



CHARLOTTE COUNTY PUBLIC SCHOOLS

Cultivating 21st Century Globally Competitive Student Leaders

Educational Technology Plan 2024-2029

Charlotte Court House, Virginia 23923



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Executive Summary

The Charlotte County School System strives for excellence and prides itself on providing a quality education to students in our division. Technology has been identified as an important component to enhance students' academic achievement. Our mission is to ensure students are technologically literate and will benefit from the impact of effective integration to expand and improve learning so they may develop their full potential and contribute to the changing world in a technology-supported information economy.

The plan recognizes that technology, when used effectively, can be a powerful tool. It is also clear that teachers and students must have access to a foundation level of current technology, training in its effective integration, and both technical and administrative support for the use of technology in their classrooms. A strong infrastructure is critical for access to educational resources and to support integration of educational technology in teaching, learning, and school management. Funding must be adequate to support the goals and objectives of the plan. Along with local and state support through the Web-based SOL Initiative, the division seeks funding through other grants and programs. Our commitment to technology is an essential component of quality education, which forms the basis for the goals and objectives of the plan in five areas: integration, professional development, connectivity, educational applications, and accountability.

The Technology Plan 2024-2029 for Charlotte County Public Schools (CCPS) supports the mission to empower every student with the knowledge and skills necessary to meet the challenges of 21st century learning. The plan also provides for an academically challenging, safe, and nurturing environment where all students, parents, and community members are active participants.

CCPS Vision

- The CCPS technology vision reflects national, state and local priorities on the belief that successful implementation, utilization, and integration of technology in the K-12 environment plays a vital role in the learning process to improve student achievement.
- The school division must ensure that all students, teachers, support staff, and administration are provided opportunities to develop the skills necessary to use technology effectively through state-of-the-art hardware and software, support personnel, and professional development.
- We envision an instructional program, which integrates technology into all aspects of teaching and learning. We expect teachers, administrators, and support staff to use technology seamlessly in planning, curriculum delivery, and assessment. Upon graduation, our students will have the knowledge and skills enabling them to use technology wisely and purposely as productive members in a technological society.
- We must equip all students with 21st century skills and provide a contextual, dynamic, and safe environment that is essential to student learning.

Highlights of Action:

Charlotte County Public Schools has conducted many needs assessments associated with the revision of this Technology Plan.

The following list has been identified as the most important technology needs for Charlotte County Public Schools.

- More training and staff development is needed with effective approaches for technology integration to improve student achievement.
- Maintain Technology support staff to effectively complete maintenance and repair of computer systems.
- Continue to provide a robust wireless infrastructure both inside our buildings and outside our buildings for students to have internet access on mobile devices.
- Continue to provide division-wide 1:1 student computer ratio at each school by supplying Chromebooks for grades Pre-K-12th.
- The county will continue to implement technology enhanced processes for sharing and collecting data using Office 365 or Google for Education Enterprise.
- Increase access to classroom instructional technology in each classroom in the district.
- Electronic Forms need to be implemented into the daily work within the county to increase efficiency.
- Transition CCPS policy manual to a consolidated format supporting ADA compliance.
- Increase core network switching to 10Gig per second backbone.
- Implement backup AC power support to handle extended power outages.

Enhance Personalized, Equitable Student Learning Experiences with Technology

Goal:

CCPS will promote and support student personalized, deeper learning experiences to demonstrate workplace readiness by creatively solving complex problems, thinking critically, collaborating, communicating and demonstrating responsible citizenship.

Resources/Partnerships:

Institutions of higher education, educational stakeholder groups, professional organizations, business and industry groups, and local school divisions to include: Southside Virginia Regional Technology Consortium (SVRTC), Microsoft, Southside Virginia Community College (SVCC), Virginia Technical and Engineering Education Association (VTEEA), Virtual Virginia, and Southern Virginia Higher Education Center (SVHEC).

