



Weston Public Schools

Weston Public Schools
TECHNOLOGY PLAN
2016- 2019

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Weston Public Schools

Belief & Vision Statement

Our vision is that students and staff will have access to the tools and materials needed to advance teaching and learning. We also envision that the school administration will leverage technology to enable quality, efficient, and effective means of managing the business of schooling. We believe that access to and skillful use of information technology tools are essential for students and staff, that technology tools enable authentic and diverse approaches for developing and synthesizing concepts, representing and communicating knowledge, and managing quality instructional practices.



Statement of Overarching Department Planning Goals

Goal One: Foundation of Stable Sustainable Resources.

Our priority is to maintain a core infrastructure designed to enable the business of schooling and we will look for opportunities presented by convergence, new innovations, and joint school/town operations to sustain our resources in the most cost effective manner.

Technology planning is the act of balancing the known need for stable educational resources with the inevitable unknown future, within the context of tightening fiscal constraints.

Goal Two: Purposeful, Thoughtful, and Continuous Improvement.

Our goal must always be to improve our customer service practices, procedures, and methods to support the educational mission of the schools. Faculty feedback is an important measure of our effectiveness and provides opportunities for growth and improvement. As technologies change and develop, the technology department will continue to learn and morph to meet the challenge.

The technology department's purpose is to support and encourage the active engagement of students and teachers with proven communication, productivity, and curricular tools.

Goal Three: An Eye On the Future

The technology department acts as a sentinel and catalyst to spur ideas that may be worth a closer look. Technology does not drive curriculum, but curriculum alone does not engage potential synergies within or among siloed content areas or grade levels. A partnership is required.

Successful technology departments are proactive, responsive, and resilient.

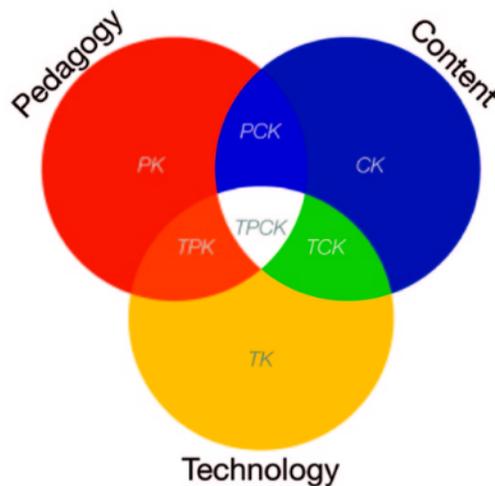


Curriculum Integration

The process of integrating educational technologies into the Weston Public Schools curriculum shall be achieved through the thoughtful linking of technology with curriculum goals. Integration efforts will be focused on systemic projects with multi-year goals following Weston’s Curriculum Standards and Frameworks.

The department heads, curriculum specialists, director of technology, principals, and assistant superintendent review new technology based curriculum integration initiatives for continuity, impact, and efficiency of time and money. Successful pilot projects become the focus of future staff development and budget planning for broader dissemination if and when appropriate.

To ensure the most effective instruction possible, curriculum leaders will consider the most appropriate technologies to achieve the desired teaching and learning goals. For example, the TPK framework (Technology, Pedagogy, and Content Knowledge) can frame targeted technological integration to enhance educational experience and effectiveness.



2016 - 2019 Action Plan Items	Responsible	Timeline
Assist in the development and implementation of technology integration district-wide.	K-12 Curriculum Council	On-going



2016 - 2019 Action Plan Items	Responsible	Timeline
Integrate & monitor targeted tech & information literacy standards into curriculum-based content and assessments.	Tech integration Specialist & Curriculum Leaders, Library Media Specialist	On-going
Create a progress monitoring tool for student technology & information literacy skills as defined by WPS standards.	Tech integration Specialists & Data Manager, Library Media Specialist	2016-2018
Provide professional development regarding SAMR model*, the TPCK framework, and information literacy.	Tech integration Specialist & All faculty, Library Media Specialist	2016-2019

*SAMR stands for Substitution, Augmentation, Modification, and Redefinition. SAMR is a model designed to help educators infuse technology into teaching and learning. Developed by Dr. Ruben Puentedura, the model supports and enables teachers to design, develop, and infuse digital learning experiences that utilize technology. The goal is to transform learning experiences so they result in higher levels of achievement for students. -Kathy Schrock

“As a catalyst to change in classroom practice, learning technology can help educators promote active and participatory student learning. But the key to success isn't the computers, probeware, graphing calculators or access to networks and the internet. It is liberated educators, whose understanding and creative use of technology can help them to achieve undreamed-of levels of excellence for themselves and for their students.”

-Lowell Milken, President and Co-founder of the Milken Family Foundation



Staff Development

The changing nature of technology tools requires us to acknowledge the need for on-going staff development for both management and instructional integration.

Technology department personnel also require staff development to enable innovation.

When possible, the technology budget will reflect an effort to encourage growth and development at all levels of the school system.

2016 - 2019 Action Plan Items	Responsible	Timeline
Adapt the most recent national and state technology & information literacy and integration skills rubrics into WPS tool to assess faculty and staff skill development needs.	Tech Integration Specialists, Library Media Specialist	2016-2017
Assess staff technology and integration skills against skills rubric	Tech integration Specialists, Library Media Specialist	2016-2018
Design/implement professional development to meet the identified needs of faculty.	Tech integration Specialists, Library Media Specialist, & Professional Development Committee	2017-2019



Administrative Efficiency

Technology will be used to increase communication, provide access to instructional materials, manage and enable use of assessment data, create workflow processes, and increase efficiency with and among the staff, students, and the community.

