

2016-2018 Greenville County Technology Plan



Executive Summary

Providing access to and education in the use of emerging technologies is a paramount goal in the Greenville County Public School System. The essential skills necessary to be successful in reaching that goal include: information, media, technology and security. These skills include:

Information Literacy

- Assessing information efficiently and effectively. It includes evaluating information critically and competently, using information accurately and creatively for the issue at hand.
- Possessing a fundamental understanding of the ethical/legal issues surrounding the access and use of information.

Media Literacy

- Understanding how media messages are constructed, for what purposes and using which tools, characteristics and conventions.
- Examining how individuals interpret messages differently, how values and points of view are included or excluded and how media can influence beliefs and behaviors.
- Possessing a fundamental understanding of the ethical/legal issues surrounding the access and use of information.

Information, Communications, and Technology Literacy

- Using digital technology, communication tools and/or networks appropriately to access, manage, integrate, and create information in order to function in a knowledge economy.
- Using technology as a tool to research, organize, evaluate, and communicate information, and the possession of a fundamental understanding of the ethical/legal issues surrounding the access and the use of information. (Partnership for 21st Century Skills, 2007)

Technology Safety and Security Literacy

- Using technology in a manner that protects personal identity.
- Using social media in a safe and responsible manner.
- Using safe practices for communication across the web.

With these four components in mind, a framework has been developed that allows for the flexibility necessary for the ever changing world of education technology.

In developing the Greenville County Technology Plan, the Conceptual Framework introduced in the **2010-2015 Educational Technology Plan for Virginia and the 2015-2017 Addendum** were used as the foundation. The focus areas included are:

- Learning Environment – considering both physical and virtual environments in developing new and innovative ways to support the classroom and learning.

- Engagement – using technology to reflect student learning stages, diverse cultural backgrounds, and interests. To engage students in active learning.
- Application – helping students and teachers choose and apply the appropriate technology for communicating and problem-solving.
- Tools – to expand past the traditional classroom activities to extend student capabilities to perform tasks that would be difficult without the technology. These should be authentic tools, not simply school-based tools.
- Results – using data obtained to inform instruction. Use of data to support student self-evaluation.

The four key elements that are encompassed in all five goals of the framework are: accountability, support, professional development and curriculum.

Using the Greenville County Technology Needs Assessment and the Educational Technology Plan for Virginia and its addendum, a flexible, comprehensive plan that recognizes that technology plays a fundamental role in providing, extending, and enriching learning opportunities for all students and the learning community has been developed. As stated in the **2010 – 2015 Educational Technology Plan for Virginia and the 2015-2017 Addendum**, the plan permits ongoing changes, innovations and emerging technologies. The challenge for educators over the next two years is to help students identify and use tools to communicate, formulate and innovate. With is in mind, Greenville County Public Schools will continue to emphasize increased staff development opportunities that allow teachers to spend more time modeling creative thinking and showing how to probe information, rather than teaching facts.

This plan is designed to serve as a flexible framework for the utilization of technology with the division. It is the culmination of efforts of the Greenville County Technology Committee, a group of stakeholders made up of teachers, administrators, and technology staff members. The committee met to evaluate, recommend, and develop the strategies presented to the School Board in this plan. This committee included the following individuals:

Jane W. Lee, Coordinator of Instruction

Curtis Young, Director of Administrative Services

Greg South, Network Supervisor

Cynthia Whitaker, Director of Testing

Paige Crewe, Coordinator of Governance and Federal Programs

Tammie Parrott, Instructional Technology Resource Teacher

Ann Flynn, Instructional Technology Resource Teacher

Kathryn Slagle, Greenville County High School Teacher

Tabitha Owen, E. W. Wyatt Middle School Teacher

Terrell Nichols, Belfield Elementary School Teacher

Janet Owen, Greenville Elementary School Teacher

Division Vision Statement

Greenville County Public Schools will be a school division where all students achieve their full potential.

Technology Vision Statement

Greenville County Public Schools will prepare students with the skills necessary to make effective use of technology in their post-secondary education, careers and lives. Educators will use technology as a means to integrate problem-solving, critical thinking and decision-making skills in the learning process.

Division Mission Statement

The purpose of the Greenville County Public Schools is to continually improve the services of education.

