

# **Mansfield Public Schools Digital Learning & Technology Integration Plan**

**2018-2021**



*Inspire, Empower, and Engage*

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## Introduction

### **Technology Plan Creation Process**

The purpose for creating a new Digital Learning & Technology Integration Plan was driven by the completion of our 5 Year Strategic Technology Plan that ran from March 2012 to March 2017. After some initial research, it was discovered the previous plan was part of an expectation by the Department of Education that called for each school to submit a five-year plan with prescribed key focus areas. During the research process, we also learned the Department of Elementary and Secondary Education (DESE) no longer required schools to submit a five-year technology plan. In consultation with other districts, it was advised we create a three-year digital learning and technology integration plan that closely aligns and supports our current District Strategic Plan and teaching learning objectives. It is our intent that future Digital Learning & Technology Integration plans will be fully integrated into the District Strategic Plan and will no longer be a separate, stand-alone document. Just as technology and integration opportunities are not a separate add-on to our curriculum model, meaningful and focused digital learning opportunities will be a part of the learning experience of every student.

The following is a list of the steps taken to create this plan:

1. **Formation of Committee.** In February of 2018, a small working group was formed to review our expired District Technology Plan (2012-2017) and create a process for developing a new plan.
  
2. **Small Technology Working Group completed the following work:**
  - Reviewed ISTE Standards/MA Digital Literacy and Computer Science Standards (DLCS)
  - Reviewed State Every Student Succeeds Act (ESSA)
  - Reviewed the Common Core Standards
  - Completed a review of technology plans from other MA School Districts
  - Acquired a needs assessment survey tool from the Friday Institute
  - Gathered data on the current state of technology hardware and infrastructure in the school district
  - Formed a larger district committee - *Mansfield District Technology Advisory Committee*
  - Technology Working Group was responsible for facilitating the meetings of the *Mansfield District Technology Advisory Committee*
  - In March of 2018 a District Technology Advisory Committee was created and tasked with the following objective:

*Create a digital learning plan that outlines a vision for impactful technology integration in our school system and the action steps to achieve the vision.*

**3. District Technology Advisory Committee completed the following work:**

- Reviewed ISTE Standards/MA Digital Literacy and Computer Science Standards
- Reviewed expectations of the MA State Every Student Succeeds Act (ESSA)
- Reviewed most recent Mansfield Public Schools District Strategic Plan Mission/Vision
- Analyzed Staff Technology Needs Assessment Survey Results
- Reviewed other schools' technology plans
- Created a Mansfield Public Schools technology vision statement
- Created goals and action steps for three years
- Provided a recommendation on how the district can assess the impact of technology integration

**Committee Members**

Administrator	Michael Connolly	Assistant Superintendent of Teaching & Learning	*
Administrator	Lori Letendre	Director of Technology	*
Administrator	Tanna Jango	Robinson Elementary School Assistant Principal	
Administrator	John Nieratko	Jordan/Jackson Elementary School Principal	
Administrator	David McGovern	Qualters Middle School Principal	*
Staff	Joshua Rapoza	Digital Learning Specialist	*
Staff	Cailyn Pawlowski	Roland Green Preschool	
Staff	Paula Boylan	Robinson Elementary School	
Staff	Shawn O'Neill	Robinson Elementary School	
Staff	Rayna Freedman	Jordan/Jackson Elementary School	*
Staff	Caroline Shruhan	Jordan/Jackson Elementary School	
Staff	Ruth Crowley	Qualters Middle School	
Staff	Eric Shultz	Qualters Middle School	
Staff	Jacqueline Prester	Mansfield High School	
Staff	Ed Rodrigues	Mansfield High School	
Parent	Kate Farnham	Roland Green Preschool	
Parent	Deb Stratton	Robinson Elementary School	
Parent	Traci Mazur	Jordan/Jackson Elementary School	
Parent	Kim Zajac	Qualters Middle School	
Parent	Lauren Scher	Mansfield High School	

\*Indicates member of the small working group

# **Mansfield Public Schools Mission, Vision, and Core Belief Statements**

## **District Mission**

The mission of the Mansfield Public Schools is to provide a high-quality education to prepare all students to be lifelong learners and contributing citizens.

