

Little Silver Technology Plan

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Section 1 – Technology Inventory

[Inventory of Current Technology Networking, Telecommunications Equipment and Hardware](#)
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Internal wiring and connection of all classrooms to the local area networks, our district VPN, and to the Internet, has enabled us to utilize technology to deliver and support the New Jersey Core Curriculum Content Standards and the Common Core State Standards. The district uses a connection fiber optic cable (currently, a Verizon FiOS product) to access the Internet. All laptop computers and iPads in the school can access the wireless network in any location throughout the facility.

Software is installed on every computer in the district. Besides the Microsoft Office Suite, students have access to such applications as Google Apps etc. and various other online software applications. Filtering software and antivirus protection software operate from the cloud that provide network access to all of the computers in the district. The district currently uses on-premise web filtering appliance and Anti-Virus software.

District-wide, teachers, administrators, and support staff will be using an online student information system to record attendance, maintain scheduling, grades, and contact information. The database has also been utilized to produce state reports and records that can be shared with the district's board of education on a regular basis. Information specifically pertaining to special needs students is contained in a separate database system. This system can also be accessed district-wide. The district also implemented a curriculum mapping software tool (web-based) that facilitates development of curricula and provides public access to all district curricula via the district's website.

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Inventory Needed to Improve Student Academic Achievement Through 2019

Area of Need	Describe for 2016-17	Describe for 2017-18	Describe for 2018-19
Technology equipment including assistive technologies	<p>Servers, UPS (Battery Backups) for all network closets, continue 1:1 chromebook deployment for k-2 grades, New Content Filter Markham and Point, Start Staff device replacement, replace phone system, install Smart tv's, deploy LanSchool, explore FM system alternatives</p> <p>Approved Grants</p> <p>100 Chromebooks for 8th Grade 24 Chromebooks for PRS Technology classroom 30 Chromebooks for 2nd Grade 10 Chromebooks for STEM 14 SMART TV's 34 Surface Pro 4's</p>	<p>Servers for IP Cameras, UPS (Battery Backups) for all network closets, continue/support 1:1 chromebook deployment (All Grade Levels), Continue Staff device replacement. Network switch upgrades/replacement, Smart TV's in classrooms. explore FM system alternatives, investigate deploying virtual reality equipment</p> <p>(Grants Pending)</p> <p>TBD</p>	<p>UPS replacement batteries, continue/support 1:1 chromebook deployment, network switch upgrades/replacement, continue staff device replacement, Smart TV's in classrooms.</p> <p>(Grants Pending)</p> <p>TBD</p>
Networking Capacity	<p>LAN: 1GB Max WLAN: 1,200Mb Max WAN: Max 300Mb/300Mb</p>	<p>LAN: 1GB Max WLAN: 1,200Mb Max WAN: Max 300Mb/300Mb or more</p>	<p>LAN: 1GB Max WLAN: 1,200Mb+ Max WAN: Max 300Mb/300Mb or more</p>

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Filtering Method	Rawstream Cloud Filter	Rawstream Cloud Filter	Rawstream Cloud Filter
Support and Filtering	Rawstream Cloud Filter	Rawstream Cloud Filter	Rawstream Cloud Filter
Technical Support and maintenance	Clean all equipment, replace equipment found inadequate for PARCC and other state guidelines Maintain equipment and supplies, continue technical education, Reduce and centralize printing	Clean all equipment, replace equipment found inadequate for PARCC and other state guidelines Maintain equipment and supplies, continue technical education, Reduce color printing.	Clean all equipment, replace equipment found inadequate for PARCC and other state guidelines Maintain equipment and supplies, continue technical education
Telecommunications Equipment and services	Upgrade FIOS connectivity, explore private fiber connections	Continue FIOS connectivity, explore/implement private fiber to connect buildings together	Continue FIOS connectivity, explore/implement fiber connection if not completed already, research dedicated Bandwidth
Facilities – infrastructure including central telephone & security systems	Install additional network switches if needed, research dedicated bandwidth, replace phone system with VoIP, replace outdated firewalls, and improve Filtering methods, IP Cameras	Install additional network switches if needed for private fiber, research dedicated bandwidth. Install additional IP Cameras	Install additional network switches if needed, research dedicated bandwidth. Install additional IP Cameras
Other Services:	Avast Anti-Virus, Acronis Backup, Synology Replication, Genesis support, IEP Direct Support, LanSchool, UniFi Video,	Avast Anti-Virus, Acronis Backup, Synology Replication, Genesis support, IEP Direct Support, LanSchool, UniFi Video,	Avast Anti-Virus, Acronis Backup, Synology Replication, Genesis support, IEP Direct Support, LanSchool, UniFi Video,

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	Live Broadcasting	Live Broadcasting	Live Broadcasting
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Integration of Assistive Technology Devices to Accommodate Student Needs

The school district’s technology team (including technology instructors, Network Administrator and Technology Technician) works closely with the Director of Special Services to determine the manner by which students with special needs can be supported with the use of technology equipment.