Technology Mission Statement

To make effective use of technology for assessing, managing, and exchanging information, Greenville County Public Schools will empower students and employees by integrating technology into the daily teaching and learning process.

Process

To educate students in the 21st century, a school division cannot have a vision and mission without technology playing a major role. Greenville County Public Schools vision states that it is a division “where all students achieve their full potential.” This is not possible without a vision for technology. We are preparing our students not only for graduation, but for the world beyond, which will be significantly impacted by technology. With this in mind, Greenville County Public Schools is constantly incorporating new technologies which will help our students succeed both in school and beyond.

The division mission states that the purpose of the division is to “continually improve the services of education.” This mission must incorporate technology to allow the division to obtain data that is used to “continually improve the services of education.” The impact of technology empowers students and employees to see this improvement in the daily teaching and learning process.

The Greenville County Technology Committee began working in the fall of 2015. The first task at hand was to examine the Greenville County Technology Plan 2010-2015 and the Education Technology Plan for Virginia Addendum for 2015-2017 and determine their impact on the new Greenville County Technology Plan. In examining the documents it was obvious that the focus would remain on educational services and academic achievement. The former plan and the addendum were placed on Google Docs and suggestions were made for adjustments, deletions, and additions as necessary.

The committee reconvened during the winter to discuss the suggested changes and revise the plan to include elements from the addendum to ensure that all required components were included. The committee also made suggestions for professional development for new and emerging technology needs. The plan was adjusted to include these needs. The final meeting in April 2016, was used to review the document before submitting the plan to the School Board.

Because of the rapidly changing landscape of educational technology the 2015-2017 Greenville County Technology Plan is a living document that will be evaluated on a quarterly basis to determine if goals are being met and if new strategies need to be included.

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

Objective 1.1: Provide the technical infrastructure necessary to support formal and informal learning environments.

Strategy 1.1.1: Facilitate the implementation of 500 Mbps Wide-Area Network (WAN) connectivity and ubiquitous, high-speed wired and Wi-Fi networks in schools.

Evaluation Strategy: Direct observation of students' use of the internet. Use of LightSpeed to monitor student usage of internet resources.

Evidence of Impact: Monitoring the schools division wide to ensure the maintenance of the 500 Mbps connectivity.

Evidence of Impact: Work towards increasing the technical infrastructure within the schools from the current connectivity to the recommended SETDA connectivity for the 2017-2018 school year.

Strategy 1.1.2: Work with communities for robust and sustainable networks in and out of school buildings.

Evaluation Strategy: Monitor the available WiFi connections outside of the school buildings.

Evidence of Impact: Work to develop a list of community partnerships geared towards bringing robust and sustainable networks to localities.

Evidence of Impact: Work towards providing WiFi access for students afterschool on the school campuses.

Strategy 1.1.3: Require that all electronic and information technologies that are developed by the Virginia Department of Education must be accessible to people with disabilities based on Section 508 of the federal Rehabilitation Act.

Evaluation Strategy: Instructional Technology Resource Teachers will install software and train teachers of students with disabilities as new assistive technology emerges.

Objective 1.2: Greenville County Public Schools will provide the human infrastructure necessary to support formal and informal learning environments.

Strategy 1.2.1: Provide resource and support through Instructional Technology Resource Teachers (ITRT) to assist teachers in integrating technology into teaching and learning.

Evaluation Strategy: Continue to work toward providing a 1/1000 ITRT/student ratio.

Evidence of Impact: The technology proficiency of teachers, as measured by local technology competency instruments, increases from the 2014-15 school year to the 2017-18 school year.

Strategy 1.2.2: Provide real time technical and human infrastructure support through the Technology Help Desk.

Evaluation Strategy: The number of technical requests received by the technical support personnel.

Evidence of Impact: The number of requests received and answered through the Help Desk.

Evidence of Impact: Schools report that the timing between the occurrence of technical issues and resolution decreases.

Strategy 1.2.3: Review and Update the Technology Standards for Instructional Personnel (TSIP).

Evaluation Strategy: ITRTs train teachers during staff meetings and afterschool individual and group meetings to take advantage of the strengths of available tools for improving learning.

Evidence of Impact: Numbers of teachers attending training.

Evidence of Impact: Direct observation of use of strategies during instruction and through teacher lesson plans.

