

# Ridgewood Public Schools



# Technology Plan


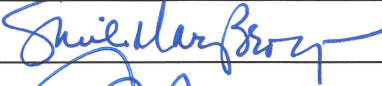

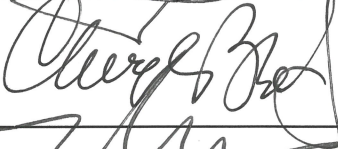
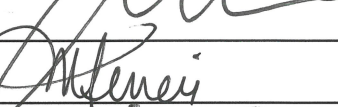
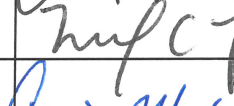
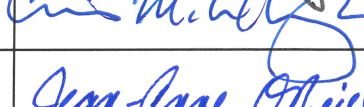
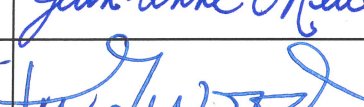
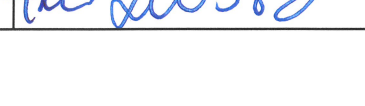


**July 1, 2016 through June 30, 2019**

Created: June 2016

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## I. Stakeholders

Stakeholder Name	Stakeholder Title	Stakeholder Signature
Daniel Fishbein	Superintendent	
Sheila Brogan	Board of Education President	
James Morgan	Board of Education Member	
Serhiy Morhun	Manager of IT	
Cheryl Best	Assistant Superintendent for Curriculum, Instruction and Assessment	
Thomas Gorman	Principal, RHS	
Mary Ferreri	Principal, Orchard	
Michael Piacenza	Assistant Principal, GW	
Christopher McCullough	Supervisor Fine and Applied Arts/Music	
Jean-Anne O'Neill	Supervisor of Elementary Education	
Danielle Wood	Supervisor of Special Education	

## II. Executive Summary

Ridgewood Public Schools Technology Plan for 2016-2019 school years was developed by RPS Technology Committee consisting of the Manager of IT, Assistant Superintendent for Curriculum, Instruction and Assessment, Building Principals, Assistant Principals, District Supervisors and Board Members.

The committee worked in collaborative sessions to identify the district's needs, and establish a district vision and 3-Year Technology Plan to support it. The committee shared and analyzed information from multiple sources, which included a district-wide staff technology survey, other feedback from teachers, staff and students, as well as the latest research and trends in educational technology and pedagogy.

**District Vision:** For the 2016-2019 school years, Ridgewood Public Schools will promote a culture of innovation, responsible and ethical digital citizenship, and forward thinking use of technology to leverage personalized learning, so as to support students' technological and **humanistic** skills for the world in which they will work and live.

### **Evidence of Mission Attainment**

1. Students will see themselves as innovative creators that can, with sustained effort, lead to impactful change implemented locally or globally through an approach of prototype, test, and redesign.
2. Students will consistently consider the humanistic, ethical, and moral implications of their technology use and creation.
3. Students will value "play" as a way to approach problem solving through both collaboration and individual explorations.
4. The students will see the ever-changing world as an environment that will require a different skill set than in past paradigms.

2016-2019 Technology plan builds on the achievements of 2013-2016 plan

**2013-2016 Goal 1:** Educator Proficiency - Enhance professional development for teachers so they can more fully integrate technology into their lessons and take advantage of extended student access to technology for learning.

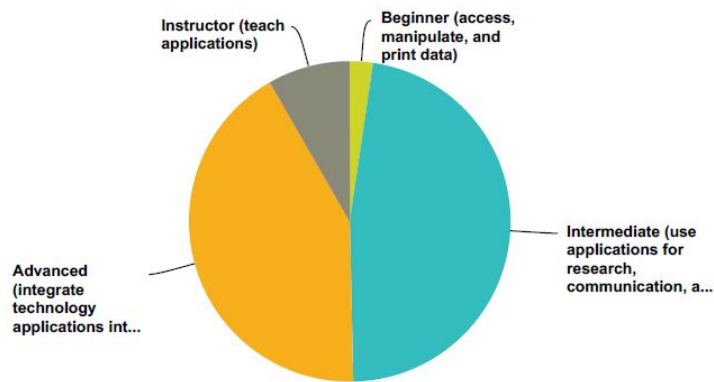
### **Benchmarks:**

- 1.1. All educators (administrators and staff) will participate in high-quality professional development (PD) activities and attain, at a minimum, intermediate proficiency levels in utilizing educational technology to enhance student achievement
- 1.2. Where applicable, all supervision and evaluation practices will address the effective use of educational technology for student achievement of the CCCS.

