

#TitanTech



**An instructional technology plan for the
Pembroke Public Schools 2023-24 through 2025-26**

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Mission, Vision, and Core Values

Mission

To ensure student achievement through excellence in teaching and learning.

Vision

We believe:

- In creating and maintaining safe and inviting schools;
- All children can learn and may demonstrate learning in different ways;
- Every student should contribute to our democratic society and the global community;
- In making decisions and acting in the best interest of students;
- Every member of the school community should be valued and respected;
- In a school community that is ethical, civil and respectful of individual differences;
- In strong civic, business and community partnerships that support student achievement.

Core Values

LEARNING ENVIRONMENT - To provide a safe physical, emotional, and social environment for teaching and learning.

ACHIEVEMENT - To produce high levels of student achievement through the development, coordination and implementation of rigorous curricula delivered through quality instruction.

INSTRUCTIONAL QUALITY - To create an environment where educational innovation and best practices are valued, practiced and evaluated.

DATA DRIVEN - To plan, monitor and inform instruction through the use of student achievement data.

COMMUNICATION - To enhance and strengthen open communication with all members of the community.

Introduction

As technology has been incorporated as one of the necessary tools for learning in the digital age, the Pembroke Public Schools recognizes the need for a new, comprehensive technology plan.

The goal of the plan is to ensure student growth and achievement through the integration of technology programs and teaching practices that will prepare our students for citizenship in a digital world.

Lessons based in Universal Design strategies minimize the digital divide by providing accessible and equitable access to all students. We embrace the use of technology to support teaching and learning through creativity, collaboration, communication, critical thinking and responsibility within our school community and beyond.

The framework for this document was made possible by the International Society for Technology Education (ISTE) and the Department of Elementary and Secondary Education (DESE) standards, as well as The Alliance for Excellence in Education through their Future Ready Schools Planning dashboard.

Essential Conditions for Effective Technology Use in Schools

The following seven critical elements are what ISTE considers the “essential conditions” for effectively leveraging technology to support learning. They offer educators and school leaders a research-backed framework to guide implementation of the ISTE Standards, technology planning and systemwide change.

These conditions reflect a deepening body of research in the field of educational technology as well as ISTE’s nearly 50 years of experience supporting districts, schools and educators as they work to support student learning.

Leveraging technology to effectively support student learning requires a research-backed framework that will guide technology planning and growth. ISTE Standards are the exemplar for the successful implementation of educational technology. At the core of these standards are the seven “essential conditions” that reflect the current research in the field of educational technology and ISTE’s nearly 50 years of experience supporting districts and schools as they work to support student learning. These include:

- Shared Vision
- Implementation Planning
- Equitable Access
- Prepared Educators
- Skilled and Sufficient Technical Support
- High Quality Learning Activities and Content
- Ongoing Evaluation

Shared Vision

A school system guided by a clearly defined vision for educational technology generates a community of understanding and collaboration that has the potential to propel the organization forward. This requires creating a shared vision for transforming student learning through the effective use of technology that is aligned to established, research-based standards and the interests, needs and capabilities of all stakeholders. Leaders must actively collect, incorporate, and share input from stakeholders at all levels including teachers, support staff, administrators, students, parents, teacher-preparation programs, policy makers and members of the community.

A shared vision that includes a plan for how technology is to be used and a set of criteria for measuring success helps schools and districts avoid costly errors in time, money and student growth when purchasing materials and building infrastructure. These types of issues are emblematic of visions developed in the absence of established standards or with a top-down or technology centric group that doesn't take into account how technology is experienced across the educational community from the classroom to the dinner table.

Community participation and partnerships are critical to long-term success. At the planning stage, aligning the initiative's vision to the community's shared values, policies and support structures can strengthen its ability to take root. At the implementation stage, successful schools and districts partner with local businesses and other organizations to secure additional resources for executing tangible goals related to an initiative.

Implementation Planning

A comprehensive plan is critical for building and sustaining technology infrastructure, purchasing devices, evaluating and selecting digital learning resources, and providing and sustaining professional learning and coaching. School systems that create a plan based on their shared vision are more likely to make better-informed decisions. Thorough planning provides filters for weighing important decisions during implementation based on key goals and objectives. It also defines points for measuring progress and responding to data.

