

Winchester Public Schools  
Technology Plan  
2016-2018



Winchester Public Schools  
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## Executive Summary

Winchester Public Schools believes that the effective use of existing and emerging technologies is essential to create a learning community that empowers students and staff members to access, analyze, apply, and communicate information effectively so they are successful in teaching and learning, in managing resources, to effectively function in our constantly evolving society. To do this, a wide variety of technology-integrated tools and resources must be readily available, and students, teachers, and staff members must be well trained to select and use these tools effectively.

This plan follows the format and aligns with the VDOE issued Educational Technology Plan for Virginia 2010-2015 and the 2015-2017 Addendum and addresses goals in the following five key areas: environment, engagement, application, tools, and results. Each of these areas provide for specific action and evaluation strategies to guide the school system in using technology to improve teaching and learning. Areas receiving new or renewed focus over the next few years include the continued expansion and upgrade to our wired and wireless infrastructure as we design and build out a more robust and dense network with improved coverage and bandwidth. During the 2014-2015 school year we completed a successful migration as a district to Google Apps for Education, which has introduced an array of exciting and new cloud based collaborative resources to our students and staff. Beginning in the fall of 2015 we launched our 1:1 Digital Learning Initiative by providing Chromebooks to every 6<sup>th</sup> and 7<sup>th</sup> grade student. We have implementation plans in place to continue that digital device distribution throughout the next several years as we fully implement a 1:1 initiative from grades 5-12. In preparation for the 1:1 initiative we also provided Chromebooks to every teacher and provided each of them focused professional development and training. All of our Technology Resource Teachers and Technical staff have received their Google Certified Instructor Certifications and we have assisted with hosting training for almost 40 additional teachers to become certified. As we near the opening of our new elementary school in the fall of 2016 technology staff have been actively involved in all facets of the design, planning, build-out and upcoming implementation from the technology perspective to provide a state of the art learning environment. Training continues to be a primary focus and we continue to provide a variety of offerings in multiple focus areas. We also continue to offer training opportunities at different times and through different avenues to encourage and accommodate as many opportunities as possible, however finding sufficient time has been a challenge. We continue to participate in the VA Star program, through which the Winchester Education Foundation provides a way for our CTE students to place computers into the hands of needy families in our community. A three hour graduate course in technology integration continues to be offered by our technology resource teachers. The use of data to evaluate, modify, and differentiate instruction – and eventually to evaluate staff – is becoming increasingly important. We will be doing more research and piloting of open educational resources. We are thankful for the states partnership with Copeia on development of an online digital textbook and instructional material marketplace and we will be researching ways in which to implement these resources into our classrooms. An ever increasing use of social media platforms, such as Facebook and Twitter, as well as the launch of our GO WPS! Mobile app has dramatically improved our ability to communicate effectively and efficiently with our diverse school community.

For the past three decades Winchester Public Schools has worked to integrate the presence and power of technology into classrooms and offices in an effort to improve teaching, learning, and administrative productivity and efficiency. This plan outlines goals, objectives and strategies that will continue providing the tools, training and resources necessary to provide 21<sup>st</sup> century skills and knowledge allowing Winchester Public Schools to reach its vision of “Learning for All”.

## **Introduction to the Winchester Public Schools Technology Plan for 2016-18** (updated from 2014-2016 plan)

*“Twenty-first century learning, and the technology that supports it, is a broad concept—actually, much too broad—requiring us to rethink every aspect of our education system. It demands more than teaching students to be problem solvers and effective collaborators. It entails tough, broader questions, like how do we make room for 21st century skills in the current curriculum? What, if anything, can we throw out and still ensure that students have the knowledge and skills they need to succeed? We must look critically at our pedagogy and how we can move to more active learning in student-centered classrooms. How can we build reliable, valid, and useful assessment systems that meet accountability needs and ensure that all children receive a customized education reflecting their personal learning styles, needs, and interests? Confined to the current school day, schools cannot guarantee students will acquire 21st century skills and knowledge; consequently, we need to reconceptualize school more generally as a place and time for learning.”*

-2015-2017 Addendum to the Educational Technology Plan for Virginia

We are tasked with asking ourselves questions like these each day as we plan for building the framework that will ultimately define the steps that every student will take in their journey to graduate career and college ready. As evidenced in this technology plan, the Winchester Public Schools Technology Department, in collaboration with division staff, provide and support the services, tools and resources that support the mission and vision of Winchester Public Schools. The 2016-18 Update to the Winchester Public Schools Technology Plan for 2014-16 extends the current plan for two additional years. The current plan follows the State Educational Technology Plan 2010-2015 as defined by the Virginia Department of Technology. This update is created in preparation for a new statewide plan that will be aligned with the next Virginia Board of Education Comprehensive Plan.

This updated technology plan covers an updated timeline of continuing and new goals, objectives, strategies, and evaluative metrics. As defined by the guidelines in the 2015-2017 Addendum for the State Educational Technology Plan the WPS Technology Plan 2016-2018 continues to follow the existing strategies.

# Planning Process

## WPS Mission Statement

The mission of Winchester Public Schools, a vibrant and diverse community of learners, is to have the courage and commitment to inspire every student's passion for excellence in learning.

This will be accomplished through:

- innovative and engaging instruction,
- preparation and empowerment of students

Provided by:

- a highly qualified and dedicated staff,
- committed families, and
- dynamic community partnerships

## Technology Mission Statement

We believe that the effective use of existing and emerging technologies is essential to create a learning community that empowers students and staff members to access, analyze, apply, and communicate information effectively so they are successful in teaching and learning, managing resources, and effectively functioning in our constantly evolving technological society. Technology should be seamlessly and appropriately integrated into classrooms and offices and supported by a strong in-service and technical support program.

## Current Status of Technology in Winchester Public Schools

The daily lives of students, educators, and administrators have been immensely affected by the power and prevalence of technology, and Winchester Public Schools has the equipment, infrastructure, and personnel in place to offer a twenty-first century education. Students access the Internet and an abundance of online learning resources on desktop computers, laptops, Chromebooks and mobile tablets such as iPads at a local area network connection rate up to 1GB. Each day, teachers create student-centered lessons which integrate technology. Technology provides a very powerful platform for educators to share best practices and reflect on effective strategies and materials. Teachers monitor students' progress using electronic common formative and summative assessments, which are frequently integrated dynamically into the lessons through online resources and apps. Administrators have real-time access to student data to monitor the learning environment and effectiveness of current instructional programs within their schools.

The number of student-accessible computers has increased considerably with the addition of iPads and mobile wireless labs at all schools. We are in our inaugural year of

our 1:1 Digital Learning Initiative providing students with Chromebooks and a plethora of cloud based digital learning resources. While all schools have some degree of wireless access, we are in the initial phase of a multi-year wireless expansion and upgrade that will provide students and staff with an enterprise class wireless infrastructure with much improved density and coverage. This wireless network project will better support the increasing number of wireless devices that bring technology into, not only the classrooms, but into the hands of every student. In stride with the wireless network project we are also in the second year of a multi-year initiative to upgrade the switching and routing infrastructure to provide a more robust and effective voice and data network capable of delivering a 1GB connection to endpoint devices and providing power over Ethernet to our wireless access points. Access to the Internet has recently been improved as we upgraded our broadband circuit capacity to 300MB. In the fall of 2015 we migrated to a new state of the art 1GB fiber-optic WAN connecting all of our division school buildings. This new WAN circuit is easily upgraded to 10GB for future expansion and while increasing capacity and performance it was also acquired at a cost savings. Interactive white boards are now available in every classroom, and peripheral equipment such as document cameras and personnel response systems are available to all teachers. In the Fall of 2015 we launched a state of the art planetarium at our high school and plan to incorporate use of this tremendous asset into our curriculum in the upcoming school year. We continue to support a fully secured BYOD initiative at our high school. Efforts are on-going to increase CTE course offering, which are often technology based, and increase the number of students receiving industry certifications. In fact, in the Fall of 2015 John Handley High School was awarded as a winner of TechTober TestFest for having the highest percentage of Microsoft certifications grouped by the Virginia High School League classifications for 4A, with 52 certifications earned. In the summer of 2016 our high school will host the regional Summer Cyber Security Camp, helping us build the interest and knowledge in the future leaders of our cyber security workforce. Also, in association with our high school we are in the early phases of designing and planning for a potential Career and Technical Center of Innovation, a space that has an amazing amount of potential to propel students into technical, medical and engineering related fields.

With the seemingly never ending expansion of technology, the personnel required to meet the demand is increasing. The WPS technology department now consists of the director of technology, one supervising network engineer, two network engineers, three computer technicians, four instructional technology resource teachers (ITRTs) serving six schools, one coordinator of instructional technology and testing, one webmaster/programmer/administrative assistant, and one student information system specialist. Additional technology support personnel have been requested in the 2016-2017 budget to enable the Technology department to be able to continue effectively supporting the growing array of hardware and software initiatives that we continue to put into place.

The use of web-based applications has increased on the administrative and instructional side, empowering students, teachers, and parents. For example, to ensure school computers and other equipment are operating efficiently, an online work order system tracks all repairs requested and performed. As we experience an upsurge in the incidents

of just-in-time training provided by TRTs to teachers, staff, and administrators, our Instructional Technology Training Activity System tracks topics, instructional time, and location. To administer and evaluate student assessments, educators use Interactive Achievement, a web based program that allows them to use student data to drive instructional decisions. Beginning in Kindergarten with literacy programs and continuing through high school with resources such as Read180 and Google Classroom, students use networked and online sites for instructional resources across the curriculum. For schools using the electronic gradebook parents can access their children's grades and assignments online via the parent portal and mobile app provided from the PowerSchool student information system.

As in the past years, some challenges that we regularly face are 1) ensuring that we are helping to develop appropriate digital citizens 2) ensuring that our students are competent users of technology 3) coordinating and scheduling the necessary time to provide the training and support teachers require to seamlessly integrate technology in their classrooms by using all available data and technological resources to plan and adjust instructional practices accordingly.

In keeping with the foundational thought of establishing effective communication avenues between the school division and the community as defined by our division Strategic Plan, WPS continues to increase use of social media platforms, such as Facebook and Twitter, as well as our GO WPS! mobile app to effectively and efficiently deliver important news, alerts, and other information to our diverse school community.

### **The Technology Plan's Mission Support**

The 2016-2018 Technology Plan fully supports the Winchester Public Schools mission. All students, teachers, and staff members in every classroom and office should have access to the most appropriate tools to accomplish a given instructional or administrative task. The plan provides a means to assist in making technology an integral part of the instructional and managerial processes occurring in each classroom and office on a daily basis. The plan also provides the means to ensure students will effectively use technology to access and assess information, communicate, apply knowledge, and foster creativity and innovation. The plan is aligned with the Virginia Educational Technology Plan.

