



Newton Public Schools

Department of Information Technology and Library Services • 2016-2018

The collective success of the Department of Information Technology and School Libraries is built upon meaningful integration and support of technology to guide learning, creativity and innovation for our students.

Introduction

The Newton Public Schools (NPS) Information Technology and Library Services Department has traditionally developed a multi-year technology plan. The pace of instructional innovation and technological change is simply too fast for a five year plan to remain relevant.

Our new three-year plan adopts the format used in school improvement plans and reflects our department's core values. In creating this plan we have established 3 goals. As a department we have defined specific objectives with accompanying action steps, responsibilities and a timeline for implementation. In this way we anticipate keeping pace with technological change in a manner that makes sense for teaching and learning in the NPS community (students, staff and families).

We value

- Respecting for human differences
- Embracing a culture of collaboration
- Using and creating information ethically as a community
- Thinking creatively and critically as a community to communicate and contribute to the learning of others
- Improving practice through exploring, creating solutions and reflecting

Who We Are: The Department

The **Instructional Technology Specialists (ITS)** guide and support the use of the district's technology resources in and out of the classroom, aligning Newton curriculum and instruction with appropriate digital tools and information resources. The team supports teachers as they integrate technology to advance classroom curriculum providing technical assistance, professional development workshops, courses and on-site consultation for staff. In their district-wide role, the ITS assist in the research and development of new methods and technologies to advance our program serving as guides, coaches, and facilitators; helping teachers and administrators master new challenges.

The **Library Teacher Team (LTT)** supports and guides K-12 learners as they build reading, research, and digital literacy skills, providing direct instruction to students. The traditional role of the school librarian is being redefined through the addition and use of digital resources. In their expanded role, the LTT has an essential role in instructing students as ethical

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users and producers of information as well as assisting teachers in gathering instructional print and digital resources infusing the inquiry process into the curriculum. They also support technology in the schools, which is pivotal for just-in-time learning among teaching staff.

The **Technology Solutions and Services Team (TSS)** is the “behind the scenes force” that is necessary for the seamless integration and delivery of technology in teaching and learning, as well as school operations. TSS designs, implements and supports the technology infrastructure, devices and information systems. The team works closely with the Instructional Technology and Library Media Teams in all the schools.

Three Department Goals

Department Goal 1: Curriculum

Embrace learning opportunities through coaching and modeling for students, staff and families to design, create, and collaborate in ways that are relevant to the curriculum and enhance teaching and learning throughout NPS

Department Goal 2: Culture

Foster a culturally proficient department in which each member is committed to communicating with integrity, respect, and compassion as we work with students, staff, and families

Department Goal 3: Infrastructure

Ensure robust Infrastructure supports are in place across the District; evaluate and improve existing network infrastructure, systems, applications, tech support and IT security that enable our goals

Department Goal 1: Curriculum (Students and Teachers)

Objectives	Action Steps	Person(s) Responsible	Timeline
1.1 Continue use and support of our Learning Management System (LMS), Schoology	<ul style="list-style-type: none">● Revise Online Schoology courses for teachers.● Integrate Schoology Gradebook with Skyward● Continue implementation of Schoology at secondary level● Develop and expand Schoology to	<ul style="list-style-type: none">● ITS● Online ITS● TSS - Data Team● LTT● Core Leadership● Curriculum Coordinators	Integrate Schoology with Skyward by Sept 1, 2017

	<ul style="list-style-type: none"> elementary level Develop a plan for implementation of Schoology for parent use 		
1.2 Increase Collaborative Research Projects between the Classroom and the School Library	Elementary: <ul style="list-style-type: none"> In response to revised schedule, develop common Research Projects aligned to Classroom Curriculum (Gr. 1-2) Examine content area grade level scope and sequence pacing guides to align proposed research opportunities Increase collaboration with Classroom teachers by developing a grade level specific “menu of possibilities” for research and track district-wide. 	<ul style="list-style-type: none"> LTT - Elementary Library Coordinator Coordinators 	2016-2018
	Middle School: <ul style="list-style-type: none"> Examine content area grade level scope and sequence pacing guides to align proposed research opportunities Increase collaboration with Classroom teachers by developing a grade level specific “menu of possibilities” for research and track district-wide. Complete K-12 scope and sequence for teaching citations/ethical use of information Introduce and integrate NoodleTools (6-12) into instruction, developing support materials for students and teachers 	<ul style="list-style-type: none"> LTT - Middle School Library Coordinator Coordinators 	2016-2018
	High School: <ul style="list-style-type: none"> Introduce and integrate NoodleTools (6-12) into instruction, developing 	<ul style="list-style-type: none"> LTT - High School Library Coordinator 	2016-2017