Specialized software and hardware are used to help students with learning challenges. Devices such as color-coded keyboards, Apple Ipads, speakers, earphones, smaller mice, etc. are utilized to enhance the learning experience for children with special needs and to compliment the specialized software purchased to supplement regular education instruction.

Currently, all general education classrooms and most of the special subject classrooms in the school district contain sound systems that provide enhanced audio service to students. Teachers utilize these sound systems on a daily basis.

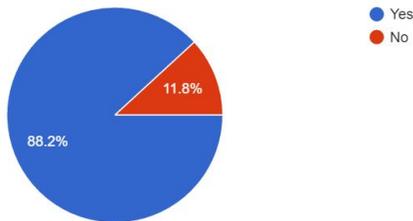
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Section 2 – Needs Assessment

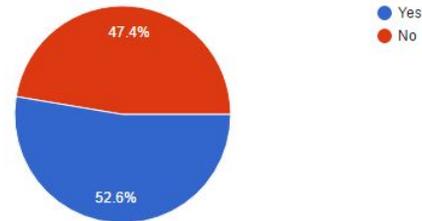
A survey of district staff was administered during the 2015-2016 school year. The survey and results is provided in Appendix A. There were 76 total respondents to this online survey. This survey is to assist the Technology Department and provide guidance in the creation of the new three-year District Technology Plan. The focus of the survey was on the following topics: Printing, Presentation Devices, Classroom Technology, and Classroom Audio. Some highlights of the survey include:

- There was a mix of what the teaching staff thought would be beneficial for training opportunities to support their use of technology. Examples such as Google Presentations, Genesis Expertise, RTIm direct training, and time to explore subscriptions and programs were explored.
- The majority of open ended responses with regard to professional development requested continued training on Google and future software, such as i-Ready and RTI direct. Staff provided information with regard to their preferences for hardware and usage of devices. In regard to staff needs and providing technology training, please see results in the chart below:

Has Little Silver been providing you with adequate technology training to utilize the current tools available and enhance student achievement.
(76 responses)

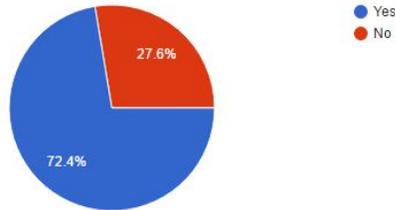


If more student text materials were provided for use in your classrooms would you feel less of a need to print?
(76 responses)

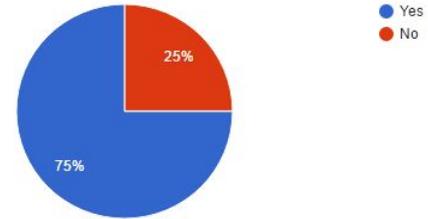


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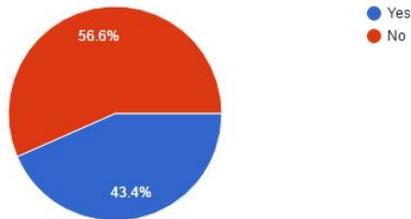
Are the presentation devices (Projector, Eno/Smart/White Board, Document Camera) that are currently in your room meeting your instructional needs?
(76 responses)



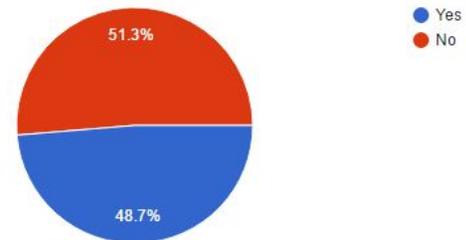
If there was a way to operate the Smart/Eno board without the need for a full workstation would you be willing to have the workstation removed from your room?
(76 responses)



Virtual reality is the term used to describe a three-dimensional, computer generated environment. Do you feel that Virtual Reality (Google Cardboard, Gear VR, Oculus Rift) will be a tool that you would consider for use in the classroom?
(76 responses)

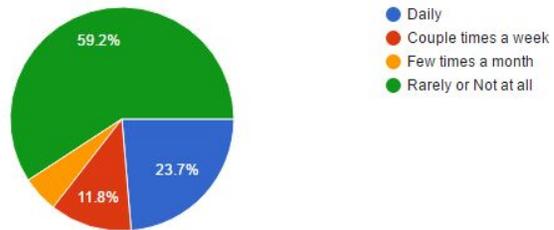


Does the FM System in your classroom work? (76 responses)



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How often do you use your FM System? (76 responses)



In addition to the survey, the District Technology Committee utilized the District Technology Readiness for Online Assessment (NJTRAx) to identify technology needs. Also, as required by the Department of Education, security, systems readiness and data assessments are continuing to be performed to ensure our district is in compliance with all known initiatives.