Devices and bandwidth tend to fall short of current and future needs when decisions are made in the absence of a comprehensive plan. Plans for evaluation and selection of learning materials help prevent wasting resources, losing focus and hindering ability to evaluate effectiveness. Just as a future focused plan to provide effective bandwidth is essential for the smooth operation of technology resources, sustained professional learning is essential to ensure expensive tools are employed effectively.

A key part of any successful implementation plan is identifying funding to sustain digital learning initiatives. Implementation plans should establish policies and formal partnerships with other organizations to bolster expertise and funding.

Equitable Access

Schools and districts that provide equitable access to devices, internet connectivity and capable teachers find their technology initiatives narrow opportunity gaps among students. This is particularly evident among students such as those who require English language or special education services or are in temporary housing situations such as those experienced by foster or homeless students. It is therefore imperative to consider not only the number of devices and amount of bandwidth needed in school, but also how to involve families and caregivers in developing digital citizenship skills in creating a healthy tech culture in their homes.

Prepared Educators

Investments in systemic and sustained professional learning helps schools and districts operate effectively and safely according to the system's vision for learning, avoiding unregulated procurement and use of technology. This includes the evaluation of technology tools, ensuring those tools can improve learning, and ensure students have a strong digital citizenship foundation. Professional learning is essential for school and district leaders to make the best policy and budgeting decisions and for teachers to optimize student growth.

Edtech coaches who understand learning sciences and how to use technology in the most effective ways are at the center of preparing educators to implement technology in the classroom. Their understanding of the distinction between and the need for tool training (eg. how to use a particular learning platform) and foundational knowledge of how, when and why technology can improve learning goals prepares school systems to meet their vision of learning.

Skilled and Sufficient Technical Support

Successful school systems ensure appropriate support for teachers and students in the use of their digital tools. Technical support has a two-pronged approach: proactive, which includes evaluation of infrastructure, tools, and materials, as well as professional learning; technical support also must be reactive, as problems arise there is someone there to help resolve "in the moment" issues with connectivity, hardware and software glitches, accidents, and access to material. This includes being responsive to teachers and students in configuring digital tools to prioritize easy access and an intuitive user experience both in the physical classroom and in virtual spaces. Planning in this area will ensure technology leadership and technical support staff are capable of maintaining the learning infrastructure and providing technical support for learning.

High Quality Learning Activities and Content

Successful school systems understand that digital learning materials must be high-quality, research-based, and culturally inclusive. Open-licensed and traditional learning materials both have the ability to provide valuable resources for students. Open resources, which are free to schools and districts, require evaluation as quality and safety vary significantly. Benefits to these include the ability to access vast, crowd-sourced resources. Traditional learning materials can be costly, but provide professionally vetted and developed experiences that have been shown to benefit students with measurable outcomes. These schools and districts build processes to select high-quality digital learning content aligned to state standards and locally defined learning

objectives. These processes prioritize digital content and activities that are culturally responsive and support student agency, by allowing students to use their voice and choice when crafting assessment of a standard.

More concerning than a lack of digital learning content is an overabundance of poorly designed and unevaluated content and activities. A clear, vision-aligned plan for selecting and curating digital learning content and resources are critical to ensure high quality learning activities and content and avoid paying for apps and materials that have negligible and sometimes negative effects on learning. Selecting effective digital learning activities and content aligned to standards, and creating authentic and creative learning experiences that support the school system's vision for learning are paramount. This requires the knowledge of best practices in both the content area and educational technology to guide the selection of materials and careful vetting by all stakeholders with a well-developed evaluation instrument.

Ongoing Evaluation

Educational technology and the infrastructure that supports it are often outdated shortly after they are purchased and installed. Districts need processes and timelines for reviewing alignment, adequacy and effectiveness of their educational technology to ensure they are well-positioned and flexible to support future needs..