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	<p>support materials for students and teachers</p> <ul style="list-style-type: none"> • Increase ability to use Brain Pop with staff and students by library teachers through PD offered by company 	<ul style="list-style-type: none"> • Coordinators 	
	<p>District K-12</p> <ul style="list-style-type: none"> • Assess current state of research K-5,6-8,9-12 to determine common research projects across the district • Invite Curriculum Coordinators to Elementary/MS meetings to determine targets of opportunity for integrating the Super 3/Inquiry Process into classroom curriculum • Develop common assessment rubrics for classroom/library evaluation of district implemented research projects at each grade level • Increase of databases in school and at home with teachers and parent community 	<ul style="list-style-type: none"> • LTT - All Levels • ITS • Library Coordinator • Coordinators 	2016-2018
<p>1.3 Continue to develop the Tech Hub for district-wide support of technology resources</p>	<ul style="list-style-type: none"> • Assess current viability of existing FAQ's in the Tech Hub. • Determine screencast topics and create new screencasts on software and programs • Determine self-paced tutorials for staff • Determine necessary "How to Guides" • Consolidate TASC FAQ into tech hub 	<ul style="list-style-type: none"> • ITS • TSS • LTT • Core Leadership 	2016-2018
<p>1.4 In collaboration with the NPS SEL team develop and implement a series of</p>	<p>Grades 4-5</p> <ul style="list-style-type: none"> • Create a minimum of 3 lessons in grades 4-5 to be co-taught by the ITS with the classroom teacher using the coaching 	<ul style="list-style-type: none"> • ITS • ITLS Director • SEL Staff 	2016 -17

<p>classroom lessons, (grade 4-8) on social media and use of digital tools.</p>	<p>model</p> <ul style="list-style-type: none"> • Update the visual AUP signage at elementary schools to reflect responsive classroom and developmentally appropriate language 		
	<p>Grades 6-8</p> <ul style="list-style-type: none"> • Update the visual AUP signage at middle school to reflect responsive classroom and developmentally appropriate language • Create 8 “recipe” cards with scenarios to generate relevant discussion among students concerning Internet Safety (texting, social media) for grades 6-8 with appropriate resources to guide teachers 	<ul style="list-style-type: none"> • ITS • ITLS Director • SEL Staff • LT 	2016 -17
	<p>District</p> <ul style="list-style-type: none"> • Identify at least two speakers for a parent/student evening event related to current issues in Internet Safety 	<ul style="list-style-type: none"> • ITLS Director 	2016 -18
<p>1.5 Internet Safety Curriculum in the Library</p>	<ul style="list-style-type: none"> • Review K-8 Library Internet Safety Units for relevancy, defining needed updates • Revise, update and create library lessons as needed K-5, 6-8 • Develop plan of implementation for Internet Safety lessons in the school library Gr. 6-8 	<ul style="list-style-type: none"> • LTT • Library Coordinator 	2016-18
<p>1.6 Refine existing Skyward PD and create a district PD approach for district staff</p>	<ul style="list-style-type: none"> • Determine topics and create FAQ’s • Determine and create needed screencasts • Determine and create needed self-paced tutorials 	<ul style="list-style-type: none"> • ITS • Online Learning ITS • TSS - Data Team • ITLS Director 	2016-2018