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Stakeholder assurance

I agree to the contents in this educational plan, and the assurance that I will be involved in the implementation of this Technology Plan for Digital Learning. Involvement in the implementation of this Plan may include: reviewing the progress of meeting the goals and objectives, being responsible for completing one or more activities in the action plan, participating in the revisions of the plan. Stakeholders associated with the district and school levels (i.e., each principal from targeted schools) should sign.

Stakeholder Name	Stakeholder Title	Stakeholder Signature
Dr. Carolyn Kossack	District Superintendent	
Dr. Pamela Albert Devine	Principal, Point Road	
Mr. Eric Platt	Principal, Markham Place	
Ms. Angie Rosen	Director of Curriculum	
Ms. Meredith Adams	Supervisor of Curriculum	
Jill Lynch	Teacher	
Mandy Orrick	Teacher	
Wendy Whittle	Teacher	
Ann Hannah	Teacher	
Dan Gaestel	Technology Administrator	
Barbara Olsavsky	Technology Technician	

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Little Silver Technology Plan Goals and Objectives

NJTRAx PARCC Readiness Rating: 9

District Technology Readiness for Online Assessment

Rating for: PARCC
Minimum
Specifications



Rating for: PARCC
Recommended
Specifications



The Readiness Ratings for Online PARCC Performance Assessment (20-day window) use a scale of 0-9, where 0 = Missing or Out of Range Data, 1-3 = Low Not Ready, 4-6 = Moderate Not Ready, and 7-9 = Ready.

NJTRAx Technology system was updated within the 2015-2016 school year

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Section 3 - Three-Year Goals for 2016 - 2019

Goal 1: Students will attain the educational technology and information literacy skills in the Core Curriculum Content Standards needed to succeed in the workplace of the 21st century.

Strategy: Educational Technology will be incorporated into all instructional practices such as but not limited to curriculum guides, lesson planning, collaborative projects, on-line assessments and utilizing online platforms (Google APPS for Education GAFE)

Indicator(s): Teaching Framework domain 2e

Objectives	Projects/Activities (include the steps required to ensure activity completion)	Person responsible for completion of activity and those responsible for reviewing or approving the activity to move forward	Timeline (mm/yr span)	Resources
<p>1.1 All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.</p>	<ul style="list-style-type: none"> ● Yearly revision of curriculum guides ● Curriculum committee will meet throughout the year to update unit calendars in Rubicon/ATLAS ● Professional Development sessions related to technology will be offered to enhance instructional practices. 	<p>Teachers, Technology Department, Professional Development Committee, Administration, School Based Tech Staff Experts</p>	<p>Continuous</p>	<p>Rubicon Atlas Professional Development Plan Lesson Plans</p>
<p>1.2 Educational technology will continue to be infused into all subject areas.</p>	<ul style="list-style-type: none"> ● Educational technology will be infused into all instructional activities ● Standards based rubrics ● Teacher Observations ● Students' Portfolios ● Lesson Plans 	<p>Administrative Staff, Technology Teachers, Teachers</p>	<p>Continuous</p>	<p>Rubicon Atlas Professional Development Plan Danielson Framework for Teachers</p>

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<p>1.3 All students will demonstrate an understanding of technology concepts, systems and operations by selecting and using applications effectively and productively.</p>	<ul style="list-style-type: none"> • Educational technology will be incorporated into all curriculum guides and lesson plans. It will be utilized as an integral tool for obtaining information in a cross curricular, project based classroom, rather than simply as an alternative to worksheets. 	<p>Technology Department, Technology Teachers, Professional Development Committee, Administration, General Education Teachers, Special Education Teachers.</p>	<p>Continuous</p>	<p>Rubicon Atlas Lesson Plans Student assessment data</p>
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Goal 2: Teachers will attain the skills and knowledge necessary to effectively and collaboratively use educational technology to assist students to achieve the Core Content Curriculum Standards.

Strategy: Professional Development will be provided to teachers, followed up with ongoing in-class coaching to support teachers in implementing meaningful technology integration. Student centered activities and differentiated instruction will be integrated with the use of technology in the daily lessons.