Evaluation Strategy: Use ITRT's housed in the schools to provide assistance with software and instructional learning programs

Strategy 1.2.4: Provide and support high-quality professional development focused on the acquisition and application of TSIP skills for teaching, learning, and school management through ITRTs, division-wide professional development or through cooperation with the Region 8 Educational Center or Southside Community College.

Evaluation Strategy: Number of teachers enrolled in professional development.

Objective 1.3: Develop sound policies and procedures for the acquisition and management of technologies.

Strategy 1.3.1: Employ both formal and informal means to communicate with schools within the division and to answer specific questions regarding policies and procedures for acquiring technology, including assistive technology.

Evaluation Strategy: All acquisitions will be made through the Division's technology team.

Evidence of Impact: Number of purchase orders evaluated by the technology team.

Goal 2: Greensville County Public Schools will engage students in meaningful curricular content through the purposeful and effective use of technology.

Objective 2.1: Deliver appropriate, rigorous, and challenging technology-enhanced curricula to support formal and informal learning experiences.

Strategy 2.1.1: Provide additional access to Virtual Virginia courses to promote greater flexibility and engagement.

Evaluation Strategy: Before and after each semester, analyze the number of students enrolled in courses offered through Virtual Virginia.

Strategy 2.1.2: Provide division-wide access to Web-based content, tools, and spaces such as: Moodle, Google Documents, Google Classroom, Web-site blogs, and Virtual Field Trips through the ITRT.

Evaluation Strategy: Documentation in lesson plans and classroom observations.

Strategy 2.1.3: Provide student access to Virginia Department of Education's web-based content, tools, and collaborative spaces to enable blended learning and informal learning initiatives including students with disabilities.

Evaluation Strategy: Monitor the frequency of access to web-based content.

Evaluation Strategy: Monitor the frequency of access to web-based content for disabled students.

Strategy 2.1.4: Math instruction will be enhanced using the Cortez Math Program at the middle and high school level and the A+ program with 5th grade. IXL, TenMarks, Allen Teachers BrainPop, Study Jams, and Study Island are used at the lower elementary level.

Evaluation Strategy: Reports of student progress, STAR, benchmark test results and SOL test scores.

Strategy 2.1.5: Instruction will be enhanced through the use of Study Island, BrainPop, practice SOL(Standards of Learning) test items, SOL Pass, Jefferson Lab, Educational Databases, and Discovery Education's Gizmos. PortaPortals are used to provide various websites for each grade level and department.

Evaluation Strategy: Reports of student progress, benchmark test results, and SOL test scores.

Strategy 2.1.6: Middle School U.S. History instruction will be enhanced using the Cortez History Program.

Evaluation Strategy: Reports of student progress, benchmark test results and SOL test scores.

Strategy 2.1.7: Provide online courses through Plato for students in alternative settings and students needing additional credits for on-time graduation.

Evaluation Strategy: Determining the number of students successfully completing online courses using Plato for verified credits.

Evaluation Strategy: Identify the number of students passing the SOL test after completing courses through Plato.

Strategy 2.1.8: Provide additional reading support for students, using the Fast ForWord Reading at the middle level which provides a reading intervention solution that increases processing efficiency and builds critical reading skills. Core Clicks and Learning A-Z are used to provide more resources for leveled reading. iPad applications are used in remedial classrooms for K-2 students.

Evaluation Strategy: The number of students documenting gains because of interventions provided through the programs.

Evaluation Strategy: The number of students showing significant gains on assessments such as PALS, STAR, benchmark test, and SOL tests.

Objective 2.2: Greenville County Public Schools provide resources to support personalized learning for all students.

Strategy 2.2.1: ITRTs will assist the schools in identifying and disseminating information and resources to evaluate technology and digital content for personalized instruction.

Evaluation Strategy: Observations of the use of alternative and assistive technology considerations during instruction or in lesson plans.

Strategy 2.2.2: ITRTs will collaborate with departments and individual teachers, providing resources to be used to enhance classroom use of technology.

Evaluation Strategy: Logs kept by ITRTs outlining support given to teachers and through classroom observations of instructional technology use.

Strategy 2.2.3: ITRTs will provide professional development support focusing on using digital resources to effectively personalize student learning.

Evaluation Strategy: Observations of the use of digital resources to effectively personalize student learning during instruction or in lesson plans.

