EDUCATION TECHNOLOGY PLAN

VIRGINIA DEPARTMENT OF EDUCATION

Goal 1: Access

STRENGTHEN SCHOOLS AND COMMUNITIES WITH A SAFE, SECURE, AND ROBUST TECHNOLOGY INFRASTRUCTURE TO SUPPORT ACCESS TO ALL EDUCATORS, STUDENTS, LEADERS, AND FAMILIES.

1.1 Plan for scalable, sustainable technology infrastructure that can support current, innovative, and emerging technologies.

a. Survey stakeholders annually through a statewide initiative like Project Tomorrow's Speak Up Survey.
b. Educate school division leaders on next generation networks that pivot the network experience away from speeds, feeds, and capex requirements to outcome-focused, performance-driven, accessible service delivery networks.
c. Train school division staff responsible for E-rate to establish teams that oversee and manage the Federal E-rate program, and the Virginia Public School Authority (VPSA) technology notes program.
d. Encourage school divisions to create and maintain asset inventories.

1.2. Extend broadband services to unserved and underserved areas.

a. Provide communication to collect accurate and reliable data in the annual state Student Record Collection on Internet Access and Computing Devices.
b. Assist school division leadership in collaborations with local city and county leaders, and other strategic partners to achieve universal broadband.
c. Assist school divisions in the development of a comprehensive school division plan and map that outlines how the Internet will be accessed outside of school in case of an emergency or for other educational needs. The plan will include the locations in the community where families can access Wi-Fi.
d. Support the Department of Housing and Community Development, Office of Broadband, with state broadband initiatives that impact education.

1.3 Revamp and plan for implementation of systems which will increase access to data privacy, cybersecurity, and infrastructure.

  a. Design a guide that includes the selection, implementation, and evaluation of hardware and software.
  b. Bolster school division infrastructure systems by publishing best practices for technology infrastructure, technical support, maintaining a 1:1 computer device program, comprehensive cybersecurity, and school data privacy.
  c. Provide and support cybersecurity training opportunities.
  d. Engage with school division leaders in the Student Data Privacy Consortium.

Goal 2: Use

PROMOTE LEADERSHIP THAT SUPPORTS LEARNING EXPERIENCES FOR ALL STUDENTS THAT INTEGRATE INNOVATIVE INSTRUCTIONAL PRACTICES BY EDUCATORS THROUGH THE USE OF TECHNOLOGY AND ACCESSIBLE INSTRUCTIONAL MATERIALS.

2.1 Support an increased integration of the Computer Science and Digital Learning Integration Standards of Learning.

  a. Adopt and develop an actionable implementation plan for the 2024 K-12 Computer Science Standards of Learning.
  b. Develop organizational structures that identify personnel or a team responsible and accountable for providing instructional expertise, data collection, and educator support for full implementation of K-12 *Computer Science Standards of Learning*.
  c. Review the *Digital Learning Integration Standards of Learning* and develop an actionable implement plan for by SY 2027-2028.
  d. Build pathways of implementation that include goals for teaching and learning that integrates the appropriate use of different types of technologies including assistive and accessible technology and promotes innovation.
  e. Collaborate with educational partners to design and deploy computer science and digital learning integration professional learning opportunities for educators.
  f. Develop communication platforms to spotlight schools that create, adapt, and provide personal learning experiences that foster independent learning and opportunities for all students.

2.2 Promote the use of a variety of innovative instructional strategies, practices, and resources developed with current, emerging, and accessible technology-based resources to support the innovative instructional approaches in the classroom.

  a. Develop and recommend guidance that allows for the integration of artificial intelligence and holds expectations for academic integrity.
  b. Scale a high quality professional development model for preparing educators to teach students artificial intelligence skills. Educators, through virtual coursework, will learn to understand how AI technologies can be leveraged to facilitate learning and solve real-world problems, identify the various types of AI, and build tools to make AI concrete and accessible for students.
  c. Provide an artificial intelligence readiness guide.
  d. Continue to develop and distribute free resources for educators and students in GoOpenVA and eMedia.
  e. Create an instructional materials review process that includes the educational technology office, as well as someone knowledgeable about accessible and assistive technology, as part of the instructional content team.
  f. Support regional sets of educator training on standards, teaching full components of standards, and teaching challenging concepts effectively.