	<ul style="list-style-type: none"> • Determine and create needed “how to guides” • Develop a detailed Skyward calendar for PD that specifies site specific onsite trainings 	<ul style="list-style-type: none"> • IT Services Manager 	
1.7 Develop district-wide online PD courses for staff	District <ul style="list-style-type: none"> • Analyze data collected from online courses provided by NPS to replicate and expand what has been effectively implemented • Survey staff to determine needed PD and develop a menu of online courses • Refine existing online PD courses and develop new offerings in Schoology 	<ul style="list-style-type: none"> • ITS • Online Learning ITS • Teaching and Learning • Library Coordinator • ITLS Director 	2016-2018
	Instructional Technology <ul style="list-style-type: none"> • Expand existing digital tool courses to be offered online and/or Face to Face: i.e. Chrome, PLN, iBooks, Coding • Expand existing courses offered for Worcester State University graduate credit 	<ul style="list-style-type: none"> • ITS • Online Learning ITS • Teaching and Learning • ITLS Director 	2016-2018
	Library <ul style="list-style-type: none"> • Investigate providing online and/or Face to Face course offerings leading to certification as a MA Library Teacher. • Determine necessary courses; develop and offer at least 2 certification required courses within Newton. • Promote availability of certification courses to nearby districts for participation • 	<ul style="list-style-type: none"> • Library Coordinator • ITLS Director • Teaching and Learning 	2016-2018

	<p>TSS</p> <ul style="list-style-type: none"> ● Survey TSS staff to assess PD needs and develop a menu of course offerings online and Face to Face aligned to collected data ● Research and select relevant training workshops leading to a specific technical certification for TSS staff ● Develop an agreed upon protocol to support scheduled peer observations within and outside the District 	<ul style="list-style-type: none"> ● ITLS Director ● IT Service Manager 	<p>2016-2018</p>
<p>1.8 Integrate technology skills into curriculum consistently and have similar experience across the grades using digital tools</p>	<ul style="list-style-type: none"> ● Identify current best practices aligned to curriculum units by grade level and content area ● Develop a protocol for disseminating exemplary lessons that integrate digital tools and/or digital resources by grade level and content area ● Invite content area Curriculum Coordinators and/or Coaches to participate in IT curriculum development meetings to provide input, direction and alignment to the subject area curriculum ● Develop a common rubric that can be applied by grade and content area when using digital tools and resources to create technology infused lessons ● Develop a vehicle for exemplary technology integrated lessons for replication by classroom teachers 	<ul style="list-style-type: none"> ● ITS ● LTT ● Online ITS ● Core Leadership ● Curriculum Coordinators 	<p>2016-2018</p>

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<p>1.9 Increase use of Destiny Online Library Catalog by students and teachers</p>	<ul style="list-style-type: none"> ● Create tutorials for students and staff ● Implement student and teacher log-ins ● Promote use of catalog outside of NPS by educating the larger community ● Empower students to create a book bag and have teachers create resource list that they can use to support units ● Integrate One Search and research other digital tools that integrate library resources into the schools ● Investigate emailing overdue notices and develop a plan to implement in NPS 	<ul style="list-style-type: none"> ● LTT ● Library Coordinator 	<p>2016-2018</p>
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Department Goal 2: Cultural

Objectives	Strategies	Person(s) Responsible	Timeline
<p>2.1 To communicate with, and support students, staff, and families in clear, friendly, and non-judgemental ways with respect to human differences</p>	<ul style="list-style-type: none"> ● Our strategies for this objective will include the following: ● Face to face training in the buildings ● Personal Presence - creating a schedule of office hours so staff can drop-in for support ● Email - to communicate what happens in the school and in the department ● Tech Hub - to continue to grow our Tech Hub ● Phone ● Tutorials 	<ul style="list-style-type: none"> ● ITLS Director ● Core Team ● LTT ● TSS 	<p>2016-2018</p>