## **District Vision**

Our vision of the ideal school is one in which all students are actively and intellectually engaged in their learning as a result of the instructional practices that are personalized, differentiated, innovative, and designed to challenge their thinking and understanding. The result of our collective efforts is for all students to achieve their personal best and become meaningful contributors to our society.

## **Guiding (Core) Beliefs of the Mansfield Public Schools**

*We believe:*

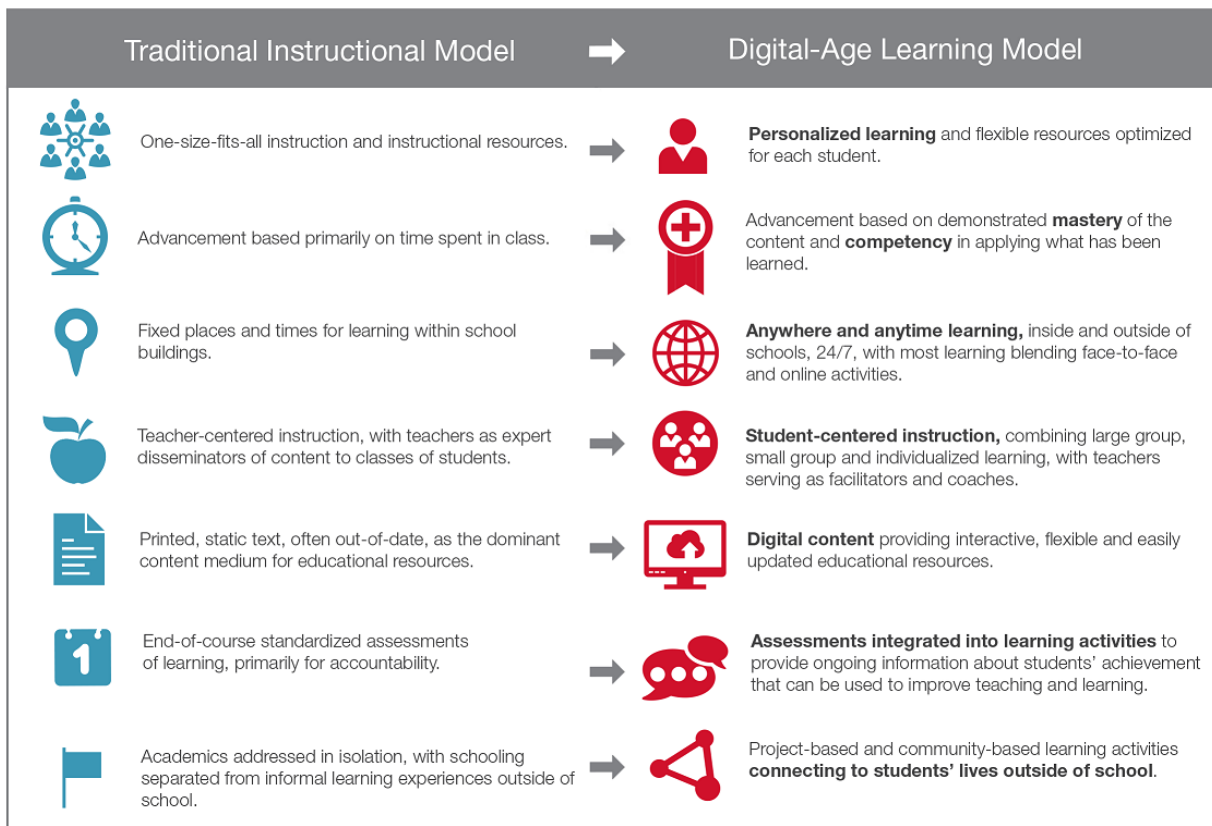
- Education must respond to the changing needs of society.
- Students come from a variety of backgrounds and bring diverse experiences into our schools.
- Access to and use of technology enhances teaching and learning.
- Educating the whole student requires a partnership among the schools, parents, and the community.
- Effective education is achieved through high standards and a clear vision of the future.
- Successful schools require continuous assessment and improvement.
- Education contributes to the emotional, physical, social, and academic development of a student.
- All students can be successful lifelong learners.
- A safe, healthy, and respectful learning community is essential.