Indicator(s): Curriculum Standards, Lesson Plan Reviews, Teacher evaluations 2e

Objectives	Projects/Activities (include the steps required to ensure activity completion)	Person responsible for completion of activity and those responsible for reviewing or approving the activity to move forward	Timeline (mm/yr span)	Resources
2.1 Teachers will participate in high quality professional development activities in educational technology	Professional development will be offered to teachers, followed by ongoing in class coaching to support teachers in implementing meaningful technology integration.	Technology Department Technology Teachers Professional Development Committee Staff developers	Continuous	Lesson Plans Danielson Framework for Teachers PD evaluation and Staff Surveys
2.2 Teachers will develop lessons that reflect student-driven hands-on technology integration and promote the use of technology to gather and organize information to solve problems as well as develop an understanding of the nature of an impact of technology.	Student centered activities and differentiated instruction will be integrated with the use of technology in the daily lessons.	Teachers	Continuous	Rubicon Atlas Danielson Framework for Teachers iReady Google Apps for Education Teacher mobile devices

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2.3 Teachers will be evaluated on the use of technology in the classrooms.	Student centered activities and differentiated Instruction will be integrated with the use of technology in the daily lessons.	Administrative staff	Continuous	Danielson Framework Lesson Plans Teachers' Websites
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Goal 3: Little Silver Public Schools will provide and expand the technology infrastructure that enables students and teachers to access electronic information.

Strategy: The Network Administrator and the School Business Administrator collaborated to assess the needs of the district infrastructure.

Indicator(s): NJTrax Score and on going budget support

Objectives	Projects/Activities (include the steps required to ensure activity completion)	Person responsible for completion of activity and those responsible for reviewing or approving the activity to move forward	Timeline (mm/yr span)	Resources
3.1 The bandwidth in all schools will be increased to provide opportunities for students and teachers to obtain electronic information.	Maintain student internet access based on utilization needs Maintain and expand wireless network Maintain and expand wired network Redundant WAN Connections Interconnect buildings with Fiber	Network Administrator, Administration, Technology Department	Continuous	Stay current with the latest wireless standards Network Backbone
3.2 All students will have the equipment necessary to access electronic information.	Continue to implement and support 1 to 1 computing for students. Updating and sustaining student devices	Network Administrator	Continuous	Mobile Devices
3.3 All schools will maintain quality applications to support student achievement.	GAFE and web based resources and applications	Network Administrator, Administration, Teachers	Continuous	Mobile Devices

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Goal 4: To utilize emerging technologies to effectively communicate among all of the stakeholders of the school and Little Silver community.

Strategy: Continue to effectively utilize emerging technologies to foster and enrich school to home and school to community connections.

Indicator(s): Feedback from stakeholders on improved communication, Attendance at events, Stakeholder feedback

Objectives	Projects/Activities (include the steps required to ensure activity completion)	Person responsible for completion of activity and those responsible for reviewing or approving the activity to move forward	Timeline (mm/yr span)	Resources
<p>4.1 Monitor, improve and update communication among all of the stakeholders in the Little Silver School District and outside community.</p>	<p>Ensure stakeholders are receiving information in a timely and useful manner.</p> <p>Investigate other avenues of digital communication to ensure strategic messaging from school to community.</p> <p>Website redesign using students to create graphic art to enhance</p>	<p>Board of Education, Administration, Technology Department, Teachers, Technology Committee</p>	<p>Continuous</p>	<p>Student management database</p> <p>Website</p> <p>GAFE</p> <p>Social Media</p>
<p>4.2 Provide opportunities for school and outside community to learn emerging technology used in the school system.</p>	<p>Promote what students are learning through opportunities to share with outside community.</p> <p>Provide opportunities for parents to directly learn what students are learning in their day to day work.</p> <p>Seeking grants to sustain and create programs</p>	<p>Board of Ed. , Administrative, Staff, Technology Department Teachers, Technology Committee, School Volunteers</p>	<p>Continuous</p>	<p>Student management database</p> <p>Website</p> <p>GAFE</p> <p>Social Media</p>

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<p>4.3 School website will provide accurate, timely and robust information to school and outside stakeholders.</p>	<p>Utilize website building platforms that enable teachers and students to create and maintain websites easily and effectively.</p> <p>Ensure that websites are providing accurate, timely and robust information.</p>	<p>Administrative Staff, Technology Department Technology Teachers Teachers</p>	<p>Continuous</p>	<p>Student management database Website GAPE Social Media</p>
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Section 4 - Professional Development Strategies

Professional Learning

A Professional Development Needs assessment is taken by the staff at the end of the preceding year to determine perceived needs in the area of professional development. The results of the survey, along with the technology survey are brought before the Local Professional Development Committee to develop training for the school year as per the LPD Plan approved by the State and our local Board of Education. The LPD Plan includes the outline of professional development activities offered to teachers, support staff, and the administration.