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	<ul style="list-style-type: none"> ● FAQ ● Emailing staff Library updates at least 2x a month ● Multiple Languages 		
<p>2.2 Adopt and adapt relevant responsive school practices throughout the ITLS to become a Responsive Department</p>	<ul style="list-style-type: none"> ● Work with SEL to develop a vision for implementation ● Begin to create a common vocabulary when working in the department and in schools ● Provide mini-RS workshops for the department ● Encourage all LTT and ITS to take RC offered by the District ● Develop Department norms ● Review meeting structure ● Increase participation in meetings ● Establish an agreed upon set of guidelines for parent volunteers using RC type language ● Develop support materials for library volunteers to enable them to succeed in their role 	<ul style="list-style-type: none"> ● ITLS Director ● Core Team ● SEL Support 	2016-2018
<p>2.3 Improve our Department Customer Service to NPS</p>	<ul style="list-style-type: none"> ● Respond in a timely manner ● Develop a set of protocols for resolving technical issues ● Offer training on customer service skills during staff meetings 	<ul style="list-style-type: none"> ● ITLS Director ● Core Team ● LTT ● ITS ● TSS 	2016-2018
<p>2.4 Form a Department Book Club on a topic relevant to our collective work</p>	<ul style="list-style-type: none"> ● Send a survey to staff with suggested titles ● Find ways to organize the book groups both online and face to face 	<ul style="list-style-type: none"> ● ITLS Director ● Core Team ● LTT ● ITS ● TSS 	2016-2018

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<p>2.5 Increase communication within and from the department</p>	<ul style="list-style-type: none"> ● Core Update Emails to department ● At least one common meeting time within ITS, LTT and TSS ● Core Team will develop a schedule for frequent visits to schools ● Social Committee 	<ul style="list-style-type: none"> ● ITLS Director ● Core Team 	<p>2016-2018</p>
<p>2.6 Transparency and Equity within the department</p>	<ul style="list-style-type: none"> ● Annual review and input on the budget ● Examining what staff needs when making decisions instead of one model for all ● Identify PD opportunities based on internal department surveys ● Equal access to Core Leadership ● Establish opportunities for project and meeting leadership for ITS, LTT and TSS 	<ul style="list-style-type: none"> ● ITLS Director ● Core Team ● LTT ● ITS ● TSS 	<p>2016-2018</p>
<p>2.7 Define instructional practice - apply K-12 to support academic achievement by ELL and other diverse learners in the school library</p>	<ul style="list-style-type: none"> ● Develop an ELL section of resources for each K-12 School Library Web page ● Develop a schedule of meetings throughout the school year between library teacher and ELL teacher to provide continued support for ELL students and their families. ● Engage in outreach in each school to ELL parents to promote use of library resources at home for language development ● Provide follow up session to ELL Workshop for ITS/LTT 	<ul style="list-style-type: none"> ● LTT ● Library Coordinator ● ITS ● ITLS Director 	<p>2016-2018</p>

	<ul style="list-style-type: none"> ● Investigate providing an onsite Multiple Intelligences workshop for IT/LT staff to increase ability to differentiate instruction for ELL and diverse learners ● Complete creating common definitions for Tier Vocabulary and integrate into instruction ● Investigate providing an onsite course “Instructional Strategies and Digital Tools to Apply to support Special Education Students” for IT/LT staff to fulfill recertification requirements 		
<p>2.8 Actively strive to create a culture of independent reading among students and teachers through access to print and ebooks at school and at home</p>	<ul style="list-style-type: none"> ● Make state ebook program functional ● Promote state ebook use with staff and students by creating lessons, How To’s and support at all levels. ● Analyze usage at the end of each year ● Develop and implement instructions and support materials to grow ebooks usage ● Evaluate need and cost of loanable devices for students ● Develop procedures for the loaning of devices ● Review and adjust circulation policies for consistency across the district ● Visit other districts to see how they are using eBooks with students 	<ul style="list-style-type: none"> ● LTT ● Library Coordinator ● TSS - Data Team ● TSS - Network 	<p>2016-2017</p>

	<ul style="list-style-type: none">Analyze usage of Tumblebooks (K-5,6-8) and increase usage by students		
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Department Goal 3: Infrastructure