Effective technology evaluation processes have feedback loops that allow leaders to measure return on investment and inform course corrections as needed. They provide benchmarks against which teachers', students' and leaders' growth in implementing practices aligned to the ISTE Standards can be assessed. Additionally, approaches such as product evaluation through small group trials and cataloging and management of edtech contribute to an accurate, holistic picture of the initiative's success and help administrators pinpoint areas of strength and weakness. Tech leaders engage collaboratively with tech providers to improve the quality of products based on teacher and student feedback. Free or low-cost systems to evaluate technology use and measure return on investment help school systems purchase right-sized, future-ready educational technology that help teachers serve the students' best interests and reduce or eliminate unnecessary costs.

A Plan for Pembroke

Teaching and Learning

The Pembroke Public Schools is and will be a digitally safe environment of connected 21st century engaged learners. Teachers and students will know how to use technology to enhance mastery of in-class learning objectives and the development of transferable skills that students will employ beyond the schoolhouse gates.

Pembroke is well-positioned to support new levels of engagement by providing access to technology tools that allow students to create, design, and explore. There has been an increase in the number of devices available to our 2,600 PPS PreK-12 students and over 300 staff and teachers over the last 3 years from 1800 devices to over 3,500 devices. All PPS teachers have received professional development that supports their design of lessons using open source and traditional web-based tools that foster collaboration, critical thinking and problem-solving. Professional learning from workshops, weekly tech-tip emails and individualized support enhance their ability to create and implement engaging and effective learning opportunities.

Curated, traditional tools such as those found in the Google Workspace, Lexia, iReady, IXL, WeVideo, Flipgrid, NewsELA, Generation Genius, Brainpop, Edpuzzle, Savvas, and PearDeck are supporting students as they experience more rigorous learning design. Similarly, open-source resources such as PhET simulations, which are helping students achieve objectives while experiencing simulations created by world-class curriculum providers.

Teachers design, create and share technology rich lessons with their colleagues through staff meetings, common planning time and professional learning communities, teacher-led technology workshops, and out-of-district conferences, such as MassCue.

ISTE Essential Conditions - Implementation Planning, Prepared Educators, High Quality Learning Activities and Content

Action Steps	2022-2023	2023-2024	2024-2025	2025-2026
1. Promote global connections and communication in the classroom through the use of social media.	X	X	X	X
2. Design lessons that enable all students to meet grade-level DESE Technology Literacy Standards.			X	X
3. Provide collaborative opportunities for staff and students to share ideas and creations.	X	X	X	X
4. Provide on-going technology literacy training for teachers and students, including the latest in student data privacy.		X	X	X
5. Facilitate teacher-led workshops for peer-to-peer learning to enhance and empower our teachers as doers.	X	X	X	X
6. Provide on-going daily in-school support and professional development to all Pembroke educators and staff members.	X	X	X	X

Assessment and Data Management

The Pembroke Public Schools collects assessment data that is used to inform and improve instruction. PPS must secure and manage this data to protect our students' privacy and digital security.

PPS maximizes student outcomes by improving instruction based on the collection and analysis of student data from multiple sources. This includes a wide range of digital tools to assess student academic performance and their own practice. Data sources such as PowerSchool, Lexia, iReady, IXL, Edgenuity, Seesaw, Clever, Newsela, Savvas, Gale Database statistics (PHS), Sora e-Book stats on demand, and data provided from surveys demonstrate growth integrating technology into the classroom.

Administrators employ technology tools to assess program effectiveness, evaluate teacher performance, and reflect on school and district needs.

At the end of this plan, teacher leaders and administration will be able to accurately use and assess data management systems and take actionable steps to maximize student outcomes. After the funding rounds available due to the Covid19 Pandemic, edtech hardware and software was purchased and paid for via federal and state funding. With a wave of products suddenly available, it is now incumbent upon the district to implement this technology with robust support.

