

Cumberland County Public Schools



Technology Plan 2022

Introduction

The CuCPS Technology Plan will carry out the mission statement, ensure compliance with the Every Student Succeeds Act, establish guidelines for technology instruction, and provide professional learning for teachers and administrators. The plan is reviewed and updated annually.

Mission:

CuCPS, in cooperation with family and community, will provide every student with the opportunity for a first class education in a safe, respectful environment. This first class education will ensure that students have the capability to utilize electronic media to access, retrieve, and make use of information. Students will have the ability to apply their technology skills to heighten professional goals as well as personal lives. Teachers will utilize electronic media – including computers, LCD projectors, streaming video, distance learning, DVDs, and interactive technologies – to provide students with the latest in information, classroom presentation, and job/future preparation.

Goal 1:

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.

Results (What do we want students to accomplish?)

- Students will develop deeper learning skills by leveraging technology as a resource or tool.
- Educators will leverage 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.
- Educators will expose all students to career and college opportunities including those in the technical fields to promote workplace and college readiness through advanced coursework, mentorships and internships.

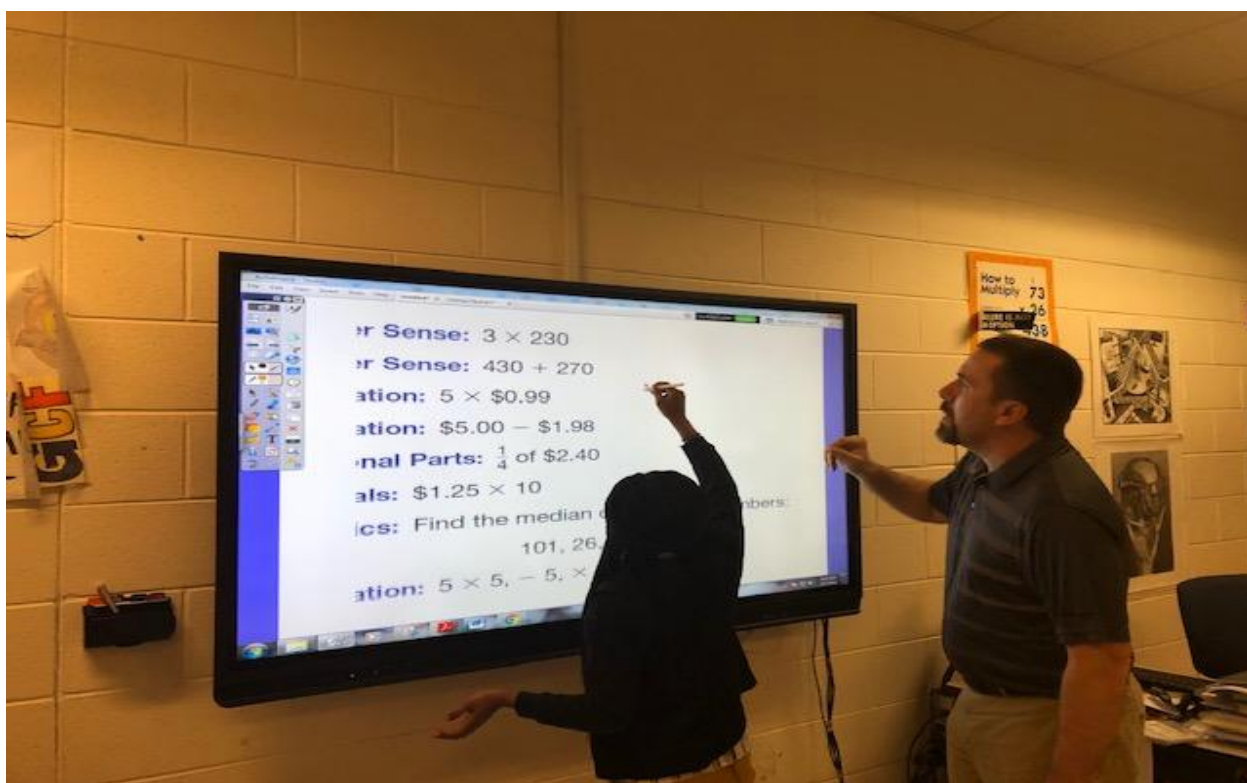
Indicators (What evidence will exist of completion?)