Objectives	Strategies	Person(s) Responsible	Timeline
<p>3.1 Phase two of Skyward Implementation including Fees, Online Registration, State and customized Reporting, data tracking and automated integration</p>	<ul style="list-style-type: none"> ● Integrate Skyward and Schoology on the user level ● Support Business Finance & Planning in implementing Fees tracking in Skyward ● Work with Skyward to implement SIF for SIMS, SCS and EPIMS for the 2016-2017 school year ● Automate Integrated Exports between Skyward and SNAP, EasyIEP, Destiny and school launch management systems ● Implement custom reports ● Implement Assessment tracking in Skyward ● Develop additional training resources for Skyward ● Begin to develop internal how to guides for processes 	<ul style="list-style-type: none"> ● TSS - Data Team ● IT Services Manager 	<p>2016-2017</p>
	<ul style="list-style-type: none"> ● Implement Skyward and Schoology for courses, classes and grade exchange ● Configure and Implement Online Registration for new students through family access ● Determine if Skyward fees interface will work to collect online payments through Family Access ● Evaluate and improve various data tracking modules of Skyward such as attendance, 504, ELL, CTE, Title 1 ● Implement and refine custom reports ● Continue to develop and refine internal how to guides for processes 	<ul style="list-style-type: none"> ● TSS - Data Team ● IT Services Manager 	<p>2017-2018</p>
	<ul style="list-style-type: none"> ● Evaluate how to automate staff records from FinancePlus to Active Directory for a more automated Account provisioning process 	<ul style="list-style-type: none"> ● TSS - Data Team ● TSS- Network ● TSS- Data Team 	<p>2017-2018</p>

	<ul style="list-style-type: none"> Automatically create staff records in Skyward from Active Directory 	<ul style="list-style-type: none"> IT Services Manager 	
	<ul style="list-style-type: none"> Continue to improve various data tracking modules of Skyward such as attendance, 504, ELL, CTE, Title 1 Implement and refine custom reports 	<ul style="list-style-type: none"> TSS - Data Team IT Services Manager 	2018-2019
3.2 Implement the plan based on the assessment of Wide Area Network and Wireless Infrastructure (WAN) to connect all schools at 10gb and reduce single points of failure including updating wireless capacity	<ul style="list-style-type: none"> Procure WAN Core and elementary switch and equipment Implement new core switches at Franklin and Williams elementary schools Implement Police Egress for Internet including firewall and filtering Update the wireless network at the middle schools Begin to transition Wireless Controllers to centralized Ed Center Model 	<ul style="list-style-type: none"> TSS-Network IT Services Manager 	2016-2017
	<ul style="list-style-type: none"> Evaluate if network bandwidth can be increased at each internet Egress Implement EIGRP multiple path load balancing across school WAN for Ed Center and Police Egresses Increase wireless density in key gathering locations Evaluate wireless coverage capacity and density at elementary schools in 2018 Complete Transition Wireless Controllers to centralized Ed Center Model 	<ul style="list-style-type: none"> TSS-Network IT Services Manager 	2017-2018
3.3 Develop a plan for improved security of IT Systems	<ul style="list-style-type: none"> Evaluate and develop a plan to ensure endpoint malware, virus monitoring and ransomware 	<ul style="list-style-type: none"> TSS- Tech Services TSS- Network IT Services Manager 	2016-2017

	<ul style="list-style-type: none"> Analyze if Cisco ISE/or equivalent is appropriate to manage network usage Evaluate Content Filtering Systems Evaluate a plan for security standards Evaluate and develop internal security audit process 	<ul style="list-style-type: none"> TSS- Network IT Services Manager 	2017-2018
3.4 Audit all servers and storage in the district and analyze data to develop a plan to better utilize in-house resources and implement disaster recovery capability	<ul style="list-style-type: none"> Audit Ed Center servers, both virtual and physical to develop an inventory list Consolidate physical servers to virtual whenever possible Surplus old hardware Implement backups of systems utilizing VEEM for storage at North Upgrade Servers to Windows 2012 where applicable (non-legacy systems) Re-Audit HS servers and make sure the backups are working appropriately Develop a plan to test and ensure backups are working appropriately 	<ul style="list-style-type: none"> TSS-Network TSS- Tech Services IT Services Manager 	2016-2018
	<ul style="list-style-type: none"> Continue to upgrade Servers to Windows Server Standard (i.e. 2012) where applicable (non-legacy systems) 	<ul style="list-style-type: none"> TSS-Network TSS- Tech Services IT Services Manager 	2018-2019
3.5 Evaluate switching from FirstClass to Gmail	<ul style="list-style-type: none"> Determine what to do with teacher web pages, special announcements, conferences. Determine how to implement archiving Create a beta group for testing Develop a plan for implementation and transition 	<ul style="list-style-type: none"> TSS-Network TSS- Tech Services ITS IT Services Manager ITLS Director 	2016-2018