## Digital Learning & Technology Integration Vision

Mansfield Public Schools is committed to combining best teaching practices with the power of digital tools to inspire, empower, and engage **all** students.

Schools are places of transformation. Even the definition of a classroom is changing. Thanks to advances in technology, a classroom is not only a physical space of learning, but also a digital space without walls and without a scheduled time for learning. Students can be connected to all corners of the earth with only a few clicks and experience a different culture and way of life firsthand. Learning is transitioning from a Traditional Instructional Model to a Digital Instructional Model. Technology is no longer a separate subject or a fun extension activity, it is an expected necessity.

According to the 2017 National Education Technology Plan Update, “To remain globally competitive and develop engaged citizens, our schools should weave 21st century competencies and expertise throughout the learning experience (pg. 10)”.



<http://www.hunt-institute.org/wp-content/uploads/2016/02/NC-plan.png>

The purposeful use of technology within our classrooms allows us not only to personalize student learning, but also to extend and amplify learning well beyond our classroom walls and the school day. According to our School Technology Needs Assessment (STNA), 69.9% of our teachers either agree or strongly agree that technology has increased their students' engagement in their own learning. Additionally, 64.7% of our teachers believe their teaching is more student-centered and interactive when technology is integrated into instruction. Technology is also a lever for deeper learning and greater student agency within schools. Well-designed learning allows students to be the owners of their learning. Using technology, students have a great deal more control over the where, how, what, and with whom they learn, while the teacher serves as an expert guide and provides timely and meaningful feedback to aid students in achieving their individual learning goals.

The digital learning vision and goals of this plan are a future representation of the educational environment we would like to create. The actions and activities are the steps we need to take over the next three years, in order for a solid foundation to be set in place on the journey to achieving our digital learning vision. Over the course of several years and subsequent strategic plans, we expect to see a transformation of our learning environment into one that matches the society and workplace our students will encounter in the future. This plan will be reviewed by the Technology Advisory Committee yearly to assess and evaluate our progress.

## Focus Areas & Goals Overview

Focus Area	Goals
<b>Learning</b>	<p>1: All learners will be engaged and empowered in a digitally rich, blended environment that prepares them to be ethical participants in a globally connected society. (Based on NETP Section 1: Learning pg. 9)</p> <p>2: All learners will be active constructors of knowledge, developing digital literacy skills guided by the MA Digital Literacy and Computer Science Framework (DLCS).</p>
<b>Teaching</b>	<p>3: Educators will be supported by technology that connects them to people, data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners. (Based on NETP Section 2: Teaching pg. 28)</p> <p>4: All educators will be active constructors of knowledge, developing skills guided by the Massachusetts Digital Literacy and Computer Science Standards and the ISTE Standards for Educators.</p>
<b>Leadership</b>	<p>5: Model effective digital learning techniques that support the district’s vision for digital learning where innovation and risk taking is encouraged. (Based on NETP Section 3: Leadership pg. 42)</p> <p>6: All leaders will be active constructors of knowledge, developing skills guided by the Massachusetts Digital Literacy and Computer Science Standards and the ISTE standards for Administrators.</p>
<b>Assessment</b>	<p>7: Leverage the power of technology to expand the use of ongoing, formative, and embedded assessments that are useful for improving learning. (Based on NETP Section 4: Assessment pg. 55)</p>
<b>Infrastructure</b>	<p>8: Ensure an equitable and accessible digital learning environment for all students and staff that is supported by a robust and comprehensive infrastructure. (Based on NETP Section 5: Infrastructure pg. 69)</p> <p>9: Educate and reinforce consistent cyber-safety and cyber-security practices for students and staff.</p>