- An appropriate and challenging curricula through face-to-face, blended, and virtual learning environments will be offered.
- A part-time Career Coach will support students with workforce and college-readiness skills in areas involving technology.
- Opportunities for students to prepare for the workforce by prepping them in workforce readiness skills in both academic and CTE classes.

Actions (What action will be taken?)

- Offer a resource class (Go-Tech Lab) for students in grades PK-5 and 6-8 that enhances and supports the Virginia technology standards.
- Create a makerspace and STEM environment for elementary students (Little Dukes Discover).
- Continue to support teams such as Girls Who Code (elementary school).

- Provide opportunities for students to participate in virtual classes by expanding course selections through Virtual Virginia (Completion of an online course is required for graduation).
- Integrate Virginia's Technology Standards and Computer Science SOLs into all courses, beginning with Grade K.
- Utilize web-based content, tools, and collaborative spaces in online environments and physical spaces.
- Utilize the online course management systems, Google and Canvas, for the purpose of face-to-face or web-based instruction by high school and middle school teachers, and SeeSaw for elementary school teachers.
- Implement an E-Sports program for middle and high school students.
- Develop curricula that provide lessons which require the use of college and workplace readiness skills.
- Offer dual enrollment courses through Southside Virginia Community College, whereby students are able to meet face-to-face with an instructor, and also have access to online course management tools for student activities.
- Provide opportunities for course recovery, homebound instruction, remediation, and alternative school curriculum through Edgenuity.
- Utilize an online curriculum using Virtual Virginia to the greatest extent possible.
- Use available technology to implement and regularly revise authentic performance-based assessments and local alternative assessments to demonstrate student mastery.
- Continue implementing CTE certifications using technology that lead to career opportunities.
- Provide customizable tools which meet the individual needs and preferences of each student, while supporting learning and extending students' capabilities.



Goal 2:

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

Results (What do we want educators to accomplish for students?)

- Educators 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 utilize the instructional technology resource teacher model to support student engagement through technology in the classroom.
- Educators understand how to enhance performance-based and alternative assessments through the intentional integration of technology.

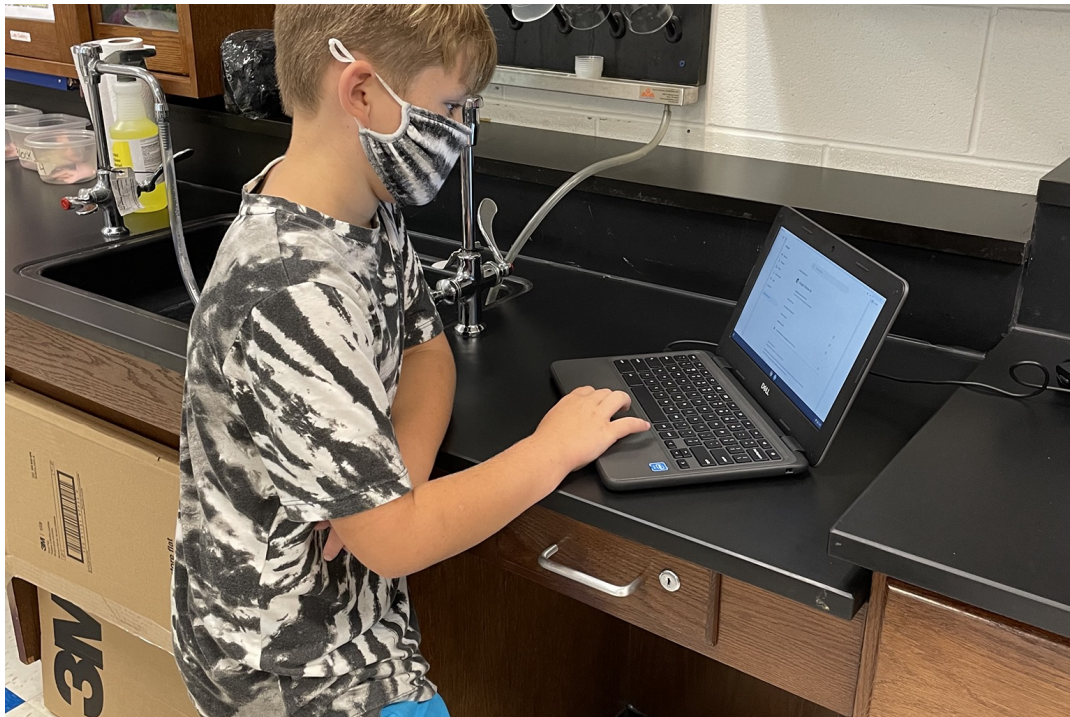
Indicators (What evidence will exist upon completion?)