The following goals were established by the Professional Development District Committee. (ScIP)

Goals :

1. Staff will become proficient in facilitating and utilizing on-line assessment tools and data warehouses.
2. Utilize technology to enhance instruction and learning.
3. Utilizing the IT department and staff developers at meetings to enhance use of Google Applications for Education (GAPE) and other associated applications.

Educators' Proficiency/Identified Need	Ongoing, sustained, high quality professional development planned	Support
Staff effectively using websites and applications that are currently available to them.	Planned professional development time during In-Service days scheduled for October 2016 and February 2017. Will be able to choose from a variety of emerging technologies and Google Classroom updates.	Teachers will be able to choose from a menu of which course they would like to take. Coaching will be offered.
Integrating technology into the classroom through group and individual projects	Technology Academy workshops will be determined by administration as they observe	Throughout the school year, workshops will be offered to support the needs of the teachers.

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	teacher needs through lesson plan reviews, walkthroughs and teacher requests.	These workshops will be conducted either during school hours or after school.
Integrating technology into the classroom through group and individual projects	Classroom and teacher coaching and new technology instructional opportunities will be made available during various staff meetings.	This will be provided by the technology department and technology teachers as the need is identified.

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Section 5 - Evaluation Plan: Narrative and Evaluation Process

The first goal in this plan illustrates the district’s view of the important role technology has to play in all of the Core Curriculum Content Standards. The Technology Committee will focus much of its yearly evaluation efforts on determining how the technology is helping enable students to meet the standards as well as to develop lifelong learning skills. The district’s Technology Committee views the Technology Plan as a work in progress rather than a fixed document; therefore, the goals and guidelines will be reviewed, evaluated and updated on an ongoing basis and the committee will make changes as necessary. The Little Silver District Technology Committee will continue to meet on a regular basis. Agendas and minutes from the meetings will be kept on file in the office of the Director of Curriculum, Instruction and Technology.

The following chart outlines the process to regularly evaluate how technology is utilized to enhance instruction and achievement

a. Telecommunication services, hardware, software and other services are improving education.	This can be monitored through various usage reports from online subscriptions and telecommunications services.
b. Effective integration of technology is enabling students to meet challenging state academic standards.	Increased student use of technology will show improved achievement at various academic levels. Monitoring will be completed using Google reports, iReady, IXL, and various other achievement reports from various web platforms that we use.
c. The LEA is meeting the identified goals in the educational technology plan.	This will be accomplished through Lesson Plan Reviews, Walkthroughs, Observations using the Danielson Framework and Summatives.

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Section 6 - Mid-Course Corrections Strategy

The Technology Committee will meet biannually to report on progress towards meeting goals and reviewing feedback. In addition, the team will stay current with technology advances and ensure that the District is on the cutting edge of the 21st Century. The Director of Curriculum and Instruction will distribute information and communication from the Department of Education to ensure that the Committee is aware of any change in policy. Evaluations from Tech Academy sessions will provide feedback to the Committee as well as the Professional Development Committee as a means of assessing program and teacher effectiveness.

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Section 7 Funding Plan

Three-Year Educational Technology Plan Anticipated Funding Table

Funding for 2016-2019 will support the district’s goals, activities, and timelines for implementation. The district’s technology budget will continue to recognize the rise in costs and it is estimated that funding will be sustained through the fiscal year 2019. The Little Silver Public School District does not receive federal funding to provide for the purchase of technology tools. The local school budget provides the majority of funds to pay for hardware, software, peripheral equipment, data management systems, network infrastructure, and the security software need to maintain a functional network. The other source of funding is from the Education Foundation of Little Silver as well as solicited grants from other agencies. The organization is a nonprofit fundraising group that dedicates its proceeds to the district solely for the purchase of technology tools that will benefit students.

Board of Education approval is pending June 14, 2016. The 2016-2019 and anticipated fiscal year funding plan is presented above.

The below table has been completed to indicate the anticipated funding of technologies to ensure that students have access to technology.

Goal No.	Activity	Funding Source (Federal/State/Private/)	Amount
1-4	Curriculum: Instructional Subscriptions	Board of Education	Approximate \$60,000 - \$70,000 yearly budget
1-4	Technology Budget (New, Repair, Printing, Subscriptions)	Board of Education	~ \$150,000 yearly budget
1-4	Various Grant Opportunities	Private	~\$50,000 - \$100,000