- 1.3. All educators will act responsibly and ethically when obtaining and using onsite and online information resources
- 1.4. Professional Development: IT skills transfer and skills development
- 1.5. Professional Development: Tools
- 1.6. Professional Development: The “A Team”-- teachers modeling technology

**Goal Achievement:**

- 1.1. Forty (40) RPS staff members attended NY/NJ Google summit in 2013-2014.
- 1.2. Over 162 staff participated in Google Summit at Smith School in Ramsey in the summer of 2014 & 2015.
- 1.3. 98% of survey respondents rated themselves as Intermediate or above in use of technology.



Answer Choices	Responses
Beginner (access, manipulate, and print data)	2% 7
Intermediate (use applications for research, communication, and professional growth)	47% 143
Advanced (integrate technology applications into curriculum)	42% 127
Instructor (teach applications)	8% 25
<b>Total</b>	<b>302</b>

- 1.4. Technology use is discussed in the pre-conference evaluation form. Online components are available in every new curriculum rolled out in the last 3 years.
- 1.5. Ongoing.
- 1.6. Fourteen (14) members of the IT Department staff attended 63 PD classes during the 2013-16 period, ranging from Networking and VMware classes to Student Information System and Business System user conferences.
- 1.7. Added “Synergise”, a contextual Google Apps training resource, and “SafeSchools”, a mandatory online PD course with self-paced sessions.
- 1.8. Developed a Teacher Modeling “A Team” with the addition of sixteen (16) Teacher Tech Coaches, requiring multiple hours of professional development.

- 1.9. Offered 54 Technology-based courses in the 2014 Fall PD Catalog, 46 Technology-based courses in the 2015 Spring Catalog, 20 Technology-based courses in the October 2015 PD Conference with Aaron Sams, the pioneer of the flipped classroom, as the keynote speaker. As a result of the awareness and PD delivered, numerous teachers received, or are receiving, Google Apps for Education Certifications.

**2013-2016 Goal 2:** Technology Access - Increase access to technology for students via more devices anytime, anywhere.

**Benchmarks:**

- 2.1. Single platform for more cost effective, consistent, and efficient administration, as well as smooth transition from school-to-school for students.
- 2.2. Maintain and enhance IT hardware, software, and network, and ensure PARCC readiness.
- 2.3. All students and educators will have regular and equitable access to technology equipment (both desktop and portable) when needed in all learning environments. This includes access to technologies with universal design features or other design modifications that assure access for students with educational disabilities.

**Goal Achievement:**

- 2.1. Chromebooks are the common platform for students in grades 3-12, with a 1:1 "Take home" model in grades 6-12 providing anytime, anywhere accessibility, and a 1:1 "Classroom cart" model in grades 3-5. Shared Chromebooks, PC laptops, and iPads are available for students in grades K-2. Teachers are 1:1 PC laptops.
- 2.2. Networking equipment and cabling have been upgraded at RHS, GW and BF to provide a reliable 10Gbps backbone from each IDF to the main Data Center at the Education Center building, and 1Gbps connection to each wired device. Elementary school networks provided with 1Gbps backbone and 100Mbps to the client. Internet bandwidth has been increased from 150 Mbps to 1 Gbps. WiFi coverage is available in all buildings with an AP in each classroom. RHS wireless access points have been upgraded to the 802.11AC standard. IT staff provided on-site support during PARCC testing.
- 2.3. Over 5,500 Chromebooks were distributed to students for the district's 1:1 Initiative in the last three years. Presentation equipment is available in every classroom (SMARTboard or LCD Projector and document cameras). Completed the migration of a PC platform for teachers. Teacher laptops are being replaced to keep within a five-year refresh cycle. Teacher desktop PCs are being phased out in the classrooms, and replaced by docking stations for teacher laptops. General purpose computer labs are being phased as a result of the district's 1:1 Initiative. PC and MAC labs remain for specialized education applications.

Universal design features are available through accessibility settings on the Chromebooks, and are enhanced by such programs as “Read&Write for Google” for all students. Specialized devices, such as iPads, are available for students with disabilities to allow them equal access to educational technology. All these improvements effectively removed a “digital divide” in the classroom and across school buildings.

### III. Goals and Objectives 2016-2019

Ridgewood Public Schools

NJTRAx PARCC Readiness Rating: **9**      NJTRAx Digital Learning Readiness Rating: N/A

**Goal 1:** The RPS educational community will embrace an ever-changing world and capitalize on how new technologies and strategies can engage students in preparing for the fluidity of the future in which they will live and work.