### **Committee Members (Plan 2011-15)**

Julie Baker, Librarian, Daniel Morgan Middle School  
Pat Burslem, Community Member  
Heather Campbell, Teacher, Frederick Douglass Elementary School  
James Gowdy, Teacher, John Handley High School  
Pam Hedrick, Technology Support Specialist  
W. Scott Hicks, Supervising Network Engineer  
Anita Jenkins, Principal, John Kerr Elementary School  
Robert Jones, Technology Resource Teacher, Elementary Schools

Doug Joyner, Principal, John Handley High School  
Buffie Kulton, Technology Resource Teacher, Elementary Schools  
Dr. Ricky L. Leonard, Superintendent  
Jennifer Licklider, Technology Resource Teacher, Daniel Morgan Middle School  
Steve Muller, Director of Technology  
Penny Oravec, Technology Resource Teacher, John Handley High School  
Kathy Wetsel, Lead Teacher, Daniel Morgan Middle School  
Betty Wymer, Teacher, Virginia Avenue-Charlotte DeHart Elementary School

#### **Committee Members (Plan Update 2014-16)**

Robert Jones, Technology Resource Teacher, Elementary Schools  
Buffie Kulton, Technology Resource Teacher, Elementary Schools  
Penny Oravec, Technology Resource Teacher, John Handley High School  
Jennifer Licklider, Technology Resource Teacher, Daniel Morgan Middle School  
Steve Muller, Director of Technology

#### **2014-2016 Plan Update Development Schedule**

##### **Spring of 2014**

- Review of the 2011-2015 WPS Technology Plan.
- Assign planning group members to the focus areas of environment, engagement, application, tools, and results.
- Conduct formal and informal meetings with stakeholders.
- Update plan, submit the update for school board approval

#### **Committee Members (Plan Update 2016-2018)**

Robert Jones, Technology Resource Teacher, Elementary Schools  
Buffie Kulton, Technology Resource Teacher, Elementary Schools  
Erica Rzucidlo, Technology Resource Teacher, Elementary Schools  
Penny Oravec, Technology Resource Teacher, John Handley High School  
Jennifer Ramsey, Technology Resource Teacher, Daniel Morgan Middle School  
Chris Newman, Coordinator of Instructional Technology and Testing  
William Clements, Supervising Network Engineer  
Aaron McBride, Director of Technology

#### **2016-2018 Plan Update Development Schedule**

##### **Fall of 2015/Sprint of 2016**

- Review of the 2014-2016 WPS Technology Plan
- Review of the 2010-2015 Education Technology Plan for Virginia
- Review of the 2015-2017 Education Technology Plan Addendum
- Assign committee members key areas of focus for revision and update of timeline of continuing and new goals, objectives, strategies, and evaluative metrics.
- Update plan, submit the revised plan for School Board approval

#### **Benchmarks:**

- Update the superintendent of all progress on the plan and recommended revisions to the plan's objectives and strategies.
- Regularly include technology implementation costs in the school system budget as part of the budget preparation cycle.
- Regularly as major revisions are made; post a digital copy on the Winchester Public Schools web site.
- Regularly refer to the timeline/budget in Appendix 1 and 2 for adjustments in budgets and deadlines.
- Survey staff regarding attainment of the goals of the plan and revise as indicated. Provide training, hardware, and software as needed.

## Needs Assessment Summary

WPS conducted a needs assessment which focused on the areas of environment, engagement, application, tools, and assessment. One hundred and fifty one teachers from elementary, middle, and high school levels responded to the online survey. More recent assessments stress the need for more mobile technology and the need to insure that students have technology readily available to them throughout the school day and beyond. Initial survey results are shown below.

### Environment

- 82% have the hardware needed to successfully integrate technology.
- 80% have the software and online resources to effectively use technology for teaching and learning.
- 27% of teachers report having no barriers to integrate technology.
- 38% report the greatest barrier to integration is the amount of time required for lesson preparation.

### Engagement

- 89% agree that it is important for students to actively use technology in learning.
- 93% report their students are motivated by the use of technology.
- 68% report their students use technology to acquire basic skills.
- 52% report their students use technology to construct new knowledge.

### Application

Teachers reported how students use technology in their classrooms:

Student Activity	School Level		
	Elem	Middle	High
To plan, draft, proofread, revise, and publish written text	28%	60%	61%
To practice basic skills	95%	73%	69%
To remediate basic skills	90%	65%	63%
To compensate for a disability or limitation	35%	57%	50%
To support individualized instruction	72%	60%	66%
To assess student progress	52%	55%	55%
To organize and store information	41%	52%	52%
To collect data and perform measurements	38%	44%	50%
To manipulate/analyze/interpret data	27%	47%	41%
To create visual representations	62%	76%	66%
To perform calculations	22%	31%	36%
To create models or simulations	27%	29%	25%

### Tools

- 18% report needing more in-class support to integrate effectively.

- Training on specific applications, such as Excel or Smart Notebook, is still requested by teachers, as is professional development in the integration of technology in the content areas.
- 60% of elementary teachers have used the WPS Student Profile Database and the WPS Curriculum Wiki to assist in selecting appropriate tools.

## Assessment

- 79 % of responding teachers evaluate their students' formal assessment results.
- 75% adapt their instructional methods based upon results of the formal assessments.
- A follow-up, open ended survey was developed and administered to provide more precise details to some of the responses. Although this follow-up survey was sent to all faculty members, it was directed to only to those who responded as needing more hardware or software to facilitate teaching, or needing training on specific assessment tools.

## Conclusions

Environment: Most teachers believe they have the equipment in their classrooms and in their schools to support the technology plan. Most teachers believe they have received the professional development required to support the plan. Many request on-going training in emerging technologies. The most prominent barrier to technology integration is the amount of time required for lesson preparation. Comments and requests included:

- Hardware: document cameras, wireless access in all classrooms in all schools.
- Software requests: simple web-hosting site for elementary schools, expanded video library and resource sites, Google Docs, and protected blogs such as Edublog and ThinkQuest.
- More support needed from administration to ensure Internet safety goals are met.

Engagement: Near unanimous is the belief that students should actively use technology in education. Teachers practice this belief in reporting that students do actively use technology to acquire basic skills, to construct new knowledge, and to solve real-life problems. The launch of the 1:1 Digital Learning Initiative further illustrates that equitable available resources increases student engagement and their ability to become content creators.

Application: At the elementary level, math is the area found to be easiest to integrate; language arts the most difficult. More professional development in this area is indicated. The needs assessment data reveals students' use of technology for revision and publishing increases from elementary school through high school, as does the use of technology to perform calculations and collect and perform measurements. The use of technology for practicing basic skills decreases from elementary school through high school. An area to further investigate is student use of technology to manipulate, analyze, and interpret data, which peaks in middle school.

Tools: Although 72% of elementary respondents know of the existence of tools to view and sort all formal assessment results, and 82% know of the existence the WPS portal containing common formative assessments (CFAs) summative assessments, pacing maps, and other resources, only 60% are making use of these tools. A challenge is to increase the use of these tools. In the fall of 2015 WPS Technology staff designed and built a new web-based Curriculum Resources site to assist staff with ease of access to curriculum, pacing, resources and assessments tools per course.

Assessment: Approximately 80% of teachers disaggregate data from common formative assessments, and 75% adapt their lesson based upon the results, calling for more professional development opportunities in content area integration. Increased professional development and focused training has expanded use of Interactive Achievement which has positively impacted our assessment processes. WPS is thankful that VDOE awarded Interactive Achievement's Longitudinal Data System a statewide contract, which allows us continued use of very beneficial platform with reduced local financial obligation.

## GOAL 1

### ***Provide a safe, flexible, and effective learning environment for all students***

The first step in supporting student learning is establishing an effective learning environment. Technology provides a variety of tools that allow schools to create and support physical and virtual environments in new and innovative ways to support teaching and learning. (Virginia Department of Education [VA DOE], 2010).

“Technology supports learning by providing engaging environments and tools for understanding and remembering content.” (U.S. Department of Education [U.S. DOE], 2010) Technology supports curricular flexibility, particularly as it promotes collaborative learning. A key is that tools can often be personalized for the classroom environment and individual students. (VA DOE, 2010) Effective technology integration is achieved when the use of technology is routine and transparent and when technology supports curricular goals. (The George Lucas Foundation, 2008)

Winchester Public Schools strives to achieve effective integration of technology into the curriculum. Multiple training opportunities are provided for teachers to learn how to truly incorporate technology into their everyday lesson activities. Winchester Public Schools actively seeks ways to encourage and assist classroom teachers to incorporate Assistive Technology (AT) into their teaching and provides this technology to students as required to help facilitate, as our motto states, “Learning for All”. Winchester Public Schools is also committed to evaluating and implementing, as appropriate, new and emerging technologies and works with regional consortia and universities to assist in the exploration of new tools.

Providing a safe environment in which to use technology is vitally important and is supported by providing training and resources to teachers and students in Internet safety and ethical use. Content is actively filtered and access is monitored to protect students.

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

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

- **Strategy 1.1.1:** Expand the exploration, implementation and modeling of software and online resources to support instruction to include the development of curriculum projects that utilize blended and virtual learning.
  - **Evaluation Strategy:** Maintain software and online subscription database.
- **Strategy 1.1.2:** Provide access to collaborative learning environments for staff and students.

- **Evaluation Strategy:** Describe collaborative learning environments and describe their use.
- **Strategy 1.1.3:** Coordinate, assist with and support pilot programs and projects to help educators better understand the impact of new and emerging technologies on the learning environment and develop strategies to effectively integrate them into schools
  - **Evaluation Strategy:** Describe pilot program selection and evaluation methods and strategies for technology integration in schools.

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

- **Strategy 1.2.1:** Provide Technology support staff at or above Virginia Standards of Quality requirements
  - **Evaluation Strategy:** Describe progress in meeting Technology staffing needs.
- **Strategy 1.2.2:** Implement and maintain a robust, scalable enterprise-class wired and wireless network infrastructure in all schools.
  - **Evaluation Strategy:** Describe extent of implementation, uptime and support.
- **Strategy 1.2.3:** Continually evaluate, install, maintain, upgrade and replace network-capable hardware and appropriate software.
  - **Evaluation Strategy:** Describe progress.
- **Strategy 1.2.4:** Work with the VA Star program and the Winchester Education Foundation to provide computers for home use to needy families.
  - **Evaluation Strategy:** Number of computers distributed.

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

- **Strategy 1.3.1:** Provide local differentiated professional development for instructional personnel and administrative staff on the effective integration of technology and data driven decision making.
  - **Evaluation Strategy:** Describe and document professional development opportunities.
- **Strategy 1.3.2:** Provide local technology professional development for instructional personnel on information and communication technology (ICT) and cyber safety and ethics.
  - **Evaluation Strategy:** Describe and document professional development opportunities

- **Strategy 1.3.3:** Promote availability and integration of online and technology infused resources to support the curriculum and address the needs of all learners.
  - **Evaluation Strategy:** Describe resources that are available.
  
- **Strategy 1.3.4:** Provide training and support to spread awareness, and identify and implement appropriate assistive technologies for students with special needs.
  - **Evaluation Strategy:** Describe Assistive Technology (AT) study committee meetings and activities.
  - **Evaluation Strategy:** Provide training through local AT committee and Title IID supported in-service.
  - **Evaluation Strategy:** Participate in state and regional AT partnerships, conferences, and in-service opportunities.

## GOAL 2

### ***Engage students in meaningful curricular content through the purposeful and effective use of technology***

Student engagement refers to a "student's willingness, need, desire and compulsion to participate in, and be successful in, the learning process promoting higher level thinking for enduring understanding." (Bomia, 1997) Student engagement is frequently defined by a student's willingness to participate in routine school activities, such as attending class, submitting required work, and following teachers' directions in class (Chapman, 2003). Student engagement requires that teachers and administrators actively seek to create the conditions that foster true engagement in the learning process.

Technology can be used to build and foster engagement. In today's technological based society, it only makes sense that "true engagement" would require the use of appropriate technology by both teachers and students. Over the past five years, WPS installed an Internet-linked interactive whiteboard in each and every classroom. Interactive whiteboards affect learning in several ways, including raising the level of student engagement in a classroom.

Solvie (2001) investigated the correlation between the use of an interactive whiteboard as a delivery tool for literacy instruction in a first-grade classroom and student attention to and participation in the literacy lessons. Her research found:

The SMARTBoard [interactive whiteboard] was novel and created enthusiasm for learning on the part of the students as evidenced in remarks made during the lessons presented using the SMARTBoard and during individual student interviews, such as "I like touching the SMARTBoard," "my finger is magic," "I like when the lines get different," "it's a lot more easy using the interactive whiteboard, but I don't know why," "we used the SMARTBoard and it went ding, ding, ding," "every part of the word is special" and "the board is magic." Students were engaged when they actually touched the SMARTBoard or used it to manipulate text.

