help teachers use Interactive Achievement to improve classroom instruction.
9. Provide professional development to administrators to assist them in providing leadership for using Interactive Achievement to improve classroom instruction.

Technology Planning Committee 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 from the School Community Forum process conducted by the School Board

Colonial Heights Technology Planning Committee Forum April 10, 2008

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

What Do We Do Well?

Items submitted by participants	Votes
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 SOL testing	3
6. Opportunity to attend conferences, EdTech and VSTE	2
7. Support by technology personnel is available when needed	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

What Do We Can Do Better

Items submitted by participants	Votes
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 schools and Middle school	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 school computer labs needs study – improvement/schedules need to be studied	0
16. Users need to adopt a risk-taking attitude, try something new	0

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

What Do We Do Well?

Items submitted by participants	Votes
1. Technology staff are willing to support/research new technologies, i.e.: Moodle, email, Star_Portal, SmartBoards	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 technology support staff willing to help	4
5. Provide support peripherals, i.e.: SmartBoards, projectors, software	4
6. Provide staff development opportunities especially the Technology Summer Institute	3
7. Our schools provide a meaningful tech experience for students	3
8. Focus on upgrading/reevaluating the existing software/hardware	3

What We Can Do Better

Items submitted by participants	Votes
1. Provide greater access to technology for our students (need more computer labs)	11
2. Need to have additional support staff: need more ITRTs, school computer specialists, and division-wide technicians to help with increasing numbers of computers and technology utilization	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 Technology 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

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

Items submitted by participants	Votes
1. Need to have additional support staff: need more ITRTs, school computer specialists, and division-wide technicians to help with increasing numbers of computers and technology utilization	14
2. Provide greater access to technology for our students (need more computer labs)	11
3. Communicate the upgrade process for new software and hardware	11
4. Availability of technology equipment for all schools needs to be equitable (equitable use of funds for projections systems, COWs)	9
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, learning time and integration time. Would like to see more in-service days during school, more Technology Summer Institute Days, more New Teacher Training	4
8. Need monitoring software for labs and Media Centers	4
9. Better communication among grade levels/schools needs to	3
10. be improved, increase opportunities for sharing	
11. Licensed teachers in the computer labs	2
12. Laptops for elementary teachers	2
13. Increase use of technology for teaching and learning	2
14. Faster broadband connection to Elementary schools and Middle school	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

What We Do Well (Groups 1 and 2 combined)

Items submitted by participants	Votes
1. Technology staff are willing to support/research new technologies	11
2. Technology resources, software, etc. are provided to schools/Technology is accessible	11
3. Teachers are willing to adapt to changing technologies	10
4. Technology Summer Institute, technology professional development is provided	8
5. Integration Specialists are helpful in providing support, instruction, and leadership in integrating technology into instruction	7
6. Have tech support staff willing to help/Support is available when needed	7
7. Technology use is encouraged	6
8. Teachers and staff integrate the resources (technologies) we do have	5
9. Provide technology peripherals, i.e.: Smart Boards, projectors, software	4
10. Our schools provide a meaningful tech experience for students	3
11. Focus on upgrading/reevaluating the existing software/hardware	3
12. Expansion of online SOL testing	3
13. Communication, email is good, works well	2
14. Opportunity to attend conferences, EdTech and VSTE	2
15. Harcourt Math software	2
16. Faculty laptop initiative at the secondary level	1
17. Every elementary grade level has a computer on wheels	0
18. Increased budget funds are evident by the purchase of equipment	0
19. and software	0
20. SmartBoards are in place	0
21. Reading software (Harcourt electronic testing)	0

Technology Evaluation

Evaluation within the Office of Technology and Learning

- The Director of Technology and Learning reviews progress on implementing the technology plan on an ongoing basis. The technology plan provides guidance for annual technology budgeting, procurement, professional development, instructional technology integration, technology support, project management, and long term strategic planning. This requires literally that a technology plan not sit on a shelf, but rather be an essential information resource for the ongoing process of prudent, reflective, and proactive leadership.
- The Director of Technology consults with Technology and Learning staff on an ongoing basis to discuss our progress in implementing the technology plan.

Notable Educational Technology Accomplishments Since 2008

- A summary of notable technology plan accomplishments is provided on pp. 6-10 of this document. It is important to pause and evaluate not only challenges or deficiencies in implementing technology plan goals and objectives, but also to celebrate and note successes.

Evaluation of technology needs during the AdvancEd Accreditation Review and Assessment Process

- During the 2008-2009 school year, our schools came together to work in teams to engage in a division-wide evaluation of seven standards identified by the AdvancEd Accreditation Commission. While this self study did not focus on technology, evaluating technology needs was included in this review process. The school division's self study process identified that improving technology infrastructure was a critical need. The School Board approved monies for an infrastructure upgrade, and a fiber optic Gigabit Wide Area Network was constructed during the 2009-2010 school year, after an RFP was posted during the summer of 2009. Please see the section of this document entitled *Notable Educational Technology Accomplishments Since 2008* for more information.
- An external team of independent reviewers from AdvancEd visited our schools during the 2009-2010 school year, and interviewed representatives from all stakeholder groups including parents, students, teachers, staff, and administrators. Our school division met all standards for District Accreditation. One of the recommendations of the AdvancEd team was "Establish and implement, across the district, uniform and consistent expectations that support the utilization of technology for classroom instruction and communication with stakeholders." This recommendation aligns well with objectives from our technology plan.

Needs Assessment from Technology Planning Committee and Review Team, and Technology Academy

- Formal technology needs assessments were conducted in 2008 (see pp. 36-41) and 2010 (see pp. 11-14). The Technology Planning Committee met during April and May of 2008, and the Technology Review Team met virtually during November and December of 2010 (see p. 11 for process).

Technology Related Needs Assessment Data from School Community Forums

- The Superintendent and School Board coordinate a school community form process to invite parents and community members to contribute feedback and recommendations concerning what a school does well, and what it can do better. While this process does not focus on technology, the data from the community forum process is considered in evaluating any technology needs or concerns expressed by stakeholders. The most recent community forum was March 2, 2010 at Lakeview Elementary School.



Internet Safety Curriculum Evaluation

- The Internet Safety Curriculum was evaluated after the 2010-2011 school year. Please see the attached document Internet Safety Curriculum Evaluation.

Appendix 1: Fiscal Analysis for City of Colonial Heights Public Schools Educational Technology Plan

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 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 meeting middle school needs. 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.

Timetable for Online SOL Testing

The school division is already conducting online SOL testing on a school-wide basis at Colonial Heights High School, and has begun shifting SOL testing from paper and pencil to online at Colonial Heights Middle School. All SOL tests at Colonial Heights Middle School will be conducted online during the spring of 2011. During the 2011-2012 school year, all SOL tests will be conducted online at Lakeview Elementary School and North Elementary School.

We have worked hard to maintain a reasonable refresh life cycle for school computers, although budget challenges typically extend the life cycle of desktop computers to six or seven years, and laptops to five or six years, depending upon the circumstances or usage. A major proposed technology budget item for 2011-2012 involves implementing enough mobile laptop carts at

elementary schools, in order to have sufficient computer resources to begin conducting online SOL testing at elementary schools during the 2011-2012 school year.

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.