**Objective: 1.1** The RPS educational community will engage in activities that empower students to extend the transformative use of technology tools in a rich learning environment that encourages high order learning activities to support connections throughout the lives of students and the world beyond the instructional setting.

#### **Strategies:**

- Administrators will support teachers in their exploration and use of technology, acknowledge teachers who are achieving high standards in innovative use of technology, and continue to expand their knowledge of transformative uses for technology woven throughout instruction.
- District will provide professional development opportunities for the educational community to enhance knowledge and skills in the area of technology integration. This work will assist educators in identifying, analyzing, learning about and implementing new technology resources.
- Teachers will craft learning experiences for students that incorporate five interdependent characteristics of meaningful learning environments: active, constructive, goal directed (i.e., reflective), authentic, and collaborative.

#### **Indicators:**

- Learning experiences for RPS educators that are progressive, supportive, and innovative.
- Lesson plans and/or school-wide activities that highlight the implementation and experimentation of new technologies and strategies.
- Student engagement throughout transformative and productive technology integration.



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
Professional Development opportunities targeted toward differentiated and engaging activities woven with hands-on practical experience.	Assistant Superintendent Building Administrators Technology Coaches RPS Educators	Annual	Funding for professional development sessions  Internal experts and outside consultants
Recognition/reward for innovation and transformative use of technology to highlight best practices and provide a standard of best practice.	Administration	2017-2018	Set of standards regarding best practice, committee for selection, and vehicle to house best practice and products.
Increased use of digital portfolios	Students and teachers with administrative support	2017-2018	Technological tools to create digital portfolios
Establish K-12 Technology Resource Warehouse	IT Department, Administrators, & Technology Coaches	2017-2018	Progressive lesson plans Video of exemplary lessons PD Materials & Opportunities

**Objective 1.2** Create, document, and manage a well-articulated K-12 digital literacy curriculum, which integrates a balance of humanism, ethics, and moral behavior with technology use.

**Strategies:**

- Expand the role of the school libraries to incorporate maker-spaces and function as the hub of media literacy
- Utilize tech coaches in concert with media specialists to train all teachers on the goals of the media literacy curriculum and how to incorporate those goals into varied content areas when using technology in the classroom
- Establish maker-space committee to foster instructional innovation

- Review and update social and emotional learning curricula/materials and programs and deliberately address technology use in all SEL benchmark.

**Indicators:**

- A well articulated (vertically and horizontally) curriculum in Rubicon Atlas, which is available to all faculty and supports the values of creativity and student directed learning.
- Faculty’s regular use of the curriculum
- Addition of engineering and design courses for students
- A vibrant Makerspace culture that is integrated into all Ridgewood Public Schools

<b>Projects/Activities (include the steps required to ensure activity completion)</b>	<b>Person responsible for completion of activity and those responsible for reviewing or approving the activity to move forward</b>	<b>Timeline (mm/yr/span)</b>	<b>Resources</b>
Write and adopt K-8 media literacy curriculum	Assistant Superintendent Supervisor of English Language Arts Media Specialists	Sept 2016 - August 2017 Adopted at August 2017 BOE meeting	Curriculum writers Funding for writers
Update K-5 Open Circle program to improve Social and Emotional Learning	Elementary Principals and teachers	February 2017 - Roll out of new program materials	Purchase of new Open Circle Materials Professional development for all K-5 teachers
Pilot maker-spaces in an elementary and high school	High School Principal Orchard Principal Media Specialists	2016-2017 at RHS 2017-2018 at Orchard	Space in buildings Funds for supplies/materials
Expand maker spaces to MS and other elementary schools	Principals Supervisor of Fine and Performing Arts Media Specialists	2017-2018 and 2018-2019 school years	Space in buildings Funds for supplies/materials Professional development about maker-space culture to support varied curriculum

**Objective 1.3:** Ensure that students are critical consumers of information by improving skills in authentic research and evaluation and validation of information and understanding their position as a target audience of information.