"My students are more engaged in lessons when they are on the Smart Board - anything from reading the Open Court decodable books to doing interactive Thinking Maps to having internet access and showing streamed videos - it has certainly changed the way I instruct in the classroom."

*Laura Baker, 1st Grade  
Winchester Public Schools*

In Winchester, teachers have similar reactions to the changes that have taken place in their classroom since the installation of the interactive whiteboard. WPS teachers report:

"SMARTBoard technology brings the "real" world into the classroom. My Kindergarten students use a BBC site to illustrate the daily weather and an Internet search engine to find the current weather each morning. Being able to locate pictures of unknown vocabulary words is most beneficial. Being able to display interactive alphabet activities is a student "favorite". In math, I am able to model many SOL skills before students work independently on those skills.

SMARTBoard technology is promotes a high level of "engagement" with my students!"

"My SMARTBoard is the center of my instruction. Even though I am not an expert, I organize all I do on it. I am able to greet my students at the door each morning, knowing they go in the room and check the board for information on lunch and what to do during homeroom. I teach two subjects four times a day. I go from screen to screen as we progress through the lesson with links to pictures, video, interactive games and lessons, and interactive notes. I can highlight notes from my desk or at the board as students answer questions about the essential information. Students can mark answers and move items. EXAMPLE: The first Virginia Studies SOL is identifying the states that border Virginia. Each day, I had the states scrambled on the SMARTBoard with the agenda. Each day, students came to the board, named a state, and moved it like you would a jigsaw puzzle piece, to the place it bordered Virginia. I was easily able to assess who "had it" and who needed more practice. They loved it and would "challenge" if a state was placed incorrectly."

Student engagement is crucial to student learning and, as a growing amount of research shows, interactive whiteboards promote student engagement. The interactive whiteboard and its software allows for the development of classroom activities that are engaging for student, so they encourage greater focus, participation, interaction, and, as a result, improve student learning.

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

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

- **Strategy 2.1.1:** Increase number of Technology Resource Teachers to provide a one TRT/School ratio to provide increased innovative professional development.
  - **Evaluation Strategy:** Describe progress in meeting one TRT/School ratio.
- **Strategy 2.1.2:** Develop and implement innovative professional development opportunities that focus on effective technology use and integration as guided by core curricular areas, staff and student needs, and division priorities.
  - **Evaluation Strategy:** Maintain a database of professional development offerings. Survey teachers immediately after the class and at regular intervals to determine: (1) if a particular course was effective; and, (2) if other areas of staff development need to be addressed.
  - **Evaluation Strategy:** Maintain Technology training and professional development calendar of events and offerings on division accessible Technology Training website.

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

- **Strategy: 2.2.1:** Provide and support a wide range of tools and resources including online resources, targeted instructional resources, and assistive technology.
  - **Evaluation Strategy:** Describe available resources.
  - **Evaluation Strategy:** Continue to provide assistance in evaluation, recommendation, and modeling curricular specific online resources and apps
  
- **Strategy 2.2.2:** Support and maintain access to an interactive learning environment in every WPS classroom.
  - **Evaluation Strategy:** Maintain, monitor school based SmartBoard system inventory. Provide funds to purchase and maintain SMARTBoard systems as needed as determined by appropriate stakeholders.
  - **Evaluation Strategy:** Maintain and monitor use of and provide funding for student based mobile device resource availability to provide for equitable access
  - **Evaluation Strategy:** Maintain in-service trainings and professional development on available interactive learning resources
  
- **Strategy 2.2.3:** Evaluate, provide, maintain and support equitable access to wireless mobile environments.
  - **Evaluation Strategy:** Maintain and monitor school based mobile device inventory.
  - **Evaluation Strategy:** Provide funds to purchase and maintain wireless mobile labs as needed.
  - **Evaluation Strategy:** Maintain and support a secured BYOD program at the high school to increase the technology available to students.
  - **Evaluation Strategy:** Implement, support, monitor and fund a 1:1 Digital Learning Initiative to provide equitable devices to all students in grades 5-12

**Objective 2.3:** Facilitate the implementation of high-quality Internet safety programs in schools.

- **Strategy 2.3.1:** Review and revise Internet safety curriculum, materials and guides.
  - **Evaluation Strategy:** Adoption of revised curriculum. Document in-service provided. Conduct an annual survey of students and faculty.
  
- **Strategy 2.3.2:** Provide ongoing in-service and resources to students, teachers, and parents on safe and ethical use of the Internet and Digital Citizenship.
  - **Evaluation Strategy:** Document Technology Resource Teacher delivered training using in-service tracking database.

- **Strategy 2.3.3:** Maintain and promote an up-to-date Acceptable Use Policy for all network users.
  - ***Evaluation Strategy:*** Annually review, evaluate, and if needed amend the Acceptable Use Policy.

## GOAL 3

### ***Afford students with opportunities to apply technology effectively to gain knowledge, develop skills, and create and distribute artifacts that reflect their understandings***

Winchester Public Schools fully agrees with the International Society for Technology in Education (ISTE) core principal that students must have frequent and consistent opportunities to use technology to develop skills that encourage productivity, creativity, critical thinking, and collaboration in the classroom and in daily life. (International Society for Technology in Education, 2007). In recent past, it was sufficient for students to master the basics of computing. Now, in addition to the basic skills of literacy and numeracy, every learner must also master the “three C’s”: communication, collaboration, and creative problem solving. (Online Communication Channel, 2010).

Of the challenges facing education today, preparing students to be fluent in the use of computational and communication technologies may be one of our greatest. To succeed, technology must be seamlessly integrated into the curriculum so it becomes second nature to the teachers and students.

To succeed, our teachers and administrators must have opportunities to become ICT literate in order to provide the guidance and expertise to our students. In the classroom, students need exposure to many applications – both web-based or computer based – to learn the function of digital tools so they can learn which are best for a specific job. Many of these tools allow multi-user input, fostering collaboration in a classroom, school, or global basis. Keeping teachers informed of age-appropriate digital tools which can be integrated into content areas is critical to ICT literacy.

The following age appropriate examples which indicate stages of ICT development reveal that integration of technology can be seamless if technology is used regularly (ISTE, 2007):

#### *Ages 4-8*

- Illustrate and communicate original ideas and stories using digital tools and media-rich resources.
- Demonstrate safe and cooperative use of technology.

#### *Ages 8-11*

- Select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypothesis.
- Produce a media-rich digital story about a significant local event based on first-person interviews.

#### *Ages 11-14*

- Participate in a cooperative learning project in a class based online learning community.
- Integrate a variety of file types to create and illustrate a document or presentation.
- Select and use the appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.

#### *Ages 14-18*

- Model legal and ethical behaviors when using information and technology by properly selecting, acquiring, and citing resources.
- Create media-rich presentations for other students on the appropriate and ethical use of digital tools and resources.
- Select digital tools or resources to use for a real-world task and justify the selection based upon their efficiency.

In addition to illustrating some NETS\*S standards, these cited examples also demonstrate the need for students to be able to choose the most effective application for the task.

To monitor student progress in the content areas, formative assessments are increasingly being used by school systems. (Villano, 2006) Formative assessment can be time consuming, and it can be difficult and cumbersome to collect and organize the answers. Thus, instructional technology becomes a useful tool for ensuring that everyone participates, for collecting, sorting, and displaying answers efficiently. (Dufresne, 2000) A growing number of companies are offering web-based tools; WPS has implemented Interactive Achievement. The SOL-aligned, web-based, common formative assessments (CFAs) are administered to elementary students twice each quarter in the major content areas. In the recent past, the tests were created using questions from a test bank from Flanagan. Now, teachers may create online tests using their own questions, allowing them to better assess their students' progress and providing tools to effectively individualize instruction. As mobile device saturation continues WPS has been providing an assortment of recommendations for flexible, dynamic assessments tools and resources that enable instructional staff to be able to gauge comprehension immediately, allowing them to dynamically adjust delivery of content. Applications such as Kahoot, PearDeck, Poll Everywhere, and Gedit among others are used interactively to assess engagement and content understanding.

To further integrate assessment with curricula and instruction, WPS has completed the research and design phase and planning and development are ongoing for a new interactive web-based content management resource which will contain teacher-created CFAs, Standards of Learning, pacing guides, and instructional resources. The collaborative aspect of this site, while streamlining file organization, will also provide teachers with an opportunity to practice an important component of ICT. A mid-sized public relations firm recently deployed such a site as a way to manage PR projects and found one benefit was faster real-time collaboration among users. (2008, Meister, Chief Learning Officer).

A strong professional development program is necessary to ensure our teachers remain up to date regarding the infusion of technology in the classroom to enhance and differentiate instruction, emerging technologies, and class management to foster problem solving, creation, communication, and collaboration.

Some of the application related goals outlined in the WPS 2011-2015 Technology Plan which were attained include:

- Increase the number of in-service offerings that focus on technology integration into the instructional process and provide opportunities to attend regional and national workshops and conferences.
- Offer recertification points for technology course work.
- Participate with regional consortia and local colleges and universities to provide course work consistent with the TSIP and/or ISTE standards. Beginning in 2013, a new JMU graduate course in integrating technology is now in place taught by WPS Technology Resource Teachers.
- Provide training on technology integration topics at various levels for specific audiences.

Areas on which to focus in the 2014-2016 Technology Plan include:

- Develop an in-service plan to train staff in the use and integrations of Google Applications For Education.
- Development of courses to analyze data, specifically student results from common formative and summative assessments obtained from our online testing system.

Areas on which to focus in the 2016-2018 Technology Plan include:

- Broaden our in-service offerings and depth of concentration in available training sessions, especially as they pertain to resources tied directly to our Google Apps for Education and 1:1 Digital Learning Initiatives
- Continue research and exploration of readily available open educational resources (OER) as they pertain to curricular specific needs

Winchester's Webcast Historians program provides an opportunity for students to participate in a program in which they learn how to use technology to explore and interpret local historical sites. The students are led by a TRT and a classroom teacher and are each supplied with a flip video camera, a digital still camera, and a voice recorder. They visit several historical sites in Winchester (The Old Court House Civil War Museum, Stonewall Confederate Cemetery, the site of the 3<sup>rd</sup> Battle of Winchester, and Huntsberry Farm) for the purpose of creating informational videos to be shared via the web.

While on the field sites, the students learn to choose the appropriate hardware for the project, whether they want video and audio, still images, or audio only. In the classroom, the students are asked to develop a theme for their investigation, to create a storyboard as a means of organizing their thoughts and images in a logical manner, and to create a presentation using PhotoStory or Movie Maker to create the webcasts. Similar to the decisions made in the field, the students must choose the most appropriate application to complete each phase of the project.

This program supports the Virginia History curriculum as well as providing problem solving and knowledge acquisition experiences for the students. The Webcast Historians project allows educators to help students improve their writing, communication, and computer skills. This project is flexible enough to support the Standards of Learning (SOL) and address differentiated learning by challenging advanced learners with opportunities beyond their grade levels while allowing other students the chance to practice basic skills. Through the Webcast Historians program, students are exposed to real life instances where they learn how specific technologies work so they can use them to the fullest degree.

With the growing number of technologies available, finding the appropriate tool to meet the curriculum needs is an essential task of every educator. Application of technology tools to enhance student engagement, assess student knowledge, and inspire critical thinking is the ultimate goal of the classroom teacher. In order to reach this goal, it is important for teachers to have the professional development and training to learn about emerging technology tools and their application to enhance student learning. Students must learn to use these tools and translate the application of the tools into real-world knowledge.