## Focus Area - Learning

### *Engaging and Empowering Learning Through the Purposeful Use of Technology*

**Goal I: All learners will be engaged and empowered in a digitally rich, blended environment that prepares them to be ethical participants in a globally connected society. (Based on NETP Section 1: Learning pg. 9)**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
1.1 Integrate effective technology enhanced learning model(s) (i.e. blended learning, online learning, inquiry based, and project-based learning) to promote collaboration, critical thinking, cross-curricular connections, and authentic learning experiences throughout the curriculum for all students.	<ul style="list-style-type: none"> <li>a. Identify teachers/classrooms where technology enhanced learning models are already used to serve as exemplars</li> <li>b. Provide professional development on various technology enhanced learning models</li> <li>c. Collaborate with department chairs and teachers to continue to create technology enhanced learning opportunities directly into the curriculum through curriculum revisions</li> </ul>	District Administration Building Administration Director of Digital Learning Director of Technology Department Chairs Teachers	Classroom Observation Notes Meeting Agendas (where teacher presents about model he/she uses) Curriculum Documents	2018-2019 (a) 2019-2021 (b) 2019-2021 (c)
1.2 Integrate high yield digital instructional strategies within the core curriculum to support the development of essential skills such as critical thinking, problem solving, collaboration, information literacy, and technology literacy for all students.	<ul style="list-style-type: none"> <li>a. Define and communicate the definition of essential skills</li> <li>b. Identify high yield strategies</li> <li>c. Pilot strategies into the current curriculum</li> <li>d. Provide professional development on identified strategies within the content areas most appropriate</li> <li>e. Embed strategies and technological resources in curriculum documents</li> <li>f. Review and update as needed</li> </ul>	District Administration Building Administration Director of Digital Learning Department Chairs Teachers	Professional Development Materials/Rosters Classroom Observation Notes Inclusion of Strategies within Curriculum Documents	2018-19 (a) 2019-Ongoing* (b-f)

\*Ongoing-many actions and activities of this plan will continue over time as research on best practice in teaching and learning transforms and evolves.

**Goal 2: All learners will be active constructors of knowledge, developing digital literacy skills guided by the MA Digital Literacy and Computer Science Framework (DLCS).**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
<p>2.1 Research, develop and implement a PK-12 digital citizenship curriculum that clearly identifies expectations at each school level.</p>	<p>a. Explore areas where digital citizenship is currently being taught throughout the PK-12 curriculum                      b. Research various digital citizenship curriculum models and how other Massachusetts schools handle the teaching of digital citizenship.                      c. Select or create a PK-12 digital citizenship program                      d. Implement a PK-12 digital citizenship program</p>	<p>Building Administration                      Director of Digital Learning                      Director of Technology                      Technology Advisory Committee                      Department Chairs                      Library/Media Personnel                      Teachers</p>	<p>TAC Meeting Agenda/Notes                      Curriculum Documents                      Fully Articulated/Aligned Digital Citizenship Curriculum</p>	<p>2018-19 (a, b)                      2019-2020 (c)                      2020-2021 (d)</p>
<p>2.2 Continue integration of the Massachusetts Digital Literacy and Computer Science Framework (DLCS) into core content instruction.</p>	<p>a. Unpack and power the Digital Literacy and Computer Science Curricular Framework (DLCS)                      b. Crosswalk the DLCS to Curricular Frameworks in core subject areas                      c. Collaborate with department chairs and district/building administration to identify specific units/lessons that address DLCS standards and include the DLCS standards within the curriculum documents.                      d. Collaborate with department chairs and district/building administration to update curriculum to include outstanding DLCS standards that were not found within the original curriculum review</p>	<p>District Administration                      Building Administration                      Director of Digital Learning                      Director of Technology                      Technology Advisory Committee                      Department Chairs                      Library/Media Personnel                      Teachers</p>	<p>Unpacked DLCS Standards                      Crosswalk Document                      Updated Curriculum Template (Includes Technology Standards)                      Curriculum Documents</p>	<p>2018-2019 (a)                      2019-2020 (b)                      2020-Ongoing (c, d)</p>