Results:

- Students will develop deeper learning skills by leveraging technology as a resource or tool.
- Educators will use current and emerging technologies to increase opportunities for students to follow personalized learning pathways.
- Students will apply technology effectively to support the construction and application of content knowledge and skills.
- Students will demonstrate mastery in a variety of ways, including the use of technology through industry certifications. Examples- MOS, A+, WISE, TestOut, Work Place Readiness.

Indicators:

- Integrate survey to analyze technology based resources used by students and innovative learning experiences such as, but not limited to blended learning, project-based learning, and personalized learning.
- Collect information on the number of students enrolled in advanced coursework (e.g., dual enrollment, AP) internships, and mentorships or receiving industry certifications.
- Usage data in Office 365 and Google for Education will validate experiences.

Action:

- Research, vet, and develop digital resources for CCPS educators to assist in providing innovative, personalized and deeper learning experiences for all students.
- Develop and revise existing policy and guidance documents to support innovative learning experiences.
- Work collaboratively with teacher and technology stakeholders to create instructional resources, including local alternative assessments.
- Provide virtual learning tools that deliver multiple pathways for learning through blended and fully online models in ways that increase quality of education and equity for students.
- Promote in-school and out-of-school technology-based learning opportunities along with career exploration, exposure, and planning opportunities.
- Continue to provide technology and computer science cross-curricular connections starting in the elementary grades and across all disciplines to promote meaningful, real world applications of knowledge and skills and promote deeper learning opportunities aligned to the Virginia Standards of Learning.
- Prepare our students for a participatory culture by providing resources related to Internet safety, digital citizenship skills, and student awareness of and skills for personal and data privacy (as specified by the Code of Virginia § 22.1-70.20)
- Maintain 1:1 devices for all students and teachers.
- Provide assistive technology for increased accessibility as needed.
- Integrate Canvas Learning Management platform with Google Classroom to provide a custom learning environment for students and teachers.

Support Innovative Professional Learning with Technology

Goal:

CCPS will promote current and emerging technology-based resources that support educators in developing and employing innovative strategies and practices to encourage student-centric learning models to increase quality of education and equity for students.

Resources/Partnerships:

Institutions of higher education, educational stakeholder groups, professional organizations, business and industry groups, and local school divisions to include: SVRTC, Microsoft, SVCC, VTEEA, Virtual Virginia, SVHEC, Edgenuity.

Results:

- Educators will support personalized, deeper learning experiences that are enhanced through appropriate and meaningful technology integration.
- Through the use of technology supports (e.g., learning and/or content management systems, student information systems, adaptive technologies) educators will monitor students' progress to personalize learning and inform instructional practices.
- Educators will utilize the Instructional Leadership Team to support student engagement through technology in the classroom.
- Educators will understand how to enhance performance-based and alternative assessments through the intentional integration of technology.

Indicators:

- Educators will schedule and document professional learning opportunities.
- CCPS offers a number of professional online courses and resources to educators and documents the number of participant completers.
- Current and emerging technology-based resources used by educators as indicated by the Technology Usage Survey responses.
- Collect information on the number of students enrolled in advanced coursework (e.g., dual enrollment, AP) internships, and mentorships or receiving industry certifications.

Action:

- Educators will work collaboratively with technology stakeholders to create instructional resources that can be used by educators to support innovative learning experiences.
- Leaders will support the recruitment, development, and retention of knowledgeable and skilled teachers and school leaders.
- Leaders will promote in-school and out-of-school technology-based learning opportunities (such as pursuit of industry certifications, professional licenses, and dual enrollment courses) along with career exploration, exposure, and planning opportunities.
- Integrate the proficient use of technology into professional learning activities developed by CCPS and/or the Virginia Department of Education (VDOE).
- Through Region 8 Professional Development Council, Superintendents' Group, and SVRTC, CCPS will encourage and promote teacher education programs for the inclusion of technology skills that promote adaptation and integration of

current and emerging technologies into professional practices, the use of assistive technology, as well as a working knowledge of digital citizenship skills and issues.