Evaluation Strategy: The quantity and quality of professional development opportunities for teachers and administrators increases.

Goal 3: 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, such as a paperless classroom, thereby encouraging students to create, problem solve, communicate, collaborate, and use real-world skills by applying technology purposefully.

Strategy 3.1.1: Use the ITRTs to identify and disseminate information and resources that help provide ongoing, personalized, and “just in time” professional development for teachers implementing technological and pedagogical innovations.

Evaluation Strategy: Resources that have been identified, evidence through direct observation, and as noted in teacher lesson plans.

Strategy 3.1.2: Use the ITRTs to facilitate the enhancement of curricula using Internet resources and software, such as Google Apps, Google Docs, Microsoft applications, and various web-based Web 2.0 resources that encourage creativity, collaboration, and problem solving.

Evaluation Strategy: Direct classroom observations, teacher lesson plans, and evaluation of student artifacts.

Objective 3.2: Develop and evaluate technology policies to effectively balance the need for instructional innovation with safety and security.

Strategy 3.2.1: Identify and disseminate resources to help school boards and administrators develop and evaluate technology policies that effectively balance the need for instructional innovation with safety and security.

Evaluation Strategy: Create and implement a policy for evaluating websites and other media.

Strategy 3.2.2: Continue to locate and disseminate information concerning Internet Safety.

Evaluation Strategy: The number and quality of new material disseminated for use in the Internet Safety Program.

Strategy 3.2.3: Require every student and parent/guardian to sign and follow The Acceptable Use Policy (AUP).

Evaluation Strategy: Copy of signed AUP on file in schools.

Strategy 3.2.4: Use of filters and firewall, LightSpeed, to help protect students while using the Internet.

Evaluation Strategy: Internet statistics of websites blocked both by the software and manually by technicians.

Evaluation Strategy: The number of requests made by teachers and administrators to allow access to blocked web sites.

Strategy 3.2.5: Promote the safe and responsible use of social media by teaching appropriate practices for communicating across the web.

Evaluation Strategy: Teacher observations of students while using social media within the classroom.

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

Strategy 3.3.1: Use Interactive Achievement and other web-based assessments for benchmark testing.

Evaluation Strategy: Number of assessments administered and use of data from data for remediation and reteaching.

Strategy 3.3.2: Use of Interactive Achievement for teacher-made assessments, providing data for remediation and reteaching.

Evaluation Strategy: Number of assessments administered and use of data from data for remediation and reteaching.

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.

Objective 4.1: Actualize the ability of technology to individualize learning and provide equitable opportunities for all learners.

Strategy 4.1.1: Provide reasonable access to Internet-connected devices that offer students flexibility to learn anytime, anywhere.

Evaluation Strategy: Number of devices used and documented and observed use of such devices.

Strategy 4.1.2: Use computer labs for students to research and use productivity programs to create artifacts using technology.

Evaluation Strategy: Number of labs in use, documented use in lesson plans, and artifacts created using these resources.

Strategy 4.1.3: Expand the use of mobile computer carts in all schools, thereby extending the use of technology by students.

Evaluation Strategy: Number of mobile computer carts in use, documented use in lesson plans, and artifacts created using these devices.

Strategy 4.1.4: Expand the use of iPad and Chromebook cars where students use applications for developing student driven artifacts.

Evaluation Strategy: Products developed by students using applications, documentation of the availability of use in lesson plans, and the number of applications available to students use.

Strategy 4.1.5: Identify and disseminate information and resources to assist schools in evaluating the interactive and universal design features of hardware, software, and Internet sites.

Evaluation Strategy: Useful Internet sites posted on School Website and Portals, distributed by ITRTs.

Strategy 4.1.6: Develop a Needs Assessment tool to be used in all schools.

Evaluation Strategy: Compilation of data received from evaluation tool to drive future technology decisions.

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: Determine areas of opportunity for professional development through a needs assessment to provide and support high quality professional development that assists educators in evaluating and integrating technology tools in ways that foster effective student use.

Evaluation Strategy: The number of professional developments provided by vendors, staff, and ITRTs using local and acquired resources.

Strategy 4.2.2: Provide ongoing just-in-time support to assist teachers ineffectively integrating a variety of technology based tools into teaching and learning, such as Cortez math and history labs, student response systems, interactive devices, along with other tools and software.