## Focus Area - Teaching

### *Teaching with Technology*

**Goal 3: Educators will be supported by technology that connects them to people, data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners. (Based on NETP Section 2: Teaching pg. 28)**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
3.1 Design and implement professional learning opportunities to support and develop educators' understanding of the role of technology as a tool for learning that supports curricular standards, personalized learning, social emotional learning, and overall positive student outcomes.	<p>a. Identify areas in the core standards that require the use of technology either as an instructional tool or a product</p> <p>b. Design and deliver professional learning based around curriculum standards that require technology as a tool or a product (includes specific tools as well as digital strategies)</p> <p>c. Research specific educational practices using technology as a tool specifically to support social emotional learning (i.e. technology to provide timely, focused feedback in multiple forms -- written, audio and video)</p> <p>d. Design and deliver or collaborate with other stakeholders to produce professional learning regarding technology as a tool to support social emotional learning</p>	<p>District Administration                      Building Administration                      Director of Digital Learning                      Director of Technology                      Technology Advisory Committee                      Department Chairs                      Teacher Leaders</p>	<p>Professional Development                      Materials                      PD Evaluations                      Curriculum Documents                      Classroom Observations</p>	<p>2018-19 (a)                      2019-21 (b, c, d)</p>
3.2 Utilize staff meetings, vertical teams, departmental meetings, and summer institutes to introduce and integrate the SAMR technology integration model to all grade levels	<p>a. Develop and deliver a district/school presentation to introduce the SAMR model to teachers/administrators</p> <p>b. Embed the SAMR model into all technology related professional development</p> <p>c. Introduce the TPACK Model to Principals and Department Chairs to assist in assessing staff readiness for implementing this model in subsequent plans.</p>	<p>District Administration                      Building Administration                      Director of Digital Learning                      Department Chairs                      Teachers</p>	<p>Initial Presentation of SAMR Model to all schools                      Evidence of the SAMR model within all technology related PD documents                      SAMR/TPACK guides                      Curriculum updates with extended levels of technology integration</p>	<p>2018-19 (a-develop)                      2019-2021 (b)                      2021 (c)</p>

**Goal 4: All educators will be active constructors of knowledge, developing skills guided by the Massachusetts Digital Literacy and Computer Science Standards and the ISTE Standards for Educators.**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
4.1 Provide coaching opportunities to support and develop educators' own abilities to create authentic, learner-driven activities.	a. Work directly with building administration to identify specific coaching needs b. Communicate coaching availability to teachers as a way to develop individual technological skill (classroom management, curricular, productivity, assessment, etc.)	Building Administration Director of Digital Learning Director of Technology Department Chairs Library/Media Personnel Teacher Leaders	PD/Coaching Log Notes/Plans Classroom Observations Curriculum Documents	Ongoing
4.2 Encourage educators to develop professional goals related to the ISTE Standards for Educators.	a. Work directly with building administration and department chairs to identify teachers who have chosen professional goals related to technology b. Contact teachers to discuss how to best support and meet their individual goals	Building Administration Director of Digital Learning Department Chairs	Meeting Schedule Notes/Plans Classroom Observations	2020-Ongoing

## Focus Area - Leadership

### *Creating a Culture and Conditions for Innovation and Change*

**Goal 5: Model effective digital learning techniques that support the district’s vision for digital learning where innovation and risk taking is encouraged. (Based on NETP Section 3: Leadership pg. 42)**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
5.1 Communicate the district’s vision for digital learning and its ability to transform teaching and student learning to all stakeholders.	<ul style="list-style-type: none"> <li>a. Present the district’s vision for digital learning at the yearly opening meeting and as a part of the Technology Plan (including the vision) to the School Committee and various other district leadership teams</li> <li>b. Present the district’s vision for digital learning at the beginning of all technology related professional development</li> <li>c. Reference the vision during “celebrations” of innovative teaching and learning</li> </ul>	District Administration Building Administration Director of Digital Learning Director of Technology Technology Advisory Committee Department Chairs	Improvement on STNA Questions regarding Plan/Goal Communication	Ongoing
5.2 Provide access to high quality professional development focused on effective technology integration throughout the curriculum.	<ul style="list-style-type: none"> <li>a. Collaborate with building administration and department chairs to determine need and focus areas</li> <li>b. Develop professional development (in house) or utilize outside resources (i.e. consultants, publishers, etc.) to deliver professional development to staff through a variety of methods (face-to-face, blended, online, etc.) and at a variety of levels</li> <li>c. Promote out of district learning opportunities that support goals in the district technology plan</li> </ul>	District Administration Building Administration Director of Digital Learning Director of Technology Department Chairs	PD Attendance Rosters Conference Attendance/Participation	Ongoing
5.3 Increase the utilization of digital tools amongst all members of the leadership team to promote communication, collaboration, and	<ul style="list-style-type: none"> <li>a. Ensure that all members of the leadership team will have access to a mobile device (i.e. Chromebook/laptop/tablet/etc.)</li> </ul>	District Administration Building Administration Director of Digital Learning Director of Technology	School level communication examples. Meeting agendas with specific technology usage indicated (i.e.	Ongoing