ISTE Essential Conditions - Shared Vision, Equitable Access, Ongoing Evaluation

Action Steps	2022-2023	2023-2024	2024-2025	2025-2026
1. Implement and utilize a data warehouse tool to assist in the garnering of information about student performance to be able to analyze, assess, evaluate each student.		X	X	X
2. Provide support to the Student Support Teams in the use of technology to collect, evaluate, and analyze data to improve decision-making and student outcomes.		X	X	X
3. Execute and analyze the results of a bi-annual survey of staff to measure technology comfort levels, use of technology, skill acquisition, and program effectiveness.	X	X	X	X

Professional Development

The Pembroke Public Schools provides staff with ongoing professional development in the use and integration of technology to improve instruction and student learning outcomes.

Pembroke Public Schools is committed to providing teachers with the necessary training and consistent support required to successfully implement technology into instructional practice and student learning activities, such as 3d printing across the curriculum, the creation of audio and video projects, as well as other multimedia formats. Our Director of Instructional Technology,

Digital Learning Specialist, Library Media Specialist, building-based Technology Integrators, administrators, teachers, and outside providers will provide these training sessions.

The Director of Instructional Technology and Digital Learning Specialist will increase teacher and administrative competency with technology integration, resulting in lesson plans developed together in a co-taught model. Teachers and administrators will be able to lead their colleagues in the use of multiple technology sources.

All new teachers will be prepared to use, integrate and access all technology systems necessary in daily teaching practice. Technology staff will develop a student-run Help Desk at the high school and middle school, where students at the help desk will become Google Level One certified. This level of certification will enable them to help students and teachers improve their use of the Google Workspace tools.

ISTE Essential Conditions - Implementation Planning, Prepared Educators, Skilled and Sufficient Technical Support, High Quality Learning Activities and Content

Action Steps	2022-2023	2023-2024	2024-2025	2025-2026
1. Provide effective technology training and support for all staff on how to integrate technology seamlessly across all content areas.	X	X	X	X
2. Develop and continually update instructional modules in Pembroke Schools Professional Development site so that all staff members have access to tutorials on how to use the latest technologies available to improve instruction and student learning.	X	X	X	X
3. On an annual basis, provide a technology orientation to newly hired staff members: PowerSchool, PPS email system, Google Workspace for Education, district tech subscription services, and policies/practices as they relate to the use of technology.	X	X	X	X
4. Provide teachers with training on how to integrate digital citizenship and cybersecurity curriculum into their instructional practice and student learning activities.	X	X	X	X
5. Provide professional development to Pembroke staff members on how to merge curriculum and technology (i.e. Boot Camp, EdCamp, Online training, f2f, Self-paced PD, courses etc).	X	X	X	X
6. Plan and facilitate Technology Open Houses and Parent Technology Workshops. Develop incentives to increase/promote parent participation.		X	X	X
7. Grow and maintain the Student Help Desk to become a high school level course. Students who staff the Help Desk will provide teachers and other students with help in resolving technical issues as well as provide training and tutorials on technology tools.		X	X	X
8. Create Google Certified Educator/Administrator Cohort for each school in order for staff to gain additional skills and support each other.			X	X

Infrastructure and Access

The Pembroke Public Schools will provide and maintain an infrastructure that provides equity of access to technology as well as efficiency in the use of technology for all staff members and students so that learning can take place anytime/anywhere.

Pembroke Public Schools currently provides all teachers and students with the tools needed to make technology a ubiquitous part of learning. Students in grades kindergarten through twelve have 1:1 access to iPad or Chromebook devices. Wireless access points have been installed strategically in all buildings across the district, and all devices are managed and monitored remotely by district staff. Broadband access was increased to support the increase in informational technology demands. Further redundancy is needed so if one system goes down, a backup is in place to insure no loss of productivity. The technology department will also transition from a physical print server to a cloud-based environment, allowing for device agnostic printing and maximum uptime.

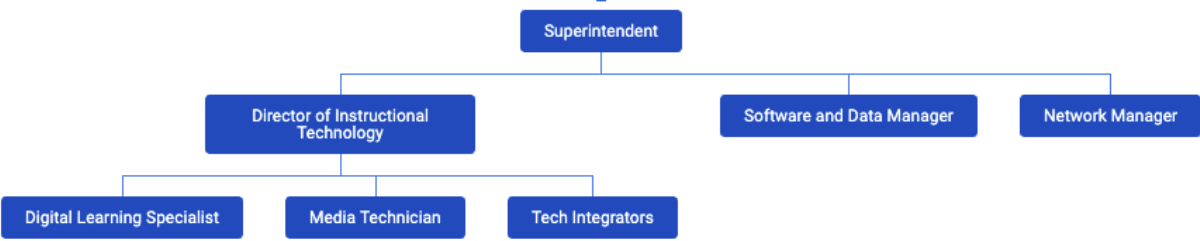
ISTE Essential Conditions - Implementation Planning, Equitable Access, Skilled and Sufficient Technical Support, Ongoing Evaluation

Action Steps	2022-2023	2023-2024	2024-2025	2025-2026
1. Provide projection systems (including sound) for use in all academic classrooms and shared spaces in the district.	X	X	X	X
2. Instill robust use of Internet and cloud-based applications while decreasing reliance on installed software.	X	X	X	X
3. Provide state-of-the-art applications to enhance instruction, learning, and data management.	X	X	X	X
4. Utilize a monitoring/filtering solution on premises to ensure a safe online learning environment for our students, and off premises to remain compliant with federal law, such as GoGuardian.	X	X	X	X
5. Develop a 1:1 environment for grades Pre Kindergarten - Grade 12.			X	X
6. Provide high-speed Internet in school. Provide information about Internet options to families to increase equitable access outside the school building.	X	X	X	X
7. Redesign and modernize the School Libraries to create a 21st century learning space to implement a consistent, equitable experience.		X	X	X
8. Assess and upgrade wireless and fixed network access on an annual basis to ensure bandwidth demands are met using Wyebot sensors..	X	X	X	X
9. Evaluate annually the life expectancy of all wireless and fixed devices, using e-Rate funding as a driver of infrastructure refresh: wireless, network, firewall, and domain controller upgrades	X	X	X	X
10. Transition our printing over to a cloud based, device agnostic printing platform, allowing all students and staff the ability to connect to any printer available to their group, but at the same time monitor usage statistics and adjust supply levels accordingly.		X	X	X

11. Upgrade Access Points (APs) as they come end-of-life as well as move to a cloud controller to improve effectiveness of the APs.	X	X	X	X
12. Refresh iPad fleet for students in grades PreK-1 as they reach end of life in 2026			X	X
13. Refresh Chromebook fleet for students entering grade six as part of our 1:1 program as well as for Chromebooks reaching end of life in 2027.	200	400	400	400
14. Ensure teachers have the proper teaching tools with new laptops as devices reach end-of-life			130	130
15. Ensure our support staff have the proper tools to work directly with students, purchasing new 14" Chromebooks or equivalent.			60	
16. Support our staff and students' safety with the latest security cameras and an emergency alert system application		X	X	X

Support and Organization

As of the Fall of 2022, the technology department consists of a 1.0 Director of Instructional Technology, a 1.0 software and data manager, a 1.0 network manager, a 1.0 digital learning specialist, a 1.0 media technician, and 5 highly skilled teachers who serve as technology integrators so each school has a local resource that understands the needs and abilities of their colleagues and schools, paid via stipend.