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<p>3.6 Continue to support and develop website using SchoolWires</p>	<ul style="list-style-type: none"> ● Identify staff who need to be trained or who need additional training on Schoolwires ● Work with schools to use Schoolwires for classroom webpages ● Continue to update and grow the staff and family pages 	<ul style="list-style-type: none"> ● Online Learning ITS ● ITS ● TSS Network 	<p>2016 - 2018</p>
<p>3.7 Support standardized testing through technology.</p>	<ul style="list-style-type: none"> ● Evaluate requirements for MCAS 2.0 testing. ● Implement technology solutions to support for online testing including end user devices and increase wireless density where applicable. 	<ul style="list-style-type: none"> ● TSS-Network ● TSS- Tech Services ● IT Services ● ITS ● Manager ● ITLS Director 	<p>2016-2017</p>
<p>3.8 Continue to find ways to improve effective management of end user devices</p>	<ul style="list-style-type: none"> ● Evaluate Device Management for iPads ● Work towards updating all Mac equipment to OS 10.9 as lowest OS standard, and 10.11 where possible. 	<ul style="list-style-type: none"> ● TSS-Tech Services ● IT Services Manager 	<p>2016-2017</p>
	<ul style="list-style-type: none"> ● Create end user options for self troubleshooting user experience ● Develop a standard for equipment life-cycle updates (i.e. 2 OS releases behind), schedule and process for maintaining this ● Evaluate and develop a standard for OS and software licensing 	<ul style="list-style-type: none"> ● TSS-Tech Services ● IT Services Manager 	<p>2017-2018</p>
<p>3.9 New Building Technology Implementation</p>	<ul style="list-style-type: none"> ● Determine and confirm Zervas Technology needs ● Procure & Implement Zervas Technology ● Transition Carr to Zervas, and Cabot to Carr during Summer 2017 	<ul style="list-style-type: none"> ● TSS-Network ● TSS- Tech Services ● ITS ● IT Services Manager ● ITLS Director 	<p>2016-2017</p>
	<ul style="list-style-type: none"> ● Determine and confirm Cabot Technology 	<ul style="list-style-type: none"> ● TSS-Network 	<p>2016-2017</p>

	<ul style="list-style-type: none"> needs ● Procure Cabot Technology 	<ul style="list-style-type: none"> ● TSS- Tech Services ● ITS ● IT Services Manager ● ITLS Director 	8
3.10 LibGuides	<ul style="list-style-type: none"> ● K-5,6-8: prepare and package current Lib Guide for migration to 2.0 ● Review current structure of Web Page for ease of use ● Develop committees to continually review site for currency (deleting old links, adding new) ● Determine PD needs K-12 to increase ability with LibGuides 2.0 	<ul style="list-style-type: none"> ● LTT ● Library Coordinator 	2016-2017
3.11 Phones (VOIP)	<ul style="list-style-type: none"> ● Evaluate current infrastructure at all our schools to prepare for VOIP ● Work with a consultant to help identify next steps ● Develop a detailed plan for implementing VOIP in each building ● Secure funding for VOIP 	<ul style="list-style-type: none"> ● IT Service Manager ● Network Team ● ITLS Director ● Consultant ● Operations ● Finance Office 	2016-2017
	<ul style="list-style-type: none"> ● Begin to implement VOIP across the District according to the plan developed in 16-17 ● Assess progress throughout ● Create PD materials for staff on the new system 	<ul style="list-style-type: none"> ● IT Service Manager ● Network Team ● ITLS Director ● Consultant ● Operations ● Finance Office 	2017-2018