- Innovative professional development for teachers that promotes the 5 C's, and includes promoting workplace and college readiness skills will be offered.
- Professional development that focuses on using student performance data and on teaching appropriate social media skills will be offered.
- Technology will be used to individualize learning and deliver equitable opportunities for all learners.
- Data will be utilized to provide information and adjust pedagogical support.

Actions (What action will be taken?)

- Utilize an electronic formative assessment program, such as Performance Matters, that will allow teachers and administrators to analyze student achievement.
- Utilize the online course management system, such as Google Classroom and/or Zoom, so middle and high school teachers have face-to-face or web-based instruction for students.
- Utilize SeeSaw for elementary school students and Major Clarity for middle school and high school students.
- Utilize resources that are part of the Open Source curriculum in Virginia.
- Utilize resources that are a part of the Virtual Virginia curriculum.
- Provide a part-time Career Coach to support teachers implementing lessons in workforce and college-readiness skills using available technology.
- Provide opportunities for students to learn and apply workplace-readiness skills in local and community settings using a variety of authentic tools.
- Provide learning experiences and assessment opportunities by means of student Information Technology competitions, wherein students utilize critical thinking skills to solve programming exercises and network design.

- Implement web-based writing assignments which simulate good writing practices and prepares students for writing assessments.
- Utilize an electronic gradebook for all teachers for the purpose of continually monitoring student performance.
- Design and implement pilot projects which support technology-based assessments, including simulations and gaming environments, innovative delivery platforms, and multiple other ways for students to demonstrate understanding.
- Review all benchmark and summative data, including data from online testing, to create an action plan to improve student learning.
- Promote the safe and responsible use of social media.



Goal 3:

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

Results (What do we want to accomplish?)

- 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, and more).
- Technology is included in technical assistance and school improvement resources provided by educational leaders based upon school and school division needs as determined by criteria such as Accreditation Matrix Performance Levels.

Indicators (What evidence will exist of completion?)

- Innovative professional development will support practices which encourage strategic growth for all educators, as well as collaboration with other educators, content experts, and students.
- Implementation of Internet safety programs.
- A subscription to GoGuardian to monitor student access to the World-Wide Web will be established.
- Professional development of teachers will be provided and supported in order to increase capacity to design and facilitate meaningful learning experiences which will encourage students to apply the 5 C's and utilize real-world skills by applying technology appropriately.
- Participation in the global community will be increased.
- Collaboration with the county administration will be established to share technology solutions.

Action (What action will be taken?)

- Facilitate the practice and delivery of innovative professional development in technology, and provide recertification points for PD which leads to strategic growth of incorporating technology into classes.
- Provide professional development workshops that focus on integration of technology in classrooms.
- Provide and support high-quality professional development to assist educators in evaluating and integrating technology tools in ways that foster effective student use and promote personalized learning experiences.
- Promote professional development for students and teachers by allowing access to online educational resources such as YouTube, TeacherTube, iTunes University, electronic databases, and educational websites.
- Provide technical and pedagogical support for teachers and administrators for using the student information system and other district databases which monitor and track student information and performance.
- Provide opportunities for staff to demonstrate the use of technology in the classroom.
- Provide access to institutions of higher learning and maintain an infrastructure that is robust and capable of supporting distance learning for students.
- Provide access to online resources which will assist teachers in having students create, store, showcase, and disseminate authentic projects.
- Maintain a teacher device initiative.