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

**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.

- **Strategy 3.1.1:** Maintain a web-based system to track all training provided by TRTs to include formal training as well as just-in-time training.
  - **Evaluation Strategy:** Monitor the records of the training system to determine any trends which could reflect any system-wide training opportunities.
- **Strategy 3.1.2:** Continue to increase the number of system wide technology integration courses offered in multi-day and single class sessions. These courses may be face-to-face, web-based, or a hybrid and will address a wide range of skill levels.

- **Evaluation Strategy:** Document, review, and amend all course offerings as needed.
- **Strategy 3.1.3:** Offer professional development opportunities to help educators analyze data obtained from common formative and summative assessments.
  - **Evaluation Strategy:** Document the course offerings and survey teachers to learn if analysis of tests has increased.
- **Strategy 3.1.4:** Maintain appropriate school level and division-wide technology training and support and assist with certifying instructional staff in relevant platforms.
  - **Evaluation Strategy:** Monitor budget to ensure funding is continued to provide appropriate staff to meet, not only Virginia Standards of Quality requirements, but the needs as defined by the division strategic plan and initiatives and those identified in local goals and plans.
  - **Evaluation Strategy:** Maintain training course offering schedule and monitor staff completing and receiving technology relevant certifications
- **Strategy 3.1.6:** Continue to offer a technology course at the elementary level to provide a stronger foundation in the use and integration of technology tools.
  - **Evaluation Strategy:** Describe content of course and rigor and relevance of curriculum.

**Objective 3.2:** Ensure that students, teachers, and administrators are Information and Communications Technologies (ICT) literate.

- **Strategy 3.2.1:** Identify and disseminate information and resources to ensure that schools can effectively teach, assess and report ICT literacy.
  - **Evaluation Strategy:** Survey staff to identify specific professional development needs to be incorporated into the system's in-service offerings each year.
  - **Evaluation Strategy:** Track resources available to assist with ICT literacy through memberships in ISTE, VSTE, and the Shenandoah Valley Technology Consortium.
- **Strategy 3.2.2:** Provide and support high-quality professional development focused on the acquisition and application of ICT skills for teaching, learning, and school management.
  - **Evaluation Strategy:** Continue offering of graduate course in conjunction with James Madison University to offer teachers a means to acquire NETS\*T certification.
- **Strategy 3.2.3:** Enhance curricula using Internet resources and software that encourage creativity, collaboration, and problem solving by extending the use of tools available from the Google Apps for Education platform as well as those in conjunction with the Chromebook 1:1 Digital Learning Initiative.

- **Evaluation Strategy:** Describe the use of recommended cloud based resources and impact of each for the different grade levels.
- **Strategy 3.2.4:** Continue to update school websites to provide students easy access to websites deemed instructionally relevant by teachers. Maintain the WPS website and GO WPS! Mobile app to include student educational resource links.
  - **Evaluation Strategy:** Monitor and maintain the school's websites, the WPS website and mobile app.
- **Strategy 3.2.5:** Maintain policy addressing the use of social media by faculty and staff.
  - **Evaluation Strategy:** Review, evaluate and if necessary amend the policy as necessary
  - **Evaluation Strategy:** Review the WPS Internet safety resources to include the most recent resources available to promote Internet safety.
- **Strategy 3.2.6:** Support innovation programs that prepare students to master CTE subjects and earn industry certifications.
  - **Evaluation Strategy:** Monitor course offerings and number of students earning certifications.

**Objective 3.3: Implement technology-based formative assessments that produce further growth in content knowledge and skills development.**

- **Strategy 3.3.1:** Design, implement and assist with maintaining a curriculum-based website accessible to all teachers containing Virginia DOE framework or Virginia Standards. Pacing guides, instructional resources and assessments.
  - **Evaluation Strategy:** Monitor use and collaborative engagement in Curriculum resources website
- **Strategy 3.3.2:** Implement and provide training and support for tools, such as Interactive Achievement, or online dynamic assessment applications, for teachers to disaggregate test data for individualized instruction, track student progress, and evaluate student and teacher success.
  - **Evaluation Strategy:** Technology staff assists with evaluation and use.

## 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 understandings***

Technology is a tool that can change the nature of learning. Effectively using technology tools to ensure that teachers are able to create meaningful learning experiences, facilitate the use of quality tools and information resources, and apply effective teaching strategies has been the goal of schools since the 1980's. The key is not the technology, but the use of meaningful and authentic resources to engage student learning.

Winchester Public Schools strives to provide quality technology tools to classroom teachers. Each classroom is equipped with an interactive whiteboard and projector. Providing these technology tools enables teachers to create and customize the learning experience to meet individual student needs. A wide variety of additional technology tools such as interactive response systems, video camcorders, digital cameras, and digital voice recorders are also available to classroom teachers and students.

Interactive response systems are valuable tools that provide immediate student feedback. The student response systems offer personalized practice and progress monitoring within the classroom setting. Response systems allow teachers to quickly assess and adjust curriculum pacing to meet the needs of each student. This 21<sup>st</sup> century tool also motivates students to become actively engaged in the learning process.

Multimedia tools, such as the camcorders, digital cameras, and digital voice recorders, have the potential to broaden the amount and type of information available to learners. Integrating these tools into the content area enables teachers to incorporate individual student learning styles into their daily instruction. Students' use of these technology tools has the added potential for self assessment of their achievements and knowledge of the content. This changes the student's perspective to provide ownership of the learning process.

The system's focus for 2016-2018 is on putting technology access directly in the hands of students. This focus initiated the implementation of a BYOD program at our high school. In the 2015-2016 school year we launched our 1:1 Digital Learning Initiative which drastically boosts this goal as we put Chromebooks into the hands of every 6<sup>th</sup> and 7<sup>th</sup> grade student. Individual mobile device use is growing, particularly in the areas of special education, speech, and ESL as many unique online resources and apps pave the way for a new style of student learning and interaction. With the Virginia Department of Education recently announcing the initial phase of the state's migration to TestNAV8 in the fall of 2016 we will begin ramping up efforts to be able to provide for SOL testing on these devices as those tests become available. After an initial pilot of Google Apps for Education at an elementary and high school we have since fully migrated to this platform across the division. The use of Google Apps for Education has positively changed the teaching and learning environment at Winchester Public Schools as a platform for

collaboration, and tremendous toolset with collaborate cloud storage and accessibility. Going forward we will continue to expand in-service training opportunities and continue to explore a diverse set of online third party toolsets, apps and management modules to help us continue to grow the effectiveness and increased management needs of this platform.

This wide variety of technology tools enables the teacher to quickly assess student achievement. It also enables the student to evaluate and assess their knowledge of the content areas. The multimedia activities created by these tools can be shared with students, staff, and the community to enhance the learning process.

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

**Objective 4.1:** Provide a flexible technology environment with resources and support to ensure that every student has access to a personal computing device that can be personalized to the learning needs of the user.

- **Strategy 4.1.1:** Provide tools that extend students' capabilities, can be customized to meet individual needs and preferences, and support learning.
  - **Evaluation Strategy:** Teachers utilize multiple stationary labs, mobile laptop carts, and media centers to customize learning experiences based on curriculum needs and pacing guides.
  - **Evaluation Strategy:** TRTs will continue to evaluate and assess teacher access to stationary and mobile labs to see that the appropriate tools are accessible and meet individual student needs.
  - **Evaluation Strategy:** Document equipment and resources provided through the budgeting/purchasing process and building-based inventories.
  - **Evaluation Strategy:** Monitor implementation of 1:1 Digital Learning Initiative to outfit students in grades 5-12 with an assigned mobile device.
- **Strategy 4.1.2:** Provide opportunities for students to learn and apply ICT skills in local and community settings using a variety of authentic tools.
  - **Evaluation Strategy:** Continue to provide ICT courses to promote skills needed for future careers. These courses replicate the technology tools used in the workforce.
  - **Evaluation Strategy:** Document student progress.

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

- **Strategy 4.2.1:** Provide and support high-quality professional development to assist educators in evaluating and integrating technology tools in ways that foster effective use for all students.

- **Evaluation Strategy:** Continue to provide a wide variety of course offerings to showcase the vast number of available system-wide and school-based technology tools.
  - **Evaluation Strategy:** Provide more meaningful staff development by offering hands-on training to demonstrate the integration of technology tools.
  - **Evaluation Strategy:** Monitor and document the attendance and success of the system's staff development programs.
- **Strategy 4.2.2:** Provide ongoing training and just-in-time support to assist teachers in effectively integrating a variety of technology-based tools into teaching and learning.
    - **Evaluation Strategy:** Monitor budget to ensure funding is continued to provide appropriate staff to meet, not only Virginia Standards of Quality requirements, but the needs as defined by the division strategic plan and initiatives and those identified in local goals and plans.
    - **Evaluation Strategy:** Continue to offer multiple ICT training sessions, both single-day and multiple-day sessions, at all of the school sites.
    - **Evaluation Strategy:** Increase the use of common planning time to provide introduction and support of technology tools that can be tailored to specific curriculum needs.
  - **Strategy 4.2.3:** Provide timely and effective technical support to ensure all tools and the supporting network resources are readily available and properly maintained.
    - **Evaluation Strategy:** Monitor budget to ensure funding is continued to provide appropriate staff to meet, not only Virginia Standards of Quality requirements, but the needs as defined by the division strategic plan and initiatives and those identified in local goals and plans.
    - **Evaluation Strategy:** Continue to provide, monitor and assess the technology work order system. The work order system is an online system used to provide network engineers, computer technicians, and TRTs with information needed to provide just-in-time technical support, maintenance, and replacement equipment.

**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.

- **Strategy 4.3.1:** Engage in proactive self-study to stay abreast of new and emerging technologies.
  - **Evaluation Strategy:** Describe methods of identifying and disseminating information about new and emerging technologies.
  - **Evaluation Strategy:** Describe differentiated professional development and training provided to staff for new and emerging technologies.
- **Strategy 4.3.2:** Coordinate, assist with and support pilot programs and projects to help educators better understand the impact of new and emerging technologies on

the learning environment and develop strategies to effectively integrate them into schools

- **Evaluation Strategy:** Describe pilot program selection and evaluation methods and strategies for technology integration in schools.

## GOAL 5

### ***Use technology to support a culture of data-driven decision making to evaluate and improve teaching and learning and enhance administrative support functions.***

“Understanding and using data about school and student performance are fundamental to improving schools. Without analyzing and discussing data, schools are unlikely to identify and solve the problems that need attention, identify appropriate interventions to solve those problems, or know how they are progressing toward achievement of their goals. Data are the fuel of reform.” (Killion and Bellamy, 2000). The need for better decision making in our nation's schools has grown in tandem with the rise in standards-based reform and performance accountability systems. Under the requirements of the No Child Left Behind legislation, school districts are required to test students, collect performance data and use that data to identify strengths and weaknesses in their educational system. (Technology Alliance, 2005). Winchester Public Schools is committed to expanding access to data and the use of data to evaluate and improve teaching and learning and enhance administrative support functions.

### **Goal 5 Objectives: Use technology to support a culture of data-driven decision making to evaluate and improve teaching and learning and enhance administrative support functions.**

**Objective 5.1:** Use data to inform and adjust technical, instructional, and financial support.

- **Strategy 5.1.1:** Conduct an annual survey to assess the use of technology in the teaching and learning process and the availability of resources, in-service, and support.
  - **Evaluation Strategy:** Conduct survey and share results.
- **Strategy 5.1.2:** Maintain databases and calendars to track technical service requests and in-service provided by TRTs to analyze service, staffing, and training needs.
  - **Evaluation Strategy:** Review data as part of the annual plan review process; use data in staffing and budget requests as needed.
- **Strategy 5.1.3:** Assess student technology skills annually.
  - **Evaluation Strategy:** Administer ICT assessment to student sample and analyze results.