- Provide information about assistive technology availability and uses through the Training and Technical Assistance Centers (TTAC).
- Support instruction in the development of rubrics and other evaluation tools for use with performance-based assessment that integrate technology.
- Coordinate and collaborate partnerships with professional organizations and local Region 8 school divisions to align agency professional learning goals to ensure targeted and strategic professional learning experiences in the area of instructional technology for teachers statewide.

Create Cultures of Change through Innovative Leadership Practices

Goal:

Promote leadership that supports deeper learning experiences for students and innovative instructional practices by educators through the use of technology.

Resources/Partnerships:

Institutions of higher education, educational stakeholder groups, professional organizations, business and industry groups, and local school divisions to include: SVRTC, Microsoft, SVCC, VTEEA, Virtual Virginia, SVHEC, Edgenuity.

Results:

- Educational leaders develop a vision for teaching and learning that includes the appropriate use of technology.
- Educational leaders are able to communicate and guide the implementation of division and school goals for teaching and learning that integrate technology and promote innovation.
- Educational leaders model tolerance for risk and experimentation and create a culture of trust and innovation.
- Educational leaders support, secure and advocate for resources to sustain technology initiatives and goals including those designed to support personalized learning environments.
- Educational Leaders promote the use of a variety of innovative instructional strategies and practices developed with current and emerging technology-based resources to support the innovative instructional approaches in the classroom.
- Educational leaders possess the capability to efficiently and effectively use technology in the performance of job duties (data-driven decision making, educator evaluations, communications).

Indicators:

- Types and numbers of professional learning opportunities are documented and recorded.
- Number of professional online courses and resources offered to educators and number of participant completers.
- Current and emerging technology-based resources used by leaders, schools, and/or divisions as indicated by the Technology Usage Survey responses.

Action:

- Provide guidelines for qualifications and hiring practices for all school leadership positions that reflect the need to have a deep understanding of the use of technology in learning and school operations.
- Provide opportunities (e.g. pilot projects, resources, etc.), within or between CCPS schools to implement and evaluate new technologies and instructional approaches.
- Promote and provide professional learning opportunities regarding educational technology leadership, research, and innovations in education.
- Promote the effective and efficient use of Instructional Leadership Team.
- Collaborate with other organizations to provide opportunities for leaders to meet, collaborate, and share ideas, resources, and effective practices, and to promote professional learning networks through social networking tools.
- Support the role of technology in CCPS to collect, monitor, and report achievement to inform practices surrounding continuous improvement efforts.

Secure and Robust Infrastructure

Goal:

Promote a secure and robust technology infrastructure to support access, adequacy, and equity.

Resources/Partnerships:

Institutions of higher education, educational stakeholder groups, professional organizations, business and industry groups, and other local school divisions to include: SVRTC, Microsoft, SVCC, VTEEA, Virtual Virginia, SVHEC, Edgenuity.

Results:

- Students, educators, and leaders have equitable access to secure and robust networks that provide high quality, reliable access to the Internet and other networks.
- CCPS uses best practices that comply with federal, state, and industry guidelines and recommendations to minimize network threats and vulnerabilities and protect educational data.
- Students, educators, and leaders have equitable access to computing devices and other digital resources, including assistive technologies.
- CCPS has access to technical and human resources that enable the effective evaluation of infrastructure costs and other considerations necessary for high quality and reliable access to the Internet and other networks used by students, educators, and leaders in innovative ways.

Indicators:

- Increased reporting of equitable and continuous access to secure and reliable networks by students, educators, and leaders as indicated by the Technology Usage Survey.
- Annual completion of Category 1 and Category 2 e-Rate application and reimbursement for qualifying expenses.
- Annual submission of the Virginia Public School Authority application and reimbursement for qualifying technology purchases.