Evaluation Strategy: Number of teachers requesting just-in-time support through the online help desk and as shown in ITRT logs.

Strategy 4.2.3: Provide timely and effective technical support to ensure that all tools and the network that supports them are installed and maintained properly.

Evaluation Strategy: Continuous diagnostics will be done to ensure that the network is properly maintained, with the assistance of ABS Technology Architects.

Evaluation Strategy: ITRTs and teachers will use the Help Desk to refer problems to the Technical Support department. Problems are handled as they are received by the department.

Strategy 4.2.4: Continue collaboration with Southside Community College, the Region 8 Educational Center Partnership, the Southside Virginia Regional Technology Consortium, and ITTIP through Longwood University in providing technology professional development through formal and online classes.

Evaluation Strategy: Maintain a record of the number of faculty enrolled in courses and participating in regional professional development.

Strategy 4.2.5: Continue implementation of Edivate to provide an on-demand library of professional teacher development resources that uses technology to make professional development learning more effective convenient and sustainable.

Evaluation Strategy: Feedback from Lead Teachers and Principals to determine the effectiveness of the program.

Evaluation Strategy: Reports and reflection questions provided by Edivate.

Evaluation Strategy: Changes and modifications observed during classroom observations.

Strategy 4.2.6: Continue the use of TalentEd, an instructional and leadership improvement system, which collects, manages, and reports longitudinal data from classroom walkthroughs and teacher observations.

Evaluation Strategy: Changes and modifications observed during classroom observations.

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: ITRTs and administrators will identify and disseminate information about new and emerging technologies, including software and assistive technology through training during staff department meetings and with email notices.

Evaluation Strategy: The number of new and emerging technologies that more effectively meet current and future needs introduced as evidenced in agendas and through email.

Strategy 4.3.2: Continue the implementation of pilot projects to evaluate new technologies.

Evaluation Strategy: Assessment of new technologies used will be done using benchmark data, SOL data, and anecdotal information

Strategy 4.3.3: Leverage partnership with Southside Virginia Community College to provide industry certifications with the use of technology delivery systems.

Evaluation Strategy: Number of students enrolled in certification classes.

Objective 4.4: Provide resources and support to ensure that every student has access to a personal computing device.

Strategy 4.4.1: Provide tools that extend a student's capabilities, can be customized to meet individual needs and preferences, and support learning.

Evaluation Strategy: The number of classes incorporating personal computing devices to facilitate a variety of artifacts produced by students.

Goal 5: Use technology to support a culture of data-driven decision making used to evaluate and improve teaching and learning.

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

Strategy 5.1.1: Complete an annual assessment of both laptop and Chromebook carts, along with desktop computers to ensure that an adequate number are available for Benchmark and SOL testing.

Evaluation Strategy: The number of computers accessible for online testing.

Strategy 5.1.2: Conduct local surveys to aid in annual strategic planning and purchases.

Evaluation Strategy: Results from the local survey and its effect on planning and purchases.

Strategy 5.1.3: Use data collected from annual surveys to plan yearly technology professional development for teachers.

Evaluation Strategy: Results of local survey and the number of new applications and tools introduced to faculty and staff.

Objective 5.2: Provide support to help teachers disaggregate, interpret, and use data to plan, improve, and differentiate instruction.

Strategy 5.2.1: Workshops will be provided by district level administrators at each school to show teachers how to use data supplied through the Benchmark Testing program.

Evaluation Strategy: Roster of teachers participating in initial workshops.

Strategy 5.2.2: Quarterly meetings will be held through departments and grade levels to evaluate and discuss data. Instruction will be analyzed based on data, making changes that improve both teaching and learning.

Evaluation Strategy: Classroom observations of changes made and through lesson plans.

Objective 5.3: Provide support to help students disaggregate, interpret, and use data for self-evaluation.

Strategy 5.3.1: Teachers will assist students in the use of data supplied through technology based assessments for self-evaluation.

Evaluation Strategy: Teacher observation of students' use of data to make informed decisions about adjustments in their learning behavior.

Objective 5.4: Promote the use of technology to support the design and implementation of next generation assessments.

Strategy 5.4.1: Design and implement pilot projects that support technology-based assessments rather than multiple choice questions.

Evaluation Strategy: The number of students realizing success on next-generation assessments.