The WPS shall have processes and data systems able to securely synchronize and share data sources for efficient process management. Data elements isolated in external data systems are of little use to our larger goal of leveraging data for analysis and reduction of data entry conflicts.

The Weston Public Schools web site and communications systems are a core communications tool for our community. Maintaining timely and open public information on the website is an important aspect of being a public entity and for transparency to our constituency.

2016 - 2019 Action Plan Items	Responsible	Timeline
Review and update the WPS public website, taking into account social media channels, mobile devices, App integration, and the various ways our community consumes information.	Dir. Of Technology, WebMaster, Working Group	2016-2017
Review data systems used by the district and analyze possible synergies/efficiencies in data management.	Data Manager	2016-2019



Technology Support Personnel

The Weston Public Schools shall employ a variety of staff to ensure the thoughtful and stable integration of technology into teaching, learning, and business processes. This shall include the necessary technical support personnel to maintain the productive use of technology, technical stability of hardware and software, backend services, communications systems, and DESE reporting, as well as expertise in the integration of technology tools into the curriculum.

2016 - 2019 Action Plan Items	Responsible	Timeline
Identify training needs and opportunities to enhance technical skill sets that foster stability, efficiency, and converging technologies.	Network Services	2016-2019
Identify means to help retain IT staff and resources needed to maintain service level expectations in an environment of high technical staff turnover and financial constraints.	Director of Technology	2016-2019
Consolidate school/town services when and where possible for efficiency and cost savings.	Director of Technology	On-going



Hardware Replacement Plan

Computer equipment has a limited useful life. Our goal is to provide reliable and appropriate computing, audiovisual, and network experience to facilitate WPS educational objectives. For the next three years, the Weston Public Schools will strive for the following replacement lifecycle.

Lifecycle Guidelines: Please note that our hardware lifecycles are not absolute, rather our goals for budget planning. Some hardware lasts longer, some shorter.

Projectors	7 to 10 years
Desktop computers	5 to 6 years
Laptops	5 years
Chromebooks	4 Years*
Interactive Whiteboards	10 years (with some being phased out)**
Audio systems	10 to 15 years
iPads	4 to 5 years***
Document Cameras	7 to 10 years
Printers	7 years
Copiers	3 to 4-year (Leased)

*As yet unknown what the useful life will be for these devices

** Some models have not reached this goal with adequate stability

*** With later years outside of a one to one program with less intensive use



To determine the stability and effectiveness of our hardware, the technology department staff meet each fall to plan hardware replacements and budget needs based on functionality and not age of hardware.

The Technology Office will explore and coordinate purchases and services with the Town and/or state contracts as a means to leverage the best prices and services for the Town and schools.

2016 - 2019 Action Plan Items	Responsible	Timeline
Update the long-range technology lifecycle planning document each budget cycle to include all major educational & security components	Director of Technology	Each fall during the budget process
Identify potential reductions in hardware resources as equipment reaches end of life and communicate the educational trade-offs as balanced with financial constraints	Director of Technology	Each fall during the budget process
Act as catalyst to assess, test, and /or arrange to pilot new technologies to leverage convergence, Cloud-based services, communications, or audiovisual technologies to meet the diverse needs of education.	Director of Technology & Appropriate Department	On-going
Identify & adopt a hardware inventory system that also tracks the history of device repairs	Tech Coordinator & Systems Admin	2016-2017



Core Communications Infrastructure

Weston's core infrastructure can be divided into five components; 1) the physical copper and fiber network, 2) network switching and wireless electronics, 3) server hosts and storage platform that provide virtualized application services, 4) Internet gateways, firewalls, SPAM filters, and Anti-Virus systems, and 5) Cloud-based resources such as our fledgling Azure VM servers, Google Apps for Education domain, and hosted application services. All faculty and student communications, applications, file storage, and Internet access rely on multiple pieces of this core infrastructure.

Our core infrastructure is the foundation upon we have built the technological services we provide and is our highest priority to provide security, redundancy, and lifecycle replacement. Network failure and data loss are not acceptable.

We will take advantage of opportunities to design and implement Town/School shared resources to avoid unwarranted duplication and add important redundancies to increase efficiency and stability of services.

2016 - 2019 Action Plan Items	Responsible	Timeline
Research, design, and implement Internet service redundancy between the HS and the Town Hall	Network Manager	2016-2017
Research next steps for Internet bandwidth enhancement to meet demand in the most affordable manner	Network Manager	2017-2018
Schedule network security testing every one to two years (joint School/ Town Project)	Network Manager	On-going
Identify and plan the replacement of our aging Storage Area Network (SAN) (joint Town/ School project) & 10GB switching connections.	Network Services Group	2016-2018



Disaster Recovery and Continuity of Operations

Technology is mission critical to our entire educational community. To ensure continuity of service we employ redundancies, keep regular backups, and have operational plans in the event something beyond our control affects our network or systems.

2016 - 2019 Action Plan Items	Responsible	Timeline
Update our 2014 disaster recovery and continuity of operations plan	Network Services Group	Each January
Test our continuity of operations & Disaster Recovery plan (beyond what we have already experienced due to weather / power over the last couple years.)	Network Services Group (& Town IT department)	Each Summer