**Indicators:**

- Improved skills in authentic research and the evaluation and validation of information
- Improve students’ understanding of their role as a target audience for information by considering information and analyzing its source and potential agendas
- Improve students’ understanding and skill in producing information for targeted audiences
- Students operating safely in cyber spaces

**Strategies:**

- District-wide collaboration and decision making regarding expectations for research in all content areas and grade levels
- Utilize tech coaches in concert with media specialists to train all teachers on the goals of the media literacy curriculum and how to incorporate those goals into varied content areas when using technology in the classroom

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
Create a K-12, standards-based research continuum, outlining research skills to master at each grade level	BOE Assistant Superintendent ELA Supervisor K-12 Media Specialists	September 2017 - August 2018 Adopted at August 2018 BOE meeting	Funds for summer curriculum writing Professional development
Teacher PD in all content areas to establish awareness and support for research expectations and protocols at each grade level.	BOE Assistant Superintendent All Content Area Supervisors K-12 Media Specialists	Throughout the 2018-19 School year	Committee meeting time - release from classrooms

**Objective 1.4:** To foster a habit of mind through which students and teachers consistently consider the ethical and moral implications of the use of technology and an understanding of the power of their voice when producing content.

**Indicators:**

- Witness discussions among teachers and students about current technological advancements and their potential positive and negative impact on society
- Witness increased student empathy in online and personal interactions
- Increased understanding of plagiarism and a decrease in its incidence
- Awareness and deliberate management of their digital footprint

**Strategies:**

- Utilize tech coaches in concert with media specialists to train all teachers on the goals of the media literacy curriculum and how to incorporate those goals into varied content areas when using technology in the classroom
- Foster collaborative decision making among all administrators in setting consistent District-wide values for the use of digital resources
- Involve students and teachers more in the determination and evaluation of cyber security and publishing strategies
- Develop courses through which students create and produce innovative projects aimed at solving real world problems and sharing them with a global community.

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
Write Ridgewood technology code of ethics and incorporate this code into Rubicon for use in all content area curricula	Superintendent Assistant Superintendent Manager of IT High School Principal Supervisors	September 2016 - August 2018	BOE approval
Train teachers on ethics code and how to incorporate direct	Staff developer Building Administrators	2018-19 School Year	

instruction on technology ethics into their lessons			
Train teachers on social and emotional learning aspects of technology to incorporate direct instruction into their lessons	Assistant Superintendent for CI&A High School Principal Middle School Principals	HS - 2018-19 school year MS - 2018-19 school year	
Develop an engineering strand of courses starting with the HS and moving to MS and elementary (Project Lead the Way)	Assistant Superintendent for CI&A High School Principal Middle School Principals Elementary Supervisor Science Supervisor	HS - 2017-18 school year MS - 2018-19 school year Elem - 2017-18 school year with alignment to NGSS	Funding for program curriculum and materials Funding for comprehensive teacher training in PLTW or chosen program

**Goal 2:** Technology Access - Maintain and improve equitable anytime, anywhere access to technology for the students, teachers, and staff.

**Strategies:**

- Establish and maintain sustainable equipment refresh cycles
- Maintain reliable connectivity infrastructure to support digital learning
- Constantly research, evaluate and pilot new and existing technology to optimize the delivery of educational resources and content.

**Indicators:**

- Students and teachers have access to relevant technology at all times
- Reliable and safe Internet access is provided to all users

**Objective: 2.1** Complete wired and wireless network infrastructure upgrade.

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
Upgrade “end of life” access points at middle and elementary schools to the new 802.11AC capable APs	IT Department	Summer 2016	TTi Wireless - integrator
Upgrade ethernet cable runs to APs at elementary schools with Cat 6 certified cable.	IT Department	Summer 2016	DynTek Services
Complete backbone fiber upgrade at elementary schools to 10Gbps	IT Department	2017-2018	

Complete upgrade of switches at elementary schools	IT Department	2017-2018	
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**Objective: 2.2** Maintain a 1:1 device fleet for teachers and students in grades 3-12, and a shared device program for lower grades and specialty computer labs.

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
Provide new Chromebooks for students in grades 6 and 9. Collect devices from students at the end of grade 8 and 12, and students who withdraw from the district. Use collected devices to supplement lower grades, loaner fleet and repair needs. Reevaluate annually for the most effective sustainable refresh cycle.	IT Department, School Administration	Annual	Lease purchase funds. Inventory & repair history data.
Maintain a sustainable and effective insurance/repair program to guarantee 1:1 device availability for students.	IT Department	Annual	Inventory & repair history data.