**Objective 5.2:** Provide support to help teachers and administrators disaggregate, interpret, and use data for instructional improvement.

- **Strategy 5.2.1:** Provide opportunities for TRTs and Instructional Department staff to collaborate and share resources involving data collection and analysis, system expectations, resources, and design of in-service.
  - **Evaluation Strategy:** Describe in-service opportunities.
- **Strategy 5.2.2:** Provide training, support, and resources to help teachers interpret data for instructional improvement and data driven decision making.
  - **Evaluation Strategy:** Document delivered differentiated professional development and data assessment support
- **Strategy 5.2.3:** Evaluate and implement a student data performance, reporting, and longitudinal data system with enhanced technology tools for assessment, data storage, analysis, and reporting.
  - **Evaluation Strategy:** Describe evaluation and implementation.

**Objective 5.3:** Promote the use of technology to inform the design and implementation of next-generation standardized assessments.

- **Strategy 5.3.1:** Implement and provide training and support for tools, such as Interactive Achievement, or online dynamic assessment applications, for teachers to disaggregate test data for individualized instruction, track student progress, and evaluate student and teacher success.
  - **Evaluation Strategy:** Document delivered training and evaluate use of assessments.
- **Strategy 5.3.2:** Explore, research and implement next generation online SOL delivery platform across multiple device platforms
  - **Evaluation Strategy:** Describe process in testing, implementing, supporting next generation delivery platform.

## Appendix 1: Timetable

For the most part, the goals, objectives, and strategies of this strategic plan are ongoing and cover all years of the plan cycle. Specific implementation (type and number of devices deployed, specific online resources selected, in-service offered, etc.) will be determined during implementation phase based on evolution and evaluation of resources, including budgetary resources, available at that time.

<b><i>Goal1 Objectives: Provide a safe, flexible, and effective learning environment for all students.</i></b>	<b><i>2014-2015</i></b>	<b><i>2015-2016</i></b>	<b><i>2016-2017</i></b>	<b><i>2017-2018</i></b>
Objective 1.1: Deliver appropriate and challenging curricula through face-to-face, blended, and virtual learning environments.	██████	██████	██████	██████
○ Strategy 1.1.1: Expand the exploration, implementation and modeling of software and online resources to support instruction to include the development of curriculum projects that utilize blended and virtual learning.		██████	██████	██████
○ Strategy 1.1.2: Provide access to collaborative learning environments for staff and students	██████	██████	██████	██████
○ Strategy 1.1.3: Coordinate, assist with and support pilot programs and projects to help educators better understand the impact of new and emerging technologies on the learning environment and develop strategies to effectively integrate them into schools		██████	██████	██████
Objective 1.2: Provide the technical and human infrastructure necessary to support real, blended, and virtual learning environments.	██████	██████	██████	██████
○ Strategy 1.2.1: Provide Technology support staff at or above Virginia Standards of Quality requirements		██████	██████	██████
○ Strategy 1.2.2: Implement and maintain a robust, scalable enterprise-class wired and wireless network infrastructure in all schools.	██████	██████	██████	██████
○ Strategy 1.2.3: Continually evaluate, install, maintain, upgrade and replace network-capable hardware and appropriate software.	██████	██████	██████	██████

<b><u>Goal1 Objectives: Provide a safe, flexible, and effective learning environment for all students.</u></b>	<b><u>2014-2015</u></b>	<b><u>2015-2016</u></b>	<b><u>2016-2017</u></b>	<b><u>2017-2018</u></b>
o Strategy 1.2.4: Work with the VA Star program and the Winchester Education Foundation to provide computers for home use to needy families.	████████	████████	████████	████████
Objective 1.3: Provide high-quality professional development to help educators create, maintain, and work in a variety of learner-centered environments.	████████	████████	████████	████████
o Strategy 1.3.1: Provide local differentiated professional development for instructional personnel and administrative staff on the effective integration of technology and data driven decision making.	████████	████████	████████	████████
o Strategy 1.3.2: Provide local technology professional development for instructional personnel on ICT and cyber safety and ethics.	████████	████████	████████	████████
o Strategy 1.3.3: Promote availability and integration of online and technology infused resources to support the curriculum and address the needs of all learners.	████████	████████	████████	████████
o Strategy 1.3.4: Provide training and support to spread awareness, and identify and implement appropriate assistive technologies for students with special needs.	████████	████████	████████	████████

<b><u>Goal 2 Objectives:</u> Engage students in meaningful curricular content through the purposeful and effective use of technology.</b>	<u>2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>
Objective 2.1: Support innovative professional development practices that promote strategic growth for all educators and collaboration with other educators, content experts, and students.	■	■	■	■
○ Strategy 2.1.1: Increase number of Technology Resource Teachers to provide a one TRT/School ratio to provide increased innovative professional development.	■	■	■	■
○ Strategy 2.1.2 Develop and implement innovative professional development opportunities that focus on effective technology use and integration as guided by core curricular areas, staff and student needs, and division priorities.	■	■	■	■
Objective 2.2: Use the ability of technology to individualize learning and provide equitable opportunities for all learners.	■	■	■	■
○ Strategy: 2.2.1: Provide and support a wide range of tools and resources including online resources, targeted instructional resources, and assistive technology.	■	■	■	■
○ Strategy: 2.2.2: Support and maintain access to an interactive learning environment in every WPS classroom.	■	■	■	■
○ Strategy: 2.2.3: Evaluate, provide, maintain and support equitable access to wireless mobile environments.	■	■	■	■
Objective 2.3 Facilitate the implementation of high-quality Internet safety programs in schools.	■	■	■	■
○ Strategy 2.3.1: Review and revise Internet safety curriculum, materials and guides.	■	■	■	■
○ Strategy 2.3.2: Provide ongoing in-service and resources provided to students, teachers, and parents on safe and ethical use of the Internet and Digital Citizenship.	■	■	■	■
○ Strategy 2.3.3: Maintain and promote an up-to-date Acceptable Use Policy for all network users.	■	■	■	■

<b><u>Goal 3 Objectives:</u> Afford students with opportunities to apply technology effectively to gain knowledge, develop skills, and create and distribute artifacts that reflect their understandings.</b>	<u>2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>
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.	████████	████████	████████	████████
o Strategy 3.1.1: Maintain a web based system to track all training provided by TRTs to include formal training as well as just-in-time training.	████████	████████	████████	████████
o Strategy 3.1.2: Continue to increase the number of system wide technology integration courses offered in multi-day and single class sessions. These courses may be face-to-face, web-based, or a hybrid and will address a wide range of skill levels.	████████	████████	████████	████████
o Strategy 3.1.3: Offer professional development opportunities to help educators analyze data obtained from common formative assessments via Interactive Achievement.	████████	████████	████████	████████
o Strategy 3.1.4: Maintain appropriate school level and division-wide technology training and support and assist with certifying instructional staff in relevant platforms.	████████	████████	████████	████████

<b><u>Goal 3 Objectives:</u> Afford students with opportunities to apply technology effectively to gain knowledge, develop skills, and create and distribute artifacts that reflect their understandings.</b>	<u>2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>
Objective 3.2: Ensure that students, teachers, and administrators are ICT literate.				
o Strategy 3.2.1: Identify and disseminate information and resources to ensure that schools can effectively assess and report ICT literacy.				
o Strategy 3.2.2: Provide and support high-quality professional development focused on the acquisition and application of ICT skills for teaching, learning, and school management.				
o Strategy 3.2.3: Enhance curricula using Internet resources and software that encourage creativity, collaboration, and problem solving by extending the use of tools available from the Google Apps for Education platform as well as those in conjunction with the Chromebook 1:1 Digital Learning Initiative.				
o Strategy 3.2.4: Continue to update school websites to provide students easy access to websites deemed instructionally relevant by teachers. Maintain the WPS website and GO WPS! Mobile app to include student educational resource links.				
o Strategy 3.2.5: Maintain policy addressing the use of social media by faculty and staff.				
o Strategy 3.2.6: Support innovation programs that prepare students to master CTE subjects and earn industry certifications.				

<b><u>Goal 3 Objectives:</u> Afford students with opportunities to apply technology effectively to gain knowledge, develop skills, and create and distribute artifacts that reflect their understandings.</b>	<u>2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>
Objective 3.3: Implement technology-based formative assessments that produce further growth in content knowledge and skills development.				
<ul style="list-style-type: none"> <li>o Strategy 3.3.1: Design, implement and assist with maintaining a curriculum-based website accessible to all teachers containing Virginia DOE framework or Virginia Standards. Pacing guides, instructional resources and assessments.</li> </ul>				
<ul style="list-style-type: none"> <li>o Strategy 3.3.2: Implement and provide training and support for tools, such as Interactive Achievement, or online dynamic assessment applications, for teachers to disaggregate test data for individualized instruction, track student progress, and evaluate student and teacher success.</li> </ul>				

<b><u>Goal 4 Objectives:</u> Provide students with access to authentic and appropriate tools to gain knowledge, develop skills, extend capabilities, and create and disseminate artifacts that demonstrate their understandings.</b>	<u>2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>
Objective 4.1: Provide a flexible technology environment with resources and support to ensure that every student has access to a personal computing device that can be personalized to the learning needs of the user.	████████	████████	████████	████████
○ Strategy 4.1.1: Provide tools that extend students' capabilities, can be customized to meet individual needs and preferences, and support learning.	████████	████████	████████	████████
○ Strategy 4.1.2: Provide opportunities for students to learn and apply ICT skills in local and community settings using a variety of authentic tools.	████████	████████	████████	████████
Objective 4.2: Provide technical and pedagogical support to ensure that students, teachers, and administrators can effectively access and use technology tools.	████████	████████	████████	████████
○ Strategy 4.2.1: Provide and support high-quality professional development to assist educators in evaluating and integrating technology tools in ways that foster effective use for all students.	████████	████████	████████	████████
○ Strategy 4.2.2: Provide ongoing just-in-time support to assist teachers in effectively integrating a variety of technology-based tools into teaching and learning.	████████	████████	████████	████████
○ Strategy 4.2.3: Provide timely and effective technical support to ensure all tools and the supporting network resources are readily available and properly maintained.	████████	████████	████████	████████
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.	████████	████████	████████	████████
○ Strategy 4.3.1: Engage in proactive self-study to stay abreast of new and emerging technologies.	████████	████████	████████	████████

<b><u>Goal 4 Objectives:</u> Provide students with access to authentic and appropriate tools to gain knowledge, develop skills, extend capabilities, and create and disseminate artifacts that demonstrate their understandings.</b>	<u>2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>
<ul style="list-style-type: none"> <li>o Strategy 4.3.2: Coordinate, assist with and support pilot programs and projects to help educators better understand the impact of new and emerging technologies on the learning environment and develop strategies to effectively integrate them into schools</li> </ul>	████████	████████	████████	████████

<b><i>Goal 5 Objectives: Use technology to support a culture of data-driven decision making to evaluate and improve teaching and learning and enhance administrative support functions.</i></b>	<b><i>2014-2015</i></b>	<b><i>2015-2016</i></b>	<b><i>2016-2017</i></b>	<b><i>2017-2018</i></b>
Objective 5.1: Use data to inform and adjust technical, instructional, and financial support.	████████	████████	████████	████████
○ Strategy 5.1.1: Conduct an annual survey to assess the use of technology in the teaching and learning process, the availability of resources, in-service, and support.	████████	████████	████████	████████
○ Strategy 5.1.2: Maintain databases to track technical service requests and to track Technology Resource Teachers provided in-service to analyze service, staffing, and training needs.	████████	████████	████████	████████
○ Strategy 5.1.3: Assess student technology skills annually.	████████	████████	████████	████████
Objective 5.2: Provide support to help teachers and administrators disaggregate, interpret, and use data for instructional improvement.	████████	████████	████████	████████
○ Strategy 5.2.1: Provide opportunities for Technology Resource Teachers and Instructional Department staff to collaborate and share resources involving data collection and analysis, system expectations, resources and design of in-service.	████████	████████	████████	████████
○ Strategy 5.2.2: Provide training, support, and resources to help teachers interpret data for instructional improvement and data driven decision making.	████████	████████	████████	████████
○ Strategy 5.2.3: Evaluate and implement a student data performance, reporting, and longitudinal data system with enhanced technology tools for assessment, data storage, analysis, and reporting.	████████	████████	████████	████████

<b><u>Goal 5 Objectives:</u> Use technology to support a culture of data-driven decision making to evaluate and improve teaching and learning and enhance administrative support functions.</b>	<u>2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>
Objective 5.3: Promote the use of technology to inform the design and implementation of next-generation standardized assessments.	██████	██████	██████	██████
<ul style="list-style-type: none"> <li>○ Strategy 5.3.1: Implement and provide training and support for tools, such as Interactive Achievement, or online dynamic assessment applications, for teachers to disaggregate test data for individualized instruction, track student progress, and evaluate student and teacher success.</li> </ul>	██████	██████	██████	██████
<ul style="list-style-type: none"> <li>○ Strategy 5.3.2: Explore, research and implement next generation online SOL delivery platform across multiple device platforms</li> </ul>			██████	██████

## Appendix 2: Budget

Winchester Public Schools depends upon several funding sources to implement this technology plan from local, state, and federal sources. Current technology spending (fiscal year 2015) as reported in the Annual School Report financial section totaled just over \$2.7 million.