2.3 Support students, educators, leaders, and families with resources for the purpose of advancing the goal of safe use of media and technology.

a. Develop and recommend a model policy to better support the internet safety of all students and educators.
b. Model instructional practices and instructional content on the safe use of media and technology by students and educators.
c. Integrate resources related to successful instructional practices, curricula, and other educator resources for the safe use of media and technology by students and educators.

2.4 Leverage the power of Virtual Learning to enhance the availability, accessibility, and quality of online learning opportunities for students, educators, and other stakeholders.

a. Provide a Statewide Learning Management System (LMS) to support all educators and students in developing and accessing high quality and engaging content, multimedia, and communication.
b. Expand the use of effective virtual learning programs (e.g., Virtual Virginia, Multidivision Online Provider program, division-based virtual programs) to offer increased access to specialized curriculum and personalized, flexible instruction options to all students, regardless of geography or school division.
c. Design effective, flexible virtual learning professional development on data-focused instructional strategies and resources maximizing every student's learning experience and improving educational outcomes (e.g., attendance, testing, grades, AP scores).
d. Provide resources for students and families related to meaningful, personalized, and innovative virtual learning experiences.

Goal 3: Design

IMPLEMENT HIGH EXPECTATIONS FOR EVERY LEARNER USING EDUCATIONAL TECHNOLOGIES EXPLICITLY DESIGNED INTO RIGOROUS, BEST-IN-CLASS STANDARDS OF LEARNING.

3.1 Develop and maintain instructionally sound implementation of all educational technology resources and systems.

a. Support the *Best Practices for Instructional Technology Resource Educators* by creating micro-credential certification pathway for instructional technology resource educators.
b. Create places for the demonstration of personalized, deeper learning experiences that are enhanced through appropriate and meaningful technology integration.
c. Provide exemplars of an observation tool focused on educational technology to ensure instructional personnel stay current.
d. Support school divisions with appropriate applications that have been researched and explicitly designed as assistive and accessible technologies to ensure students have access to instructional independence.
e. Develop clear communities of practice for education leaders at all levels that act as a hub for setting vision, understanding research, and sharing practices.

3.2 Implement a framework for education technology integration for all students.

a. Create performance indicators that show student agency related to digital learning skills connected to content and careers in technical fields by providing students with meaningful, real-world learning experiences to promote workplace, citizenship, and college readiness skill development.

b. Enhance performance-based and alternative assessments through the intentional integration of assistive and accessible technology.
c. Move from transactional to transformative learning to foster student capacity for creativity, collaboration, communication, critical thinking, cognitive thinking, complex problem solving, and curiosity.

3.3 Leverage technology for students to take an active role in demonstrating competency in their learning goals, building networks to personalize education, and progress towards workplace readiness.

a. Recognize student leaders who take an active role in articulating, setting, strategizing, achieving, and demonstrating competency in their learning goals including building networks to customize learning environments, using technology to improve learning, and transfer knowledge across multiple content areas.
b. Develop more industry, standard aligned CTE Pathways for students.
c. Leverage current, emerging, and accessible technologies to increase opportunities for students to follow personalized learning pathways that lead to the workforce.
d. Work with school division technical support teams to develop and scale student internship opportunities in an effort to "grow your own" technical support personnel.

3.4 Support for division leaders for resources to sustain technology initiatives and goals including those designed to support personalized learning environments.

a. Move learning beyond the classroom by connections schools with museums, libraries, higher education, non-profits, and other organizations to connect students and educators with authentic, personalized learning experiences.
b. Lead efforts in spotlighting blended learning and other models of learning enabled by technology that allows for the reorganize of physical spaces to facilitate collaborative learning.
c. Promote leadership policy, purposeful pedagogy, and digital learning resources with instructional design goals and methods that support student voice and choice in the design of demonstrating learning through the active engagement of integrating educational technologies, including assistive and accessible technology, into every content through authentic learning experiences.
d. Provide educators with high quality professional development that strengthens instructional design that guide students through their personalized learning experiences that include research, experimentation, collaboration, and engagement through educational technology.
e. Create a network of instructional technology resource teachers and educators who are leaders in implementing assistive and accessible technologies and their use in supporting diverse students.
f. Strategize with educational technology leaders to create cooperative efforts between the information technology team and the instructional team including regular communication and collaboration.