Evaluate and establish a student run help-desk program at the high school and middle schools.	IT Department, School Administrators	2016-2017 - research & pilot 2017-2018 - establish	
Maintain a 1:1 device fleet for teachers and staff following a five year refresh cycle	IT Department	Replace Summer 2016 - EC Desktops Summer 2017 - Latitude 5420 Summer 2018 - Latitude 5430	
Evaluate & implement new Inventory management solution that fits demands of 1:1 environment	IT Department	2016-2017 - Evaluate 2017-2018 - Implement	

**Objective: 2.3** Upgrade Data Center infrastructure following a seven (7) year cycle to ensure uninterrupted and reliable network and infrastructure performance.

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
Upgrade main Data Center (EC)	IT Department	Summer 2017	Latest industry trends and cost/ benefit analysis.
Upgrade Disaster Recovery (DR) site (RHS)	IT Department	Summer 2018	



**Objective: 2.4** Maintain and improve physical and online security of students and staff.

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
Add video surveillance storage to increase video quality, retention period, and more cameras.	IT Department	Summer 2016	Dell storage engineers
Evaluate each building security camera coverage. Add or replace cameras as needed to eliminate “blind spots” and increase security.	IT Department, School Administrators	Annual	Security Integrator support
Evaluate and adjust Internet security and filtering rules. Add additional tools as required.	IT Department, School Administrators, Teachers	Ongoing	Best practices, Feedback from teachers and students.

## IV. Budget

Explore grant opportunities for Maker Space pilot programs.

Goal Number	Activity	Funding Source	Amount
2.1	Upgrade WAPs	Lease Purchase, E-Rate	\$255,000
2.1	Upgrade Ethernet cables	Lease Purchase, E-Rate	\$61,000
2.1	Fiber Upgrade at elementary schools	Lease Purchase, E-Rate	\$10,000
2.1	Upgrade Switches	Lease Purchase, E-Rate	\$200,000
2.2	Chromebooks for 6 and 9th grade students	Lease Purchase	\$250,000/year
2.2	Chromebook Insurance/Repair	Technology Fee	\$90,000/year
2.2	1:1 staff fleet refresh	Lease Purchase	\$100,000/year
2.3	Data Center upgrade	Lease Purchase	\$100,000
2.4	Video Surveillance storage	Lease Purchase	\$46,000
2.4	Add or replace security cameras	IT budget	\$15,000

## **V. Evaluation and Review**

Ridgewood Public Schools' Technology Plan provides the District's vision and direction for improvements of a digital learning environment for the three (3) year period of 2016-2019. It outlines and maps initiatives and activities required to support and enhance transformative use of technology, promote innovation in education to better prepare our students for the future.

However, in the world of rapid technological advancements we recognize that the success of this plan will require regular progress monitoring, evaluations and correction if needed.

The District will employ a variety of tools and procedures to evaluate the progress and effectiveness of our actions such as:

- NJTRAx Technology readiness survey
- NJTRAx Digital Learning survey
- Annual District-wide technology survey
- Other targeted surveys

Data collected from these sources will be analysed and discussed during department or committee meetings. Based on the outcome, the Technology Plan will be updated accordingly if required.

**EXCERPT FROM THE MINUTES OF THE REGULAR PUBLIC MEETING OF THE  
BOARD OF EDUCATION OF RIDGEWOOD  
BERGEN COUNTY, N.J. AS RECORDED IN THE  
OFFICIAL MINUTE BOOK**

The Board of Education of Ridgewood, in the County of Bergen, New Jersey, convened in public session on Tuesday, June 28, 2016 at 5:00 p.m. in the Board Room at the Education Center, 49 Cottage Place, Ridgewood, New Jersey.

The following members of the Ridgewood Board of Education were present:

Ms. Christina Krauss; Mr. James Morgan; Ms. Jennie Smith Wilson; Mr. Vincent Loncto, Vice-President; Ms. Sheila Brogan, Board President

The following members were absent: None

**VI. CONSENT ITEMS**

**B. ADMINISTRATION**

**ii. Approval: Three -Year Technology Plan**

Approval of the Three Year Technology Plan for the Ridgewood Public Schools, effective July 1, 2016 through June 30, 2019.

The Board had received background information.

Mr. Morgan moved approval of Consent Item B – Administration.

Ms. Smith Wilson seconded the motion, which carried by the following roll-call vote:

AYES: Ms. Krauss, Mr. Morgan, Ms. Smith Wilson, Mr. Loncto, Ms. Brogan

NAYS: None

I certify that this is a true and correct excerpt from the Ridgewood Board of Education minutes.

\_\_\_\_\_  
Date

06/29/16

\_\_\_\_\_  
Jennifer Ulman  
Assistant Board Secretary