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
innovation.	b. Model effective digital strategies and practices for all meetings and district departmental communication	Department Chairs	Google Forms for Survey) Social Media Feeds	
<p>5.4 Develop and communicate a master staffing plan to support meaningful technology integration that includes the following positions:</p> <ul style="list-style-type: none"> <li>● Director of Digital Learning</li> <li>● Digital Learning Specialist(s)</li> <li>● Building Level Support (i.e. Teacher Technology Liaisons)</li> </ul>	<p>a. Develop job descriptions for positions  b. Hire Director of Digital Learning  c. Demonstrate need and advocate for positions to support effective infrastructure and technology integration goals  d. Develop cohesive plan for building level Teacher Technology Liaisons  e. Build capacity within building level Teacher Technology Liaisons  f. Hire Digital Learning Specialists  g. Evaluate and Revise Position Responsibilities</p>	<p>District Administration  Building Administration  Director of Digital Learning  Director of Technology</p>	<p>Position Descriptions  Hiring of Positions  Evaluation of Positions</p>	<p>Director of Digital Learning job description and hire FY 19. (a, b)</p> <p>Develop descriptions for Digital Learning Specialist and building level support position in FY 19. (a)</p> <p>FY19-Ongoing (c)</p> <p>Implement Building Level Support Position FY20 (d, e)</p> <p>Hire Digital Learning Specialists FY 20 (f)</p> <p>Evaluate and adjust responsibilities in FY 21 (g)</p>
<p>5.5 Explore the establishment of a Digital Learning and Innovation Team in each school that will pilot digital learning strategies and new digital learning tools/applications assessing their ability to enhance learning and produce positive student outcomes. Team members would also be</p>	<p>a. Create Team Vision and Purpose  b. Create Team member responsibilities (i.e. technology PD/sharing sessions)  c. Select members and convene Team</p>	<p>District Administration  Building Administration  Director of Digital Learning  Director of Technology  Technology Advisory Committee  Department Chairs</p>	<p>Team vision statement  Establishing of Teams within each school</p>	<p>2019-2020 (a, b)  2020-2021 (c)</p>

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
responsible for conducting professional learning sessions focused on their hands-on experience.		Teachers		

**Goal 6: All leaders will be active constructors of knowledge, developing skills guided by the Massachusetts Digital Literacy and Computer Science Standards and the ISTE standards for Administrators.**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
6.1 Dedicate time during school or district leadership meetings to gain greater understanding of the Digital Literacy Computer Science Standards and the ISTE Standards for school Administrators.	<ul style="list-style-type: none"> <li>a. Develop short Introduction to the ISTE Standards for Educators and Administrators</li> <li>b. Develop at a Glance Document for Administrators for MA DLCS Framework</li> <li>c. Present to district leadership</li> </ul>	District Administration Director of Digital Learning Director of Technology	Agendas Training Materials At a Glance Document	2019-20 (a, b, c)
6.2 Assist administrators to develop goals that incorporate the ISTE Standards for Administrators.	<ul style="list-style-type: none"> <li>a. Introduce ISTE Standards for Administrators to District/Building Administration</li> <li>b. Encourage administrators to incorporate the standards within their educators' goals</li> <li>c. Provide coaching and support to educators on an as needed basis to meet their individual goals</li> </ul>	District Administration Building Administration Department Chairs Director of Digital Learning	PD/Coaching Log Notes/Plans	2019-20 (a) 2020-ongoing (b, c)