Major funding sources include \$206,000 in state Technology Initiative dollars for hardware, over \$100,000 in Universal Service funds to support network and Internet access and communication services. Additional instructional funds are used to support in-service training programs that include after-school offerings, planning period walk-in training sessions, formal hosted PD, and attendance by faculty and staff at conferences and workshops. The Virginia e-Learning Backpack Initiative will provide substantial financial support for our 1:1 Digital Learning Initiative, as well as additional local funding that was secured beginning in fiscal year 2016. Almost \$800,000 in local funds support hardware and software acquisition, replacement and support, including a growing list of online subscriptions and web-based software and resources, and a significantly expanded wireless infrastructure throughout the system.

Additional support includes local and state funding, as well as a staff of fourteen, including four Technology Resource Teachers, a Technology Support Specialist, a Student Information System manager, a Coordinator of Instructional Technology and Testing, seven technical staff members, and a Director.

Budgets continue to be under pressure and always play a critical role in the implementation of the plans defined here. Winchester Public Schools, thanks to state and federal funding and local support, has managed to retain funding for core technology needs. In recent years, two to three hundred thousand dollars in carry forward funds have been placed in the Technology Carry Over fund as part of the system's CIP. These funds have been incredibly vital in maintaining the school system's infrastructure.

### Technology Department Budget 2014-15

Salaries and Benefits		\$ 1,486,777.00
Purchased Services		
Professional Services	\$ 10,000.00	
Data Processing Support	\$ 46,000.00	
HTE Support	\$ 26,500.00	
Hardware Support	\$ 47,100.00	
Software Support	<u>\$271,680.00</u>	\$ 401,280.00
Telecommunications		\$ 156,000.00
Miscellaneous		
Travel	\$ 5,000.00	
Dues	<u>\$ 1,000.00</u>	\$ 6,000.00
Materials and Supplies		
Office Supplies	\$ 2,500.00	
Books/Subscriptions	<u>\$ 400.00</u>	
		\$ 2,900.00
Hardware/Software		
Network Software	\$ 130,600.00	
Network Hardware	\$529,196.00	
Repairs/Replacement	<u>\$ 15,000.00</u>	
		<u>\$ 674,796.00</u>
		\$2,727,753.00

## Appendix 3: Acceptable Use Policy (AUP)

### ACCEPTABLE COMPUTER SYSTEM USE

#### I. Purpose

The School Board supports the use of technology for purposes of educational research, communication, and instruction, and to provide access to unique resources and opportunities for collaborative work. In furtherance of its approved curriculum, the School Board provides a Computer System, which includes the Internet, the use of which must be consistent with this Policy, the educational objectives and work climate of Winchester Public Schools ("WPS" or the "Division") and other School Board policies, regulations, and directives.

The term Computer System includes, but is not limited to, hardware, software, data, communication lines and devices, display devices, printers, CD/DVD and other media devices, flash drives, servers, mainframe and personal computers, tablets, laptops, cellular and network phones, including smart phones, the Internet and all other electronic services and internal or external networks (the "Computer System"). All use of the Computer System must be for educational purposes or legitimate school business. The Computer System is not a public forum and is not intended to be a forum; its purpose is to advance the Division's communications, curriculum, and work. This Policy applies to all users of the Computer System. By using or accessing the Computer System, the user agrees to abide by this Policy.

Use of the Computer System is a privilege, not a right, and can be withdrawn by the Division at any time, with or without prior notice. Any communication or material generated using the Computer System, including without limitation electronic mail, social media posts, instant or text messages, and other files, may be monitored, read, and/or archived by school officials without prior notice, reason, or permission, even if the communication or material was deleted from a user's account.

#### II. In General

A. The Computer System shall be used as follows:

1. The Computer System must be used for either an educational purpose or for legitimate school business. The term "educational purpose" includes, without limitation, use of the Computer System for class assignments; instruction, including the development and preparation of lessons and assignments; professional or career development; and otherwise in furtherance of the School Board's vision, mission, approved curriculum and other educational objectives.
2. The Computer System may not be used for commercial purposes. The term "commercial purposes" includes, without limitation, use of the Computer System for the purpose of promoting or soliciting the sale of an item or the promotion or

solicitation of a service that does not have an educational purpose or is not for legitimate school business; purchasing personal, family, or household items; to obtain a monetary or personal gain; to solicit membership in or support of any non-school sponsored organization; or to raise funds for any non-school sponsored purpose, whether profit or non-profit. No staff member shall knowingly provide names, e-mail addresses, or other personal information to outside parties whose intent is to communicate with staff, students and/or their families for non-school purposes.

3. The Computer System may not be used for political lobbying or campaigning. This activity includes, without limitation, sending e-mails or making web postings or advertisements that advocate support for a particular political position or candidate; however, nothing in this Policy shall be construed to limit staff and students from using the Computer System to communicate with their elected representatives and to express their opinion on political issues for educational purposes.

B. The following definitions apply to this Policy:

1. The term "staff" or "staff member" is defined to include all School Board employees, including without limitation all administrators, counselors, teachers, coaches, employees of virtual school programs (to include but not be limited to distance learning, on line programs) and vendors providing instructional services to students, as well as all student teachers, interns and practicum students, volunteers and community members.
2. The term "immediately" is defined as reporting a situation that may constitute a violation of this Policy within twenty-four hours of the first suspicion of the violation.

### III. Areas of Responsibility

Staff and students must comply with, and are responsible for monitoring, enforcing, and reporting infractions of this Policy as follows:

- A. Central office managers (i.e., department supervisors and directors) and building principals and other school-based administrators shall be responsible for ensuring that this Policy is followed.
- B. The Director of Technology will serve as the coordinator to oversee the Computer System and will work with other local, regional, or state organizations as necessary. All purchases of hardware, software, on-line resources, and other services must be evaluated and approved beforehand by the Director of Technology or designee.
- C. The building principal or designee will serve as the building-level coordinator for the Computer System and will support the building-level activities and Computer

System, ensure that staff receives training pursuant to this Policy, maintain student permission data, ensure that students receive training pursuant to this Policy, and be responsible for implementing and interpreting this Policy at the building level.

- D. Teachers shall be responsible for guiding and monitoring student use of the Computer System.
- E. Students shall be responsible for adhering to this Policy and using the Computer System for assignments directly related to the curriculum.
- F. Parents and guardians shall be responsible for ensuring that their child(ren) adhere to this Policy and use the Computer System for curriculum related assignments.

#### IV. Internet Safety

- A. Content Filtering. Pursuant to the federal Children’s Internet Protection Act, 47 U.S.C. § 254, and Va. Code § 22.1-70.2, the Division shall select and implement a technology protection measure to filter or block Internet access, for both adult and minor users, through the Computer System, to material unrelated to the Division's educational vision, mission, and approved curriculum, and to:
  - 1. Pornography, including child pornography, as defined by 18 U.S.C. § 2256 and Va. Code § 18.2-374.1:1;
  - 2. Profane and obscene material, as defined by 18 U.S.C. § 1460 and Va. Code § 18.2-372; and
  - 3. Material that the Division deems to be harmful to juveniles, as defined in Va. Code § 18.2-390, material that is harmful to minors, as defined in 47 U.S.C. § 254(h)(7)(G), and material that is otherwise inappropriate for minors.

The technology protection measure will be enforced during any and all use of the Computer System as required by law. The current technology protection measures include without limitation managed networks, firewalls, Internet filters, virus controls, and monitoring devices. Despite its best efforts, it may not be possible for the Division to restrict access to all prohibited materials. User activity and the operation of filtering protection measures will therefore be monitored to ensure compliance with federal and state law, this Policy, and other School Board policies, regulations, and directives.

- B. Student Training. Pursuant to Va. Code § 22.1-70.2, WPS will provide Internet safety training to all students. Internet safety instruction is integrated into the K-12 curriculum. Principals will review this Policy and other applicable School Board policies, regulations, and directives with staff and students annually.

- C. Student and Staff Training. WPS will also provide students and staff training designed to educate about appropriate online behavior, including without limitation, appropriate conduct when using email, social media, blogs, and chat rooms, as well as cyber bullying awareness and response.

V. Access to the Computer System

- A. Staff and students will have access to the Internet through selected computers and other electronic devices. Student use may be limited upon parental or guardian notification. Parents and guardians may request alternative activities for their child(ren) that do not require Internet access by notifying the building principal in writing or completing the Parent Permission Form for Student Involvement issued with the Student Handbook. Parents and guardians may also request to view the content of their child's user file.
- B. Staff and students are permitted to use personal electronic devices, such as smart phones tablets, and laptops, provided that such use is consistent with this Policy and as set forth in Policy JFI- Student Use of Personally Owned Electronic Devices.

VI. Limitation of Liability. The School Board makes no warranties of any kind, neither express nor implied, regarding the Computer System. The School Board will not be responsible for any damages users suffer, including, but not limited to:

- A. Loss of data resulting from delays or interruptions in service;
- B. Accuracy, nature, or quality of information stored on the Computer System;
- C. Accuracy, nature, or quality of information gathered through the Computer System;
- D. Damage to personal property used to access the Computer System; or
- E. Unauthorized financial obligations resulting from use of the Computer System.

VII. Unacceptable Uses of the Computer System

- A. WPS shall cooperate fully with local, state, and/or federal officials in any investigation concerning or relating to any alleged illegal activities conducted through the Computer System.
- B. Students who violate the provisions of this Policy, applicable state and federal law, applicable School Board policies, regulations, and directives, and/or applicable building-level rules shall be subject to disciplinary action in accordance with Policy JFC Student Conduct..
- C. School Board employees who violate the provisions of this Policy, applicable state and federal law, applicable School Board policies, regulations, and directives, and/or

applicable building-level rules shall be subject to disciplinary action in accordance with the School Board personnel policies.

- D. Non-employees violating this Policy shall have their access privileges immediately suspended.

