Hillsborough Board of Education

Technology Plan

2016-2019

HILLSBOROUGH
Board of Education

cc: L. Antunes
J. Handler

RECEIVED

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November 1, 2016

TO: Jorden Schiff, Superintendent
Hillsborough Twp. School District

FROM: Melissa Stager
Somerset County Education Specialist

SUBJECT: **Technology Plan for Digital Learning Review**

Congratulations! As of June 22, 2016 a review committee determined that Hillsbrough School District has a viable plan in place to systemically transform instruction through the development or enhancement of the effective implementation of digital learning. This technology plan for digital learning is expected to be implemented through June 30, 2019.

If you have any questions, please email Melissa.Stager@doe.state.nj.us

c: Roger A Jinks, ECS
Linda Carmona-Bell

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Vision Statement

We believe that technology is a tool for enhancing, informing, and transforming learning that builds equity and promotes independence and collaboration in order to create 21st century learners who are responsible digital citizens. All students should have equal, ubiquitous access to technology resources as they would to any traditional non-technology resource. It is the vision of Hillsborough Township Public Schools that students be engaged in a stimulating academic environment that supports rigorous student-centered, inquiry-based learning.

Background

The Hillsborough Township Public Schools have been strategically planning for technology since 1982. The thrust of the original plan was to establish a comprehensive computer literacy program. A second five-year plan was approved in 1989. The second plan focused on the equitable distribution of hardware in the six elementary and one middle school laboratories and expansion of the laboratory model in the high school. The second five-year plan expired in June of 1994, and the process was begun by which a new plan would continue the district's technology initiative.

During the 1993-1994 school year, a Professional Technology Advisory Committee and a Citizens' Technology Advisory Committee were formed to design the third technology plan that would provide a multi-phased framework and direction for continued use of technology in the Hillsborough Township Public Schools. The purpose of the technology plan was to articulate a vision and goals which ensured that educational technology was appropriately and equitably integrated into instruction and management to increase student learning, enhance the teaching process, and increase the efficiency of the school system.

The Professional Technology Advisory Committee was comprised of district personnel including teachers, administrators, library/media specialists, and representatives from child study teams and the support staff. The parallel Citizens' Technology Advisory Committee was formed and included members of the Board of Education, volunteer representatives from the community, and the Superintendent, as well as the Assistant Superintendent, and Supervisor of Technology. The sub-committee chairpersons of the five Professional Technology Advisory Committee sub-groups served as liaisons between the two groups. Both committees met on a regular basis through the spring and fall of 1994. The five subcommittees from both groups researched the integration of technology into curricula, the use of technology in library media centers, technology tools for administrative and learning management, infrastructure, and staff development.

The Board of Education unanimously adopted the Technology Plan in February of 1995 and for the next two years supported the plan with both financial commitment and community support. The Hillsborough Educational Foundation supported technology grants and two successful Netday wiring projects. Home and School Associations supported local technology initiatives both in the classroom and in support of their local area networks.

In the summer of 1997, the district began to formally examine the plan as teachers, supervisors, and administrators integrated the New Jersey Core Curriculum Content Standards into all district curriculum. During the fall of 1997, district staff, in parallel with the strategic planning committee, again revised the plan to reflect activities to support the Core Curriculum Content Standards and expand teaching strategies beyond the classroom, including distance-learning activities within the instructional framework of the revised curriculum.

A second plan was submitted to the Board of Education in November of 1997 to reflect the major changes in the use of technology within the district.

During the two years after the approval of the 1997 technology plan, the district moved from an elementary computer lab model to placing computers at point of instruction within the third through fifth grade classrooms. The dated computer literacy curriculum was replaced by a computer education curriculum that focuses upon the use of technology as a tool to support the core curriculum content areas. Through the district's active and highly successