



Mashpee Public Schools

Technology Department

District Technology Plan ***2015 - 2020***

(Presented to Mashpee School Committee on May 4, 2016)

Technology Department
500 Old Barnstable Road
Mashpee, MA 02649
508-539-3600
Fax 508-539-3607

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Mashpee Public Schools Technology Department Introduction

*Our **Vision** is that every Mashpee Public School student is prepared to excel in a global community and that every Mashpee educator effectively integrates technology into his/her instructional practice to improve student learning.*

*Our **Mission** is to provide rigorous academic curriculum where personalized learning is maximized through the use of technology. Our students are empowered with the knowledge, skills, and core values necessary to achieve personal success. Similarly, all staff members are empowered with the training and resources necessary to provide a technology-rich learning environment for all students and to effectively utilize technology to improve work efficiency and communication.*

We are committed to advancing student learning through the strategic integration of technology. Through student-centered lesson design, the Mashpee Public Schools is dedicated to providing each student with multiple ways to explore and acquire knowledge, to master creative and critical-thinking skills, to understand concepts in ways that foster a positive self-image, to question and understand the perspectives of others, and to present his/her own learning and opinions. These skills guide our students to be collaborative team members, creative problem-solvers, and responsible global citizens.

Teaching and Learning

Goal	The Mashpee Public Schools will be a digitally safe environment of connected 21st century engaged learners. Teachers and students will know how to use technology to enhance outcomes.
2015-2016	With 1,661 students working 1:1 in grades 3-12 and 3:1 in grades K-2 on over 2,000 mobile devices, Mashpee is well-positioned to support new levels of engagement and provide access to technology tools that allow students to create, design, and explore. Teachers in all schools are designing lessons using web-based tools that foster collaboration, critical thinking and problem-solving. Tools such as Google Tools, Explain Everything, Little Bird Tales, BoomWriter, Skype, etc. are supporting students as they experience more rigorous learning design.

Action Steps	Person(s) Responsible	2016-2017	2017-2018	2018-2019	2019-2020
1. Develop PreK-12 curriculum that promotes positive digital citizens and the development of healthy digital footprints	Instructional Technology Directors	X			
2. Implement PreK-12 curriculum that promotes positive digital citizens and the development of healthy digital footprints and provide ongoing support to teachers in the implementation of this curriculum.	Instructional Technology Directors and Teachers		X	X	X
3. Promote global connections and communication in the classroom through the use of social media.	Instructional Technology Directors and Teachers	X	X	X	X
4. Design lessons that enable all students to meet grade-level Technology Literacy Standards.	Instructional Technology Directors and Teachers	X	X	X	X
5. Provide collaborative opportunities for staff and students to share ideas and creations.	Instructional Technology Directors and Teachers	X	X	X	X
6. Provide on-going daily in-school support and professional development to all Mashpee educators and staff members.	Instructional Technology Directors	X	X	X	X
7. Provide on-going technology literacy training for teachers and students.	Instructional Technology Directors	X	X	X	X
8. Facilitate teacher-led workshops for peer-to-peer learning to enhance and empower our teachers as doers.	Instructional Technology Directors	X	X	X	X

Assessment and Data Management

Goal	The Mashpee Public Schools will collect and effectively manage student data from multiple sources in order to inform and improve instruction and to maximize student outcomes.
2015-2016	Mashpee Public School teachers are using a wide range of digital tools to assess student academic performance as well as to reflect on their own practice. Additionally, administrators are employing technology tools to assess program effectiveness, to evaluate teacher performance, and to reflect on school and district needs. Data sources such as DESE's Data Warehouse, Renaissance STAR, TeachPoint, Panorama, Google Forms, Quia, ConnectEd, and Survey Monkey provide us with information to analyze in order to make the best decisions. To support our MTSS framework, a web-based data management platform is being developed to merge multiple sources of student data into a central, single-sign-on location.

Action Steps	Person(s) Responsible	2016-2017	2017-2018	2018-2019	2019-2020
1. Facilitate annual administration of student and faculty surveys using software designed to garner feedback and share insights.	Instructional Technology Directors	X	X	X	X
2. Provide support to the School-Based Leadership Teams (SBLTs) in the use of technology to collect, evaluate, and analyze data to improve decision-making and student outcomes.	Instructional Technology Directors	X	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. https://goo.gl/E5c3xk	Instructional Technology Directors	X	X	X	X
4. Support Mashpee's MTSS framework by providing technical expertise and training to teachers and administrators in the effective utilization of a web-based data management platform that consolidates multiple sources of student data into a central, single-sign-on location.	Instructional Technology Directors	X	X	X	X

Professional Development

Goal	The Mashpee Public Schools will provide staff with ongoing professional development in the use and integration of technology to improve instruction and student learning outcomes.
2015-2016	Mashpee 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. Our Instructional Technology Directors, teachers, and outside providers provide these trainings. Using Google Classroom, we proudly offer a differentiated/blended learning model that meets a wide range of teacher needs while utilizing the same tools available for instructional design. To date, we have offered: Tech Tuesdays (after school), Bits & Bytes (lunchtime), Twitter Chats, Summer PD, Parent information nights, Student Google sessions, instructional guides, videos and tutorials as well as a host of online resources through our newsletter, website, email and Twitter account @TchEverlasting.

Action Steps	Person(s) Responsible	2016-2017	2017-2018	2018-2019	2019-2020
1. Provide effective technology training and support for all staff on how to integrate technology seamlessly across all content areas.	Instructional Technology Directors	X	X	X	X
2. Develop and continually update instructional modules in Google Classroom so that all staff members have access to tutorials on how to use the latest technologies available to improve instruction and student learning.	Instructional Technology Directors	X	X	X	X
3. On an annual basis, provide a technology orientation to newly hired staff members: PowerSchool, MPS e-mail system, Google Apps for Education, website development, policies/practices as they relate to the use of technology.	Instructional Technology Directors	X	X	X	X
4. Provide teachers with training on how to integrate the digital citizenship curriculum into their instructional practice and student learning activities.	Instructional Technology Directors		X	X	X
5. Provide professional development to Mashpee staff members during the summer on how to merge curriculum and technology (i.e. Boot Camp, EdCamp, Online trainings).	Instructional Technology Directors	X	X	X	X
6. Plan and facilitate Technology Open Houses and Parent Technology Workshops. Develop incentives to increase/promote parent participation.	Instructional Technology Directors	X	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 trainings and tutorials on technology tools.	Instructional Technology Directors and Students	X	X	X	X
8. Model the seamless integration of Universal Design practices with assistive technology in order to promote student success in an individualized learning environment.	Instructional Technology Directors	X	X	X	X

Infrastructure and Access

Goal	The Mashpee 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.
2015-2016	Mashpee Public Schools currently provides all teachers and students with the tools needed to make technology an ubiquitous part of learning. Students in grades three through twelve have 1:1 access to mobile devices, while students in Kindergarten through grade two enjoy a 3:1 ratio. Wireless access points have been installed strategically, and all devices are managed and monitored remotely.

Action Steps	Person(s) Responsible	2016-2017	2017-2018	2018-2019	2019-2020
1. Provide projection systems (including sound) and document cameras for use in all academic classrooms.	Technology Director	X	X		
2. Instill robust use of Internet and cloud-based applications while decreasing reliance on licensed/installed software.	Technology Director	X	X		
3. Provide portable amplification systems in every classroom.	Technology Director	X	X	X	
4. Provide state-of-the-art hardware and applications to enhance instruction, learning, and data management.	Technology Director	X	X	X	X
5. Utilize a monitoring/filtering solution to ensure a safe online learning environment for our students.	Technology Director	X	X	X	X
6. Create and maintain a 1:1 environment for grades Kindergarten - Grade 2.	Technology Director	X	X	X	X
7. Provide high-speed Internet in school. Provide information about Internet options to families to increase equitable access outside the school building.	Technology Director	X	X	X	X
8. Redesign and modernize the Middle/High School Library to create a 21st century learning space.	Library Re-Design Committee	X			
9. Provide a direct connection to the network and Internet through wireless capabilities in all classrooms and meeting/event areas in each Mashpee school building.	Technology Director	X	X	X	X
10. Assess and upgrade wireless and fixed network access on an annual basis to ensure bandwidth demands are met.	Technology Director	X	X	X	X
11. Evaluate annually the life expectancy of all wireless and fixed devices.	Technology Director	X	X	X	X

Support and Organization

Goal	The Mashpee Public Schools will maintain a well-staffed Technology Department to ensure the technology needs of all staff members and students are met.
2015-2016	The MPS Technology Department is currently comprised of a Director of Technology, two Instructional Technology Directors and a Computer Technician. This team supports and manages a network of over 2,000 devices, provides technical support to staff, models sound instructional technology practices, and designs professional development for administrators, teachers, paraprofessionals, substitutes, students, and parents. Information from the Technology Department (Tech Everlasting) is disseminated via e-mail, website, Twitter, e-newsletter, and face-to-face events.

Action Steps	Person(s) Responsible	2016-2017	2017-2018	2018-2019	2019-2020
1. 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.	Instructional Technology Directors	X	X	X	X
2. Facilitate full conversion of student and staff data into PowerSchool to serve as the district database for information management and state reporting. Encourage parents to regularly access their child's performance through the PowerSchool portal. Implement web-based PowerTeacher/Gradebook.	Technology Director	X			
3. Provide district data management and academic applications that are web-based or cloud services. Facilitate robust use of Google Docs and Apps for academic settings to allow for the scaling down on the use of licensed/installed software.	Instructional Technology Directors and Technology Director	X	X	X	X
4. Employ an additional half-time computer technician to provide technical support.	Superintendent		X		
5. Collaborate with the library media specialist at each school to enhance the seamless integration of technology into teaching and learning.	Instructional Technology Directors	X	X	X	X
6. Coordinate STEM alignment, so that the areas of Science, Technology, Engineering and Mathematics are strongly and clearly integrated into instruction and student learning.	Instructional Technology Directors	X	X	X	X
7. Develop and maintain a robust Technology Advisory Group (TAG) to elicit input from stakeholders in our community. Made up of administrators, teachers, students, parents, community members, and business owners, our 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 Mashpee Public Schools.	Instructional Technology Directors and Technology Director	X	X	X	X
8. Annually review/update the MPS District Technology Plan. Provide evidence of goals met/progress attained.	Instructional Technology Directors and Technology Director	X	X	X	X

Summary

The Mashpee Public Schools use technology resources strategically to create a safe and collaborative learning environment that prepares students for life in an ever-changing digital world. Technology is a seamlessly integrated tool that enhances the efficiency of our daily work, improves instructional practices, allows for timely collection and analysis of data, and enriches student learning experiences. Staff and student access to this technology relies upon a dynamic and well-maintained network and wireless infrastructure.

Equipped with a thorough understanding of the web-based tools and web applications available to them, with experience using state-of-the-art devices, and with the prerequisite skills for the effective use thereof, our students are able to apply and demonstrate 21st century skills in their learning and in their lives. Our students are well-prepared to be responsible digital citizens.

We are grateful to the Mashpee 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, Mashpee is a leader in the use of educational technology.

ISTE Technology Literacy and Technology Readiness

https://docs.google.com/document/d/1r9KATQ_X6JPTuS0NxQS3LIAsC96UZr3wsUftg_RuYBM/edit?usp=sharing

Instructional/Technology Area	Current	2016-2020 Goal
<p>Empowered Learner: Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals.</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: Students make meaning for themselves and others by critically curating resources through the use of digital tools.</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: Students use a variety of technologies within a design process to solve problems by creating new, useful and/or imaginative solutions.</p>	<p>Through STEM 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 concept, processes or products using digital tools.</p>
<p>Computational Thinker: Students identify authentic problems, work with data and employ algorithmic thinking to propose or automate solutions.</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: Students communicate clearly and express themselves creatively for a variety of purposes using the tools, styles, formats and digital media appropriate to their goals.</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: Students use digital tools to broaden their perspectives, increase empathy and understanding and work effectively in teams.</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: 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.</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>

Proposed Massachusetts Standards for Digital Literacy and Computer Science:

<http://www.doe.mass.edu/stem/DLCS-StandardsDraft.pdf>