- Equip all classrooms with and maintain multimedia computers and projection devices.
- Provide reasonable access to Internet-connected devices that offer students the flexibility to learn anytime, anywhere.
- Annually replace chromebooks to maintain the division 1:1 initiative.
- Provide access to assistive technology solutions.
- Ensure the equitable distribution of technology hardware and software throughout the district.
- Continue the Microsoft and Google contracts for the latest products and ensure campus-wide availability.
- Provide a means for adequate communications among administrators, teachers, students, parents, and the community -- web pages and email groups.
- Establish partnerships with other institutions and organizations such as the Region 8 Technology group, SVRTC, VDOE, and the public library to provide educators with opportunities for growth, as well as corroboration with peers and subject matter experts.
- Provide ongoing opportunities for community members to participate in technology training, such as the tech-team's community-based program.
- Provide opportunities to showcase technology in the community.
- Model the use of data to inform strategic plans and purchases.
- Select and implement an electronic formative assessment program, such as PSAA, that will allow teachers and administrators to analyze student achievement.
- Establish benchmark dates for the accumulation of student progress report data from electronic benchmarking programs.
- Annually review and revise the Internet Safety Curriculum to ensure state guidelines are met.
- Identify and disseminate best practices, resources, and lesson plans which promote the integration of Internet safety and security.
- Offer a resource class for students in grades PK-5 and 6-8 that enhances and supports the Virginia technology standards.
- Conduct an Internet safety class to students prior to distribution of devices.
- Provide Internet Safety professional development for faculty members and provide opportunities for departments and grade levels to incorporate Internet Safety into their programs.
- Monitor Internet traffic in order to ensure Internet Safety and acceptable practices.
- Expand partnership with the Cumberland County Public Library on projects such as Internet Safety instruction and research skills development.
- Allow educators to access the global community by creating a network environment which provides them open access to social networking sites.
- Participate in the SVRTC Professional Development program for tech staff.
- Annually replace projection devices with panels until the school has newer projection equipment as a resource.
- Provide educators with cyber-security professional development to inform them of potential threats from the World-Wide Web.

Goal 4:

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

Results (What do we want to accomplish?)

- Students, educators, and leaders have equitable access to secure and robust networks that provide high quality, reliable access to the Internet and other networks.
- Schools use 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.
- School divisions have 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 (What evidence will exist of completion?)

- Technical and human infrastructure necessary to support real, blended, and virtual learning environments will be provided
- Capacity of technology to individualize learning and deliver equitable opportunities for all learners will be established
- A response and recovery plan that clearly outlines procedures and safeguards for data security and safety will be developed..
- Collaboration with outside resources on securing access to additional broadband services for the area will be explored.

Action (What action will be taken?)

- Provide division-wide access to web-based content, tools, and collaborative spaces such as computer labs and media.
- Maintain an electronic ticket system to request IT support and assistance.
- Utilize and maintain 2gb Internet connections
- Utilize and maintain all 802.11 N access points.
- Upgrade 10/100 switches as needed. (Recent updates occurred in all buildings)
- Follow a refresh plan for servers. (All servers were updated in July 2021)
- Maintain a robust network which is capable of providing online SOL testing for all students.
- Maintain an acceptable refresh rate of devices to keep the 1:1 initiative for all students.
- Provide professional development to the members of the IT and Human Resources departments to keep them apprised of all current, new, and upcoming technology trends and knowledge.
- Ensure that technology resources are capable of adequately supporting student education, and that sufficient and immediate assistance to faculty is provided, by achieving a satisfactory ratio of IT associates to students.
- Provide timely and effective technical support to ensure that all tools, as well as the network that supports them, are installed and maintained properly.
- Identify and disseminate information about new and emerging technologies.
- Maintain message retention of archived email.
- Develop a budget that allows for the purchase of necessary infrastructure to support data-driven decision making.
- Survey students and staff annually to determine the needs for professional development in technology.
- Survey community members to ascertain educational technology needs and interests of the community.

- Develop an ongoing schedule of technology integration workshops throughout the year.
- Continue utilization of the Google Workspace for Education Platform for integrating technology into the schools and classrooms.
- Use a cipa compliant filter for all school devices.
- Use an automated dialing system to keep parents informed of school events.
- Utilize a technology solution such as Fleet Tracking System to create optimal efficiency of bus routes in order to preserve gasoline use and expenses, as well as travel time.
- Implement an eGovernance system of providing school board member packets and information concerning minutes and documents.
- Outline appropriate steps for a response and recovery plan.
- Provide support and training for county personnel as requested and able.
- Join COSN (Consortium for School Networks).
- Implement data privacy agreements with third-party vendors.
- Develop a Disaster Recovery Plan for technology.
- Provide Cybersecurity Awareness training for all staff, using KnowBe4.
- Implement a two-factor authentication protocol and a stronger password requirement for all network users.
- Add additional security measures to the firewall for in/out bound traffic
- Support mobile device connectivity for users as needed.
- Upgrade software on new server systems to the most current version.