## Focus Area - Assessment

### *Measuring for Learning*

**Goal 7: Leverage the power of technology to expand the use of ongoing, formative, and embedded assessments that are useful for improving learning.  
(Based on NETP Section 4: Assessment pg. 55)**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
7.1 Explore the use of technology-based assessments (ongoing, formative, and embedded) across the core disciplines as a tool to inform instructional practice and personalize instruction.	<ul style="list-style-type: none"> <li>a. Explore technologies currently being used for assessment</li> <li>b. Determine specific areas of need</li> <li>c. Pilot new technologies and determine their usefulness.</li> <li>d. Provide professional development throughout the implementation process</li> </ul>	District Administration Building Administration Director of Digital Learning Director of Technology Department Chairs Teachers	List of current assessment tools Implementation of assessment tools Curriculum Documents	Ongoing
7.2 Provide support to educators in the use of technology to collect data to improve instructional decision making and personalize learning for all students.	<ul style="list-style-type: none"> <li>a. Determine products/methods currently used for data collection</li> <li>b. Introduce strategies and tools for quick formative assessment to aid in instructional decisions</li> <li>c. Explore/Pilot technologies that provide quick feedback to students on their progress allowing for greater personal learning</li> <li>d. Implement and provide professional learning for research supported assessment tools</li> </ul>	District Administration Building Administration Director of Digital Learning Director of Technology Department Chairs Teachers	District-Wide list of products used PD on strategies for quick formative assessment Classroom Observations	Ongoing
7.3 Research survey tools (i.e. STNA) to assess availability, use, and overall effectiveness of technology tools and digital learning initiatives.	<ul style="list-style-type: none"> <li>a. Explore how other schools are measuring effective technology integration and overall usefulness</li> <li>b. Research various tools to assess effective technology integration for both students and teachers</li> <li>c. Pilot a tool to assess effective</li> </ul>	District Administration Building Administration Director of Digital Learning Director of Technology Technology Advisory Committee	STNA (or other survey tool) Google Dashboard Reporting Tools	2018-Ongoing

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
	technology integration 3-Adopt tool and schedule administration (annually, bi-annually, etc.)	Department Chairs Teacher Leaders Library Media Personnel		

## Focus Area - Infrastructure

### *Enabling Access and Effective Use*

**Goal 8: Ensure an equitable and accessible digital learning environment for all students and staff that is supported by a robust and comprehensive infrastructure. (Based on NETP Section 5: Infrastructure pg. 69)**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
8.1 Complete a technology infrastructure and Wi-Fi audit to ensure the set-up of our system is capable of meeting our future learning goals.	Work with independent contractor to evaluate Wi-Fi coverage, AP placement and management configurations	Technology Department	Independent contractor will produce a document of findings and action steps	Complete audit every 3 years with an annual review
8.2 Create 1:1 learning plan that identifies how the district will move over the next several years to having a computing device for each student.	<ul style="list-style-type: none"> <li>a. Review 1:1 plans of neighboring districts</li> <li>b. Speak to Tech Directors in districts that have implemented 1:1 plans to discuss best practices based on their experience</li> <li>c. Document inventory of existing devices with end of life expectancy projections</li> <li>d. Work with vendors to review lease vs. buy options</li> <li>e. Implement content filtering solution for devices when used outside of school network</li> <li>f. Create policies for acceptable use of equipment, usage expectations, warranty/insurance options, repair charges</li> <li>g. Create asset tag / inventory system to assign device to student/teacher</li> <li>h. Create repair database to track repairs performed on devices and potential charges for replacement parts</li> <li>i. Review help desk staffing plans to support issues with devices - students</li> <li>j. Identify device and carrying/protective case that will be used</li> <li>k. Develop rollout plan for teacher 1:1</li> </ul>	Technology Department District Administration Building Administration Director of Digital Learning Department Chairs	Review and observation of the plan	2018-19 (a, b, c, d) Ongoing (e-p)