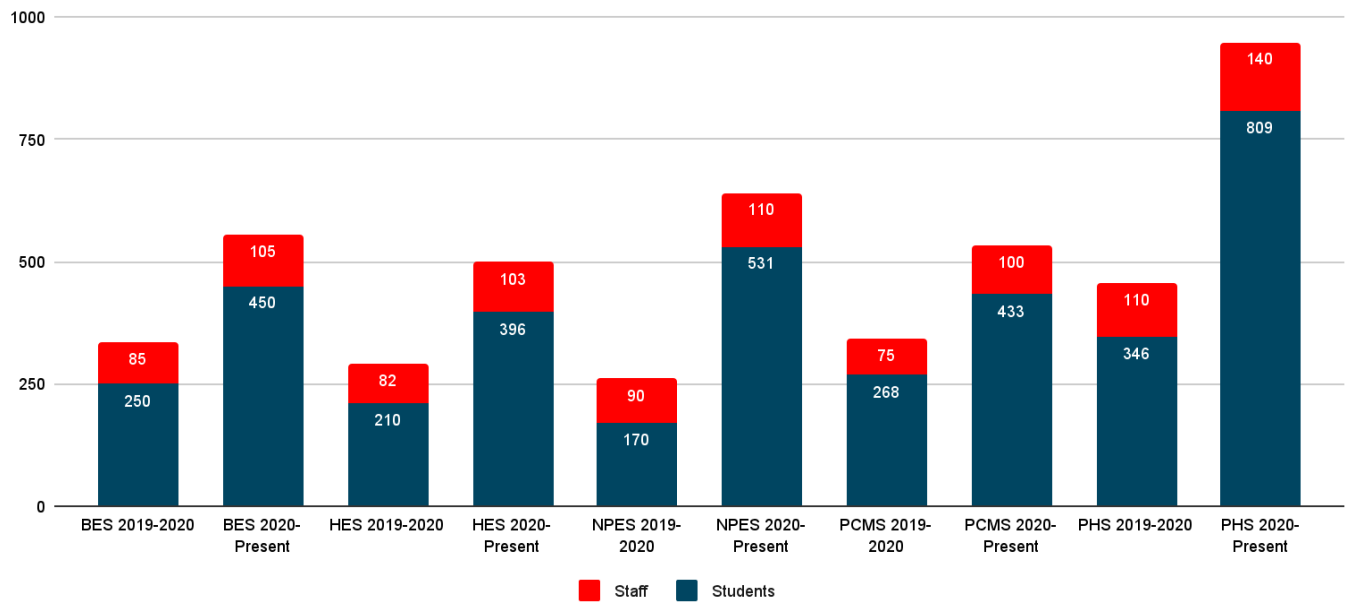


The Pembroke Public Schools will maintain a Technology Department appropriately staffed to ensure the technology needs of all staff members and students are met. The Technology Department provides technical support to staff and students, model sound instructional technology practices, and designs professional development for administrators, teachers, paraprofessionals, and substitutes. Separately, technology department staff are providing support for parents and students remotely, as well as planned parent academies on topics like student social media use, internet safety, and digital citizenship. Information from the Technology Department is disseminated via e-mail, the district website, Twitter, Instagram, and face-to-face events.

The expansion from 1800 devices in 2019 to well over 3500 units between staff and students in 2022, requires the addition of a Junior Network Administrator. The Junior Network Administrator will work in conjunction and under the guidance of the Network Manager on projects and daily operations such as server and client virtualization, implementation and support of backups, and recoveries, maintenance and support of Google Apps for Education accounts, email, and

administration. The Junior Network Administrator will also offer research and recommendations on all technology systems equipment such as servers, software suites, and specific hardware upgrades and provide assistance with wireless implementation, maintenance, and support while serving as a team leader for application and hardware deployments and providing advanced support for Network Technicians.