### VIII. Computer System Monitoring and Related Searches

- A. Users have no right of privacy and should have no expectation of privacy in materials sent, received, or stored on the Computer System. The Division reserves the right to monitor and review all usage of the Computer System at any time, for any reason, with or without prior notice or permission.
- B. Routine maintenance and monitoring of the Computer System may lead to the discovery that the user has or is violating this Policy or other School Board policies, regulations, and directives.
- C. A search of a user's account shall be conducted if there is individual reasonable suspicion that a user has violated the law or School Board policies, regulations, or directives. The nature of the search/investigation will be reasonable and appropriate to the nature of the alleged misconduct.
- D. User files may be subject to protection and disclosure requirements set forth in the Family Educational Rights and Privacy Act (FERPA), Individuals with Disabilities Education Act (IDEA), the Freedom of Information Act (FOIA), and other federal and state laws.
- E. Users must provide their password upon request to technology staff for use in diagnosing and repairing Computer System problems and in providing routine maintenance and monitoring of the Computer System. In the event an account or password is known or suspected to have been lost, stolen, or disclosed, the user shall immediately report the incident to technology staff and new passwords will be created.

IX. Software and Hardware. Only school or Division licensed software approved by the Director of Technology may be installed on the Computer System. No school-licensed software may be copied for use on other school's Computer System unless this right is specifically granted in the school's license agreement. Software may only be installed by technology staff members. All licensing and registration materials shall be furnished to the building Technology Resource Teacher, who is responsible for maintaining licensing records on a building level. The Director of Technology will maintain records on Division licensed software.

X. Selection of Material. When using the Internet for class activities, staff shall select material that is appropriate in light of the age of the students, relevant to the course objectives, and consistent with the Division's approved curriculum and educational mission, vision and objectives. Staff shall preview the materials and sites they require or recommend students to

access in order to determine the appropriateness of the material contained on or accessed through the site. Staff shall provide guidelines and lists of resources to assist students in channeling their research activities effectively and properly. Staff shall assist their students in developing the skills to evaluate the truthfulness of information, distinguish fact from opinion, and engage in discussions about controversial issues while demonstrating tolerance and respect for those who hold divergent views.

XI. Acceptable and Unacceptable Use

A. Acceptable Use. Use of the Computer System shall be consistent with the educational vision and mission, approved curriculum, and work of the Division, as well as the varied instructional needs, learning styles, abilities, and developmental levels of students. Staff are to utilize the Computer system for educational purposes, legitimate school business, and performance of job duties. Incidental personal use of the Computer System is permitted as long as such use does not interfere with the staff member's job duties and performance, with system operations, or other system users. "Incidental personal use" is defined as use by an individual employee for occasional personal communications not occurring during instructional time and is not otherwise prohibited by this Policy.

B. Unacceptable Use. The following is a non-exhaustive list of examples of unacceptable uses of the Computer System:

1. Engaging in Illegal and other Unacceptable Activities. Users shall not use the Computer System to:
  - a. "Hack into" or otherwise access data not intended for the user, including, without limitation, logging into another user's account or otherwise obtaining another user's files or administrative data.
  - b. Make deliberate attempts to disrupt the Computer System or destroy data by spreading computer viruses or by any other means.
  - c. Send, receive, view or download illegal material, or engage in any other illegal act, including, without limitation, arranging for the sale or purchase of illegal drugs, alcohol or tobacco, engaging in criminal gang activity, or threatening the safety of another individual.
  - d. Access, upload, download, create, or distribute profane, pornographic, obscene, sexually explicit, or other illegal material.
  - e. Transmit profane, obscene, abusive, sexually explicit, or threatening language that could be characterized as bullying, harassing, prejudicial or discriminatory attacks, or is otherwise damaging to one's reputation.
  - f. Vandalize, damage, or disable the property of another individual or organization, including destroying data by creating or spreading viruses or by other means.

- g. Violate any other local, state, or federal law.
- h. Delete, erase or otherwise conceal any information stored on the Computer System that violates this Policy or at any time after being advised by an administrator or supervisor to preserve any materials stored on the Computer System.

2. Jeopardizing System Security

- a. Users are responsible for the use of their individual accounts and should take all reasonable precautions to prevent others from accessing their accounts. Under no conditions should a user provide password information to another person except as provided in this Policy.
- b. Users shall not alter system or network settings, circumvent the menu, password, or Internet filtering software installed on the Computer System, or change configurations (hardware and software), except under the direct supervision of technology staff.
- c. Users shall immediately notify the Director of Technology if they have identified a possible security problem.
- d. Users shall insure that the latest antivirus/antimalware software is installed and functioning on their personal electronic device when it is connected to the Computer System.

3. Using Inappropriate Language

- a. Restrictions against inappropriate language apply to messages and posts made on or through the Computer System, including without limitation public messages, private messages, email, and material posted on Division, school, and extracurricular organization webpages or related social media accounts.
- b. Users shall not use the Computer System to convey or otherwise disseminate obscene, profane, lewd, vulgar, rude, inflammatory, threatening, or disrespectful language.
- c. Users shall not use the Computer System to post or email information that, if acted upon, could cause damage or a danger of disruption.
- d. Users shall not use the Computer System to knowingly or recklessly post false or defamatory information about a person or organization.

4. Failure to Respect Privacy

- a. Users shall not use the Computer System to publicize a message that was sent to them privately without permission of the person who sent the message.
- b. Users shall not use the Computer System to post or email private information about themselves.
- c. Users shall not use the Computer System to disclose, use, or disseminate photographs and/or personal information regarding other people. Personal information is defined to include information such as a person's home address, telephone number, social security number, bank or credit card account number, log-in information or password.

5. Failure to Respect Resource Limits

- a. Staff shall not download large files on the Computer System unless absolutely necessary. If necessary, large files shall be downloaded only at a time when the Computer System is not being heavily used. All files downloaded shall be for educational purposes or legitimate school business. Students shall not download any files.
- b. Users shall not use the Computer System to post or email chain letters or to engage in "spamming." For purposes of this Policy, spamming is defined to include sending an unnecessary message, unrelated to educational purposes or legitimate school business, to a large number of people.
- c. Users may not use the Computer System to subscribe to discussion groups or e-mail lists, unless such groups or lists are relevant to an educational purpose or legitimate school business, including a specific assignment or for instructional purposes.
- d. Users shall not abuse or monopolize the Computer System for non-educational use.

6. Plagiarism and Copyright Infringement

- a. Users shall not plagiarize works found on the Computer System. Plagiarism is taking the ideas or writings of others and presenting such ideas or writings as if they were original to the user.
- b. Users shall respect the rights of copyright owners. The School Board Policy EGAA Reproduction of Copyright Materials applies to copyrighted materials accessed through the Computer System, as well as traditionally published materials. Copyright infringement occurs when an individual

inappropriately reproduces a work that is protected by a copyright. If a work contains language that specifies acceptable use of that work, the user should follow the expressed requirements. If users are unsure whether or not they can use a work, users should request permission from the copyright owner.

7. Student Acceptable Use of Email and Other Electronic Communication.

Student access to direct electronic communications, including e-mail, shall be made via a special account assigned to each student and used under staff supervision, provided that the following restrictions are met:

- a. Students shall not use the Computer System to post or e-mail personal or sensitive information about themselves or other people. This includes information such as the student's or another person's home address, telephone number, student ID number, bank or credit card account numbers, social security numbers, login information and passwords.
- b. Students shall not use the Computer System to meet with someone they have met online without their parent's or guardian's prior approval and participation.
- c. Students shall promptly disclose to their teacher or other school staff any message they receive that is inappropriate or makes them feel uncomfortable.

8. Staff Acceptable Use of Email and Other Electronic Communication

- a. **In General.** The Computer System provides opportunities for increased communication and collaboration for both students and staff. As students and staff are connected to the global community, their use of new tools and systems brings new responsibilities. Any electronic or online communications by staff with other staff, students and parents must be transparent, accessible to supervisors and parents, and professional in content and tone.

Electronic communications should not replace in person and telephone communication, which are better modes of communication for conveying meaning and context and should be used whenever possible.

Staff using electronic and online communication shall adhere to the following guidelines:

- i. Any staff member who has a reason to suspect that inappropriate communication is occurring between a staff member and student or among staff members shall report the matter immediately to their principal.

- ii. Staff members who correspond with students or parents via email must use only the Division's email system to receive or send email. Staff correspondence with students is strictly limited to school related content.
- iii. Staff members who correspond with other staff members about school related business must use only the Division's email system to receive or send email.
- iv. Staff should not include detailed student information in any email or document attached to an email. Staff shall not use or attach a document that reveals a social security number, biometric record, or student identification number that could be used directly or indirectly to gain access to education records. When referencing students, the email shall be limited to basic factual information and exchanged only between parties who have a legitimate educational interest in the information and in the student that is the subject of the correspondence.
- v. Electronic resources must never be used to discuss contentious, sensitive, emotional or highly confidential issues. These issues should be discussed in person or by phone. Emails should be short and directional in nature and only include objective factual information. Examples of such factual information are set forth in Section 8(B) below.
- vi. Staff members are responsible for all email sent from their account, and should take care to protect access to their account by keeping their password secret and by logging off when not using their account.
- vii. Electronic communication should be consistent with professional practices for other correspondence. This includes grammar, format and salutation.

**b. Acceptable uses of staff to parent email or other electronic communication. Examples of this acceptable use includes providing general information about class activities such as curriculum, homework, tests, special events and school announcements; making arrangements for meeting/telephone call regarding a student issue, including a general description of the issue; and following-up on an issue that has previously been discussed. Any discussion related to other students or staff members is not appropriate.**

**c. Acceptable uses of staff to student email or other electronic communication. Examples of this acceptable use includes discussions**

specifically related to class activities, such as curriculum, homework, tests, special events, and school announcements. There should be no discussion related to other students, discussion about the personal life of staff members or students, or sensitive information regarding the student's performance.

- d. **Establishment of social media accounts or accounts on educational sites for instructional purposes.** Staff may establish one or more social media accounts or accounts on educational websites solely for educational purposes. Staff must notify the building principal of their intent to establish such accounts and the building principal must approve and monitor each account. These accounts shall not be used for personal communications and are to be separate from staff members' personal social media accounts. Any such site shall have a clear statement of purpose and outcomes for the use of the account, and a code of conduct for all participants. The staff member establishing the account shall apply appropriate security and privacy settings, be responsible for the account's content, diligently monitor the account for inappropriate content, and post only information related to the account's purpose that is appropriate for viewing by students, parents and the community at large. Students should not be required to create a login in order to access or view the information. When appropriate, links to these accounts shall be posted on the school's webpage, as outlined in Policy CJA-Website Development and Management. Staff members are expected to read and understand all terms of service and privacy policies associated with the social media and educational site accounts they intend to use for instructional purposes.
  
- e. **Personal social media accounts.** Staff members are expected to be role models. Material posted on staff members' personal websites, accounts, and social media websites must model the behavior that staff members are expected to exhibit, as a role model, both on and off campus and school related activities. Inappropriate content, including without limitation, material that compromises a staff/student professional relationship or boundaries, messages and pictures that diminish a staff member's professionalism, discredits his/her capacity to maintain the respect of students and parents, or that impairs the ability of that staff member to serve as a role model for students, is prohibited. WPS expects the following in regards to personal electronic communications, use of social media, and other online communications:
  - i. WPS prohibits any students and staff members from establishing an online social media relationship through their personal social media websites. Interaction between staff and students on a social media websites must be for educational purposes only, as set forth in section XI(B)(8)(d) above.

- ii. Staff and students shall not use Internet resources that require the establishment of a student account or login that is not administrated or monitored by WPS.
- iii. Students appearing in individual or group photographs shall not be individually identified.
- iv. Staff shall not post comments about students.

XII. Non-Computer System Use. The School Board has no legal responsibility to regulate or review Internet messages, statements, postings, or acts either made off-campus or not made on, through, or in connection with the Computer System. The Division reserves the right to discipline students and staff for actions taken off-campus or independently of the Computer System, which would violate this Policy or other applicable School Board policies, regulations or directives if occurring on-campus or on, through, or in connection with the Computer System, if such actions adversely affect the safety, well-being, or performance of students while in school, on school buses, at school activities or school sponsored events, or coming to and from school; if such actions threaten violence against another student or staff member; if such actions violate local, state or federal law; or if such actions disrupt the learning environment, administration, or orderly conduct of the school.