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
	devices l. Develop rollout plan for student 1:1 devices utilizing combination of new and existing devices that have not reached end of life m. Develop professional development offerings for teachers, students, parents n. Identify options for students that do not have Wi-Fi at home o. Communicate rollout plan with staff, students and the community p. Review plans for migrating to online textbooks			
8.3 Conduct regular assessment of technology devices and create plan for when devices will need to be updated.	Utilize network inventory software to identify end of life expectancy on all district devices	Technology Department	Removal of end of life devices from network and inventory	Ongoing
8.4 Conduct an annual review of infrastructure hardware, such as servers, switches, firewall	Review inventory of all network infrastructure hardware and update as needed	Technology Department		Ongoing
8.5 Provide information about public Internet accessibility options (i.e. public library) to stakeholders to ensure equitable access.	Seek equitable access options for MPS families	Technology Department		Ongoing
8.6 Explore and pilot flexible design options to modernize learning spaces, such as libraries, classrooms, labs, etc. to meet the changing needs of curriculum.	Review lab environment with classroom teachers, department chairs to identify possible configuration changes to support curriculum	Technology Department Director of Digital Learning District Administration Department Chairs Library/Media Personnel		Ongoing
8.7 Continually evaluate bandwidth requirements to meet recommended student/MB ratio.	Monitor bandwidth usage at average/peak times to ensure availability of resources and upgrade as necessary	Technology Department	Availability of bandwidth	Ongoing

**Goal 9: Educate and reinforce consistent cybersafety and cybersecurity practices for students and staff.**

District-wide Strategic Initiative	Actions & Activities	Responsible Individuals	Evidence of Progress	Timeline
9.1 Utilize staff meetings and other communication channels to educate staff in practices and procedures related to maintaining network integrity and security.	<ul style="list-style-type: none"> <li>a. Create FAQ document to address network / email security issues</li> <li>b. Distribute FAQ to staff, post on website and reinforce through department chair meetings</li> </ul>	Technology Director		Annual Review
9.2 Develop a systematic procedure for approval and use of online applications and software.	<ul style="list-style-type: none"> <li>a. Create Google form for request/approval with backend system to support tracking of decision, notes and reason (if denied)</li> <li>b. Create process to notify requestor and update district publication of approved software</li> </ul>	Director of Digital Learning Director of Technology District Administration		Annual Review
9.3 Create a publication of district approved software and online applications.	Create database of district approved software and online applications and share with staff	Director of Digital Learning Director of Technology		Ongoing
9.4 Educate staff and students on data privacy, cybersecurity and provide professional development from an independent source	<ul style="list-style-type: none"> <li>a. Identify independent source to provide professional development</li> <li>b. Determine logistics of professional development plan</li> <li>c. Provide ongoing documentation, reminders and tips to reinforce the topic after PD is completed</li> </ul>	Director of Digital Learning Director of Technology		Annual Review

## Guiding References Used in the Development of This Document

- [2017 National Education Technology Plan](#)
- [Massachusetts Every Student Succeeds Act](#)
- [International Society for Technology in Education Standards](#)
- [Massachusetts Digital Literacy & Computer Science Standards](#)
- The following schools' technology plans were used as a guide:
  - Dover-Sherborn Public Schools
  - Duxbury Public Schools
  - Mashpee Public Schools
  - Mendon-Upton Public Schools
  - Milford Public Schools
  - Natick Public Schools
  - North Reading Public Schools
  - Norton Public Schools
- *Start With The Why*, by Simon Sinek
- Massachusetts Computer Using Educators (MassCUE) Blended Learning Program
- Friday Institute - Staff Technology Needs Assessment Survey (STNA)
- NC Digital Learning Plan - Digital Learning Progress Rubric
- The Hunt Institute

## Glossary

GAFE: Google Apps for Education

ISTE: International Society for Technology in Education

NETP: National Education Technology Plan

SAMR: a framework created by Dr. Ruben Puentedura that helps educators to integrate digital resources and technology into teaching and learning. The model categorizes four different degrees of classroom technology integration. The acronym "SAMR" stands for the four levels of integration: Substitution, Augmentation, Modification, and Redefinition.

STNA: The School Technology Needs Assessment (pronounced "Stenna") was created by the Friday Institute and is a tool intended to help school districts collect data to plan and improve uses of technology in teaching and learning activities.

TPACK: A theory developed to explain the set of knowledge that teachers need to teach their students a subject, teach effectively, and use technology. TPACK stands for Technological Pedagogical Content Knowledge.