Active devices per building, 2019-20 vs Current

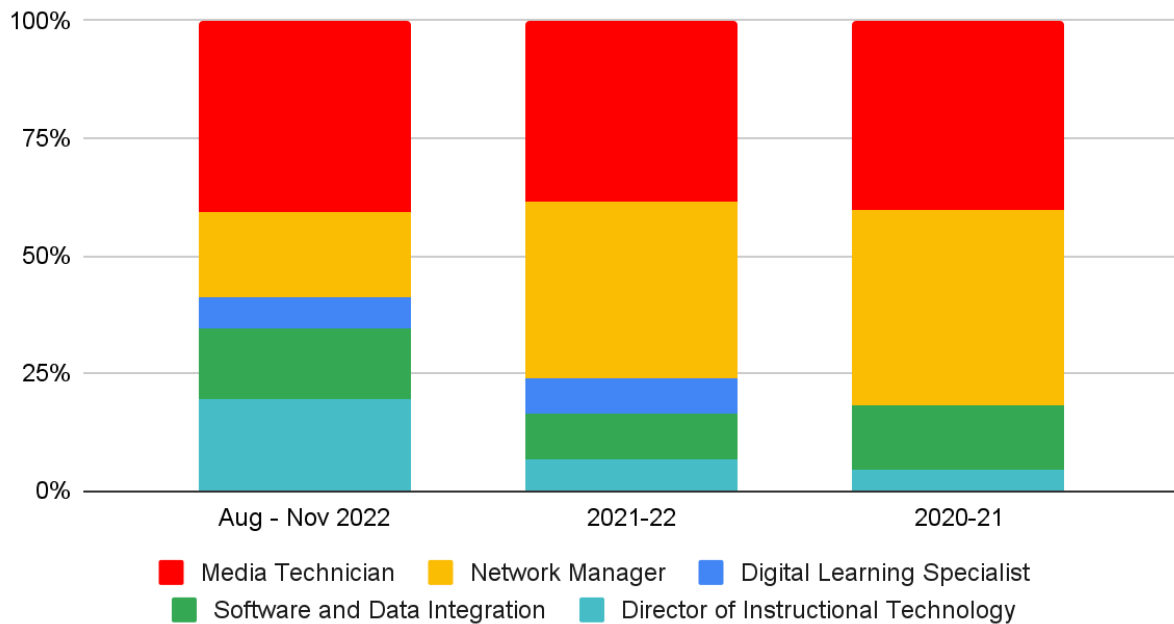


Historical work tickets completed by department position, 2020-2022

	Director of Instructional Technology	Software and Data Integration	Digital Learning Specialist	Network Manager	Media Tech
Aug - Nov 2022	143 / 100*	111 / 80*	50 / 50*	132	301
2021-22	114 / 82*	175 / 127*	134 / 134*	664	680
2020-21	69 / 23*	205 / 147*	NA	628	612

Tickets completed / * tickets completed outside of scope of current position and job description

Work Tickets by Position



A second full time digital learning specialist to cover the secondary level will allow our current digital learning specialist the time and flexibility to address the demands of all three elementary schools. This new team will significantly improve service levels across the district propelling the Pembroke Public Schools to a technology leader in Massachusetts, hosting walkthroughs on best practices by MassCUE and becoming a Google Reference District.

Communication to administration, teachers, parents and community members will increase in regards to technology use and vision in the schools with the use of the district website, newsletters, social media, and audio and video production.

ISTE Essential Conditions - Shared Vision, Implementation Planning, Skilled and Sufficient Technical Support, Ongoing Evaluation

Action Steps	2022-2023	2023-2024	2024-2025	2025-2026
1. Develop and maintain a robust District Technology Advisory Group to elicit input from stakeholders in our community. Made up of administrators, teachers, and students. Our District Technology Advisory Group will meet regularly to set goals, review practices, explore new technology opportunities, and make recommendations for improving technology-enhanced teaching and learning in the Pembroke Public Schools.			X	X
2. Disseminate the latest technology information and resources to students, staff and families through district websites, social media, e-newsletters, face-to-face events, e-mails and other digital media.	X	X	X	X

3. Provide district data management and academic applications that are web-based or cloud services. Facilitate robust use of Google Workspace and Apps for academic settings to allow for the scaling down on the use of installed software.	X	X	X	X
4. Employ two Digital Learning Specialists to support seamless technology integration PreK-12			X	X
5. Develop a junior network administrator position to better serve our ever expanding network and provide robust service to over 3500 devices.		X	X	X
6. Collaborate with the library media specialist and STREAM at each school to enhance the seamless integration of technology into teaching and learning.	X	X	X	X
7. Annually review/update the PPS District Technology Plan. Provide evidence of goals met/progress attained.		X	X	X
8. Develop an eSports program for competition, with pilot programs beginning in the 2022-23 school year at PCMS.	X	X	X	X

Summary

The seven “essential conditions” that reflect the current research in the field of educational technology supporting districts and schools as they work to support student learning are:

- Shared Vision
- Implementation Planning
- Equitable Access
- Prepared Educators
- Skilled and Sufficient Technical Support
- High Quality Learning Activities and Content
- Ongoing Evaluation

The Pembroke Public Schools are well positioned to be successful in the next three years based on ISTE’s Essential Conditions for Effective Use of Technology in Schools. With continued attention to network hardware replacement and management, a consistent refresh of staff and student devices on a set schedule, and particular attention paid to professional development, Pembroke Public Schools has ISTE’s “essential conditions” for effectively leveraging technology to support learning.