XIII. Remote Access to the Computer System. All provisions of this policy apply when accessing the Computer System remotely or on-site.

XIV. Acceptable Computer System Use Agreement. Each staff member, student and/or parent/guardian of each student shall sign the Acceptable Computer System Use Agreement before using the Computer System. The failure of any staff member or student to follow the terms of the Agreement or this Policy may result in the loss of Computer System privileges, disciplinary action, and/or appropriate legal action.

X. Review. The School Board will review and amend, if necessary, this Policy every two years.

Adopted:

May 19, 2003, Revised September 6, 2005, September 5, 2006, October 1, 2007, August 16, 2010, March 14, 2011, January 6, 2014 subject to review & re-approval by December 31, 2014

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## **Appendix 4: Summary of Internet Safety Program**

Winchester Public Schools has offered internet safety training beginning with dial up internet access well over a decade ago. The program has grown and was formally approved over ten years ago and revised on a regular basis.

All components of the Acceptable Use Policy, including the internet safety components, are presented to new faculty and staff members during their initial technology training before receiving their account information. Technology resource teachers review the policy components during faculty meetings early each year and as a part of every technology in-service offering. Resources for students, parents, and teachers are posted on the school system's websites.

Professional development opportunities have been developed for each group of stakeholders. The evaluation process, primarily via surveys, focuses on the role of professional development in the level of effectiveness for Internet safety and community outreach programs.

Specific training and resources have been developed and/or provided based on needs assessments. Materials and resources are distributed to teachers and students grades K-12, posted in computer labs and classrooms, and made available on the system's and school's web pages.

Winchester Public Schools acknowledges that internet safety must be continually stressed and the program updated to cover the ever changing technology based environment students and staff members learn and work in. This need is emphasized as one of the four priorities under the goal of providing a safe, supportive, and nurturing learning environment in the revised Winchester Public Schools Comprehensive Six Year Plan. This major plan goal will:

- Increase awareness and implementation of cyber safety and the ethical use of technology for all students and school division personnel,
- Create and implement a revised curriculum guide for cyber safety and the ethical use of technology.

Winchester Public Schools will continue to work diligently to insure students and staff learn and work in the safest environment possible.

## **Winchester Public Schools Internet Safety**

In 1997, the Federal Communications Commission established the Universal Service Fund to guarantee that all schools and libraries had access to affordable Internet access regardless of location or economic condition. Only organizations that are compliant with CIPA can receive Universal Services funding.

The Children's Internet Protection Act was signed into law in December 2000. CIPA is designed to safeguard children against objectionable or harmful material on the Internet. CIPA amends the Elementary and Secondary Education Act of 1965 and the Communications Act of 1934. The amendments direct schools and libraries to have in place a policy of Internet safety and a technology-based method of blocking access to visual depictions on the Internet that are obscene, child pornography, or harmful to minors.

As of July 1, 2006, Virginia §22.1-70.2 requires Internet safety to be integrated within each school division's academic instructional program.

### **Introduction**

It is the policy of Winchester Public Schools to: (a) prevent user access over its computer network to, or transmission of, inappropriate and/or illegal material via the Internet, electronic mail, or other form of direct electronic communications; (b) prevent unauthorized access and other unlawful online activity; (c) prevent unauthorized online disclosures, use, or dissemination of personal identification information; and (d) comply with the Children's Internet Protection Act [Pub. L. No. 106-544 and 47 USC 254(h)].

Every two years, this policy is revised, approved by the Winchester City Schools board and then filed, by the division superintendent, with the Superintendent of Public Instruction as required by §18.2-390.

### **Definitions**

**TECHNOLOGY PROTECTION MEASURE.** The term "technology protection measure" means a specific technology that blocks or filters Internet access to visual depictions that are:

- a) obscene, as that term is defined in section 1460 of title 18, United States Code;
- b) child pornography, as that term is defined in section 2256 of title 18, United States Code; or
- c) harmful to minors.

**HARMFUL TO MINORS.** The term "harmful to minors" means any picture, image, graphic image file, or other visual depiction that:

- a) taken as a whole and with respect to minors, appeals to a prurient interest in nudity, sex, or excretion;
- b) depicts, describes, or represents, in a patently offensive way with respect to what is suitable for minors, an actual or simulated sexual act or sexual contact, actual or simulated normal or perverted sexual acts, or a lewd exhibition of the genitals; and
- c) taken as a whole, lacks serious literary, artistic, political, or scientific value as to minors.

SEXUAL ACT; SEXUAL CONTACT. The terms "sexual act" and "sexual contact" have the meanings given such terms in section 2246 of title 18, United States Code.  
 Subtitle A--Federal Funding for Educational Institution Computers

### **Access to Inappropriate Material**

To the extent practical, Winchester Public Schools shall take steps to promote the safety and security of users when accessing the online computer network and when using electronic communications. Specifically, as required by the Children's Internet Protection Act, prevention of inappropriate network usage includes: (a) unauthorized access, including so called "hacking" and other unlawful activities; and (b) unauthorized disclosure, use and dissemination of personal identification information regarding minors.

Through the implementation of an internal and external firewall and an Internet content filter, the Winchester Public Schools seeks to do the following:

- Prohibit use by division employees and students of the division's computer equipment and communications services for sending, receiving, viewing, or downloading illegal material via the Internet.
- Prevent access by students to material that the school division deems to be harmful to juveniles as defined in §18.2372.
- Filter or block access to child pornography as set out in §18.2-374.1:1 and obscenity as defined in §18.2-372.

Student access to direct electronic communications (e-mail) shall be granted via a class account assigned to each teacher and used only under the direct supervision of the teacher.

- Students shall not post personal contact information about themselves or other people. Personal contact information includes address, telephone, school address, work address, or a student's full name, etc.
- Students shall not agree to meet with someone they have met online without their parent's approval and participation.
- Students shall promptly disclose to their teacher or other school employee any message they receive that is inappropriate or makes them feel uncomfortable.

Winchester Public Schools takes steps, as deemed appropriate, to implement and enforce the division's Internet Safety Policy. The policy is presented, annually, to all employees and students who receive network access. It is also incorporated into the faculty handbook for each school. In addition, an affirmation screen is presented upon each network log in. The policy is also published on the WPS web site at <http://www/wps.k12.va.us>.

### Supervision and Monitoring

It shall be the responsibility of all members of the Winchester Public Schools staff to supervise and monitor usage of the online computer network and access to the Internet in accordance with this policy and the Children's Internet Protection Act.

Procedures for disabling or otherwise modifying any technology protection measures shall be the responsibility of the Director of Technology or a designated representative.

In implementing this policy, the Winchester Public Schools define the roles and responsibilities for division personnel as illustrated below:

Division Superintendent	Review AUP biannually and submit to the Superintendent of Public Instruction, after school board approval.
Directors of Instruction	Works with instructional staff and principals to integrate Internet safety program across the curriculum.
Director of Technology	Works with Director of Instruction and tech resource teachers to revise AUP bi-annually.
Technology Resource Teachers	Work to revise AUP on a bi-annual basis and serve as resource to teacher and principals to integrate Internet safety instruction across the curriculum.
Teachers / Instructional Staff	Teachers integrate Internet safety instruction across the curriculum.

The Winchester Public Schools are involved with teaching Internet safety to the community through the following:

- Outside speakers and Instructional Technology Resource Teachers provide Internet safety programs for Parent Teacher Organizations and parent meetings.
- Information is provided for parental communications such as newsletters.
- Online Internet safety resources are posted the Winchester Public Schools website.
- Share Internet safety resources with local libraries for their use.

Winchester Public Schools provides employees and students with access to a variety of instructional technology which includes computer hardware, software, and communication links, including Internet access.

The Winchester Public Schools telecomputing system has a limited educational purpose. The purpose of the Winchester Public Schools system is to assist in preparing students for success in life and work by providing them with electronic access to a wide range of information and the ability to communicate with people from throughout the world. Additionally, the system will be used to increase Winchester Public Schools intracommunication, enhance productivity, and assist Winchester Public Schools employees in upgrading their skills through greater exchange of information with their peers. The system will also assist the Winchester Public Schools in sharing information with the local community, including parents, government agencies, and businesses;

Users may not use the Winchester Public Schools telecomputing system for commercial purposes.

Users may not use the system for political lobbying or campaigning; i.e., mass electronic mailings or web postings or advertisements advocating support for a particular political position or candidate. Winchester Public Schools employees and students may use the e-mail system to communicate with their elected representatives and to express their opinion on political issues.

The term "educational purpose" includes use of the system for class assignments and professional or career development. Students must limit activities to the specific assignment at hand. The Winchester Public Schools shall cooperate fully with local, state, or federal officials in any investigation concerning or relating to any illegal activities conducted through the Winchester Public Schools system;

Students violating the provisions of the Winchester Public Schools *Acceptable Use Policy*, state or federal laws, or classroom or district rules shall be subject to the loss of access privileges and other student disciplinary actions as provided for by School Board policies. If the alleged violation of the AUP also involves a violation of other provisions of the student conduct code, the violation shall be handled in accordance with the applicable provision of the student conduct code;

Employees who violate provisions of the Winchester Public Schools *Acceptable Use Policy* shall be subject to disciplinary action in accordance with Winchester Public Schools personnel policy.

Winchester Public Schools maintains an emergency operations plan that ensures data integrity and resource availability. The plan includes details for data and email backup and retention. It also provides for essential access from an alternate site, if necessary.

The school system also works closely with the City of Winchester to maintain and secure personnel and financial information stored on city computers.

Web access and other use are regularly monitored by senior technology staff to help ensure student safety and compliance.

## **Professional Development**

All components of the *Acceptable Use Policy*, including the Internet safety components, are presented to new faculty and staff members during their initial technology training before receiving their account information. Technology Resource Teachers review the policy components during faculty meetings early each year and as a part of every technology in-service offering. Resources for students, parents, and teachers are posted on the school system's websites.

Professional development opportunities have been developed for each group of stakeholders. The evaluation process, primarily via surveys, focuses on the role of professional development in the level of effectiveness for Internet safety and community outreach programs.

Specific events and resources have been developed and/or provided based on a needs assessment. Materials and resources are distributed to teachers and students grades K-12, posted in computer labs and classrooms, and made available on the system's and the schools' web pages.

## **Examples of Activities**

- Internet Safety Tips included in morning announcements.
- Internet Safety "Do's" list posted in classrooms and all lab areas.
- Internet Safety Tips discussed by teachers and classes at the start of lab visits in all subject areas and grade levels.
- Internet Safety segment produced and aired on system's cable TV Channel.
- Internet safety PSA's produced and aired on school system's TV Channel.
- Training sessions conducted by Technology Resource Teachers for all new faculty and staff.
- Periodic reviews conducted at by Technology Resource Teachers at faculty meetings.
- Training sessions conducted by Technology Resource Teachers for parent and other community groups.
- Outside speakers (e.g., Virginia State Police, Attorney General's Office) provide Internet Safety presentations at open community meetings.
- Internet Safety resources organized and presented on system-wide and school web pages, including teacher resources.
- Internet safety materials and resources shared with local public library.

## **Adoption**

The Board of Winchester Public Schools adopted a revised AUP requiring integration of Internet Safety on March 14, 2011.

The AUP and Internet Safety program have been presented to and approved by the local school board. Activities have been implemented and will be evaluated on an annual basis by technology and instructional personnel as part of the ongoing review of the system's technology plan. Programs and policy will be adjusted as needed.

## Appendix 5: References

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