Action: (see appendix A)

- Maintain the division 1:1 computing environment.
- Maintain the following comprehensive and effective systems: email/communication, student information system, learning management tools, assessment, library circulation, food service, transportation and emergency notification.
- Promote local participation in federal (such as e-Rate) and state (such as the Virginia Public School Authority) programs to maximize resources available to students, educators, and school leaders.
- Provide technical assistance such as network standards, recommendations, and other information available from various stakeholder organizations that provide guidance on interoperability and network capabilities.
- Replace current hardware with updated hardware such as Chromebooks, ActivPanels, etc.
- Continue to provide virtual reality and augmented reality experiences.
- Provide assistance to CCPS School Board and leaders on the development of plans and programs that balance security issues while allowing for instructional innovation.

- Provide evaluation criteria and standards that allow CCPS to make informed purchases of computing devices and other digital resources, including assistive technologies.
- CCPS will use evaluation criteria and standards for hardware and software adoption to include a focus on interactivity, personalization and universal design features.
- Ensure that assistive technology services and devices are implemented in accordance with the Individuals With Disabilities Education Act (IDEA).
- CCPS will comply with the efficient use of the technical support personnel required in the Standards of Quality (§ 22.1-253.13:2. Standard 2. Instructional, administrative, and support personnel – see J).

Internet Safety

Internet Safety for Staff and the Virginia Standards of Learning for Computer/Technology for Grades Pre-K - 12

C/T K-2.3 The student will practice responsible use of technology systems, information, and software.

- Know the school's rules for using computers.
- Understand the importance of protecting personal information or passwords.
- Understand the basic principles of the ownership of ideas.

C/T K-2.4 The student will use technology responsibly.

- Demonstrate respect for the rights of others while using computers.
- Understand the responsible use of equipment and resources.

C/T 3-5.3 The student will demonstrate knowledge of ethical, cultural, and societal issues related to technology.

- Identify how technology has changed society in areas such as communications, transportation, and the economy.
- Discuss ethical behaviors when using information and technology.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Appendix A

2024

New 14" Chromebooks for grades 6th-8th by July 2024

New 14" Chromebooks for two grade levels at RHHS by July 2024

Replace old smart charging carts with new ones at Phenix Elementary School by July 2024

New iPads to replace existing iPads at all schools by July 2024

New ActivPanels to replace older ones throughout school district by July 2024

Portable Sound systems for all schools by July 2024

New laptops for Secondary Teachers by July 2024

Update support staff technology hardware as needed

2025

New 11" Touch Screen Chromebooks for grades PreK-2nd classroom carts by July 2025

Recycle Chromebooks from 8th graders to rising 6th graders by July 2025

Recycle Chromebooks from 12 graders to rising 9th graders by July 2025

New ActivPanels to replace older ones throughout school district by July 2025

Wireless infrastructure (Access Points, Wireless Controller) upgrade in place by July 2025

Network Infrastructure upgrade (switches) by July 2025

New laptops for Elementary Teachers by July 2025

Update support staff technology hardware as needed

2026

New 14" Chromebooks to rising 6th graders by July 2026

New 14" Chromebooks to rising 9th graders by July 2026

New ActivPanels (partial refresh) to replace older ones throughout school district by July 2026

Update support staff technology hardware as needed

2027

New 11" Touch Screen Chromebooks for 3rd-5th grade classroom carts by July 2027

Recycle Chromebooks from 8th graders to rising 6th graders by July 2027

Recycle Chromebooks from 12 graders to rising 9th graders by July 2027

New ActivPanels to replace older ones throughout school district by July 2027

Update support staff technology hardware as needed

2028

New 14" Chromebooks to rising 6th graders by July 2028

New 14" Chromebooks to rising 9th graders by July 2028

New ActivPanels to replace older ones throughout school district by July 2028

New laptops for Secondary Teachers by July 2028

New All-In-One Desktops for CTE Lab at the high school by July 2028

Update support staff technology hardware as needed

2029

New 11" Touch Screen Chromebooks for grades PreK-2nd classroom carts by July 2029

Recycle Chromebooks from 8th graders to rising 6th graders by July 2029

Recycle Chromebooks from 12 graders to rising 9th graders by July 2029

New ActivPanels to replace older ones throughout school district by July 2029

New laptops for Elementary Teachers by July 2029

Update support staff technology hardware as needed