We are grateful to the Pembroke community for their ongoing support of our digital environment for teaching and learning. Through the collaborative efforts of our community, our School Committee, our leadership team, our teachers, our students, and our families, Pembroke is a leader in the use of educational technology.

Appendix

ISTE Technology Literacy and Technology Readiness

Instructional/Technology Area	Current	2022-2026 Goal
<p>Empowered Learner: <i>Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals.</i></p>	<p>Through the use of Google Tools including Google Classroom, teachers and students are learning the power of digital collaboration.</p>	<p>Teachers will create online learning communities where students can use digital tools to reflect on and bring transparency to their metacognitive processes.</p>
<p>Knowledge Curator: <i>Students make meaning for themselves and others by critically curating resources through the use of digital tools.</i></p>	<p>Teachers and students are exploring digital tools to become better researchers while making data, learning and knowledge more meaningful.</p>	<p>Using a variety of tools and strategies, Teachers and students will research, review and evaluate information to derive meaning from their findings and demonstrate understanding of an issue, field or problem.</p>
<p>Innovative Designer: <i>Students use a variety of technologies within a design process to solve problems by creating new, useful and/or imaginative solutions.</i></p>	<p>Through STREAM and Makerspace programs, students and teachers are more regularly exposed to the design process and learning the perseverance required to work through problems.</p>	<p>Teachers will guide students through the design process as they formulate ideas and plan to solve problems, innovate designs and create new concepts, processes or products using digital tools.</p>
<p>Computational Thinker: <i>Students identify authentic problems, work with data and employ algorithmic thinking to propose or automate solutions.</i></p>	<p>Authentic problems are being explored in courses at all levels and are more often included in many areas of the curriculum.</p>	<p>Teachers and students will identify authentic problems and explore strategies to address them as they collect, analyze and represent data and make conclusions. Using logical reasoning, students will understand how systems work and will identify crucial information needed to solve problems.</p>
<p>Creator and Communicator: <i>Students communicate clearly and express themselves creatively for a variety of purposes using the tools, styles, formats and digital media appropriate to their goals.</i></p>	<p>Through the use of Google Tools and other similar digital assets, teachers are giving students more opportunities to demonstrate understanding in a variety of ways.</p>	<p>Students will evaluate and publish media in a variety of formats to clearly express ideas and demonstrate understanding to an audience beyond their teacher.</p>
<p>Global Collaborator: <i>Students use digital tools to broaden their perspectives, increase empathy and understanding and work effectively in teams.</i></p>	<p>Students and teachers collaborate locally through the use of Google Tools and are learning to use other digital tools to collaborate globally within online environments.</p>	<p>Students and teachers will become local and global collaborators to develop varied perspectives and build cultural understanding while assuming various roles and responsibilities in order to work effectively toward a common goal.</p>
<p>Digital Citizen: <i>Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act in ways that are safe, legal, ethical and self-aware.</i></p>	<p>Teachers are modeling responsible and ethical use to make students more aware of the persistence of their own activity in the digital world.</p>	<p>Students and teachers model and practice safe, legal, ethical and responsible use of technology in the digital world in order to foster a positive digital identity and reputation. They understand the social, legal and ethical impact computing and technology has on our lives.</p>

Massachusetts Standards for Digital Literacy and Computer Science

Learning Progression				
Grade Spans	Strands			
K-2	Computing and Society [CAS] a. Safety and Security b. Ethics and Laws c. Interpersonal and Societal Impact	Digital Tools and Collaboration [DTC] a. Digital Tools b. Collaboration and Communication c. Research	Computing Systems [CS] a. Computing Devices b. Human and Computer Partnerships c. Networks d. Services	Computational Thinking [CT] a. Abstraction b. Algorithms c. Data d. Programming and Development e. Modeling and Simulation
3-6				
7-8				
9-12				
Practices				
Connecting, Creating, Abstracting, Analyzing, Communicating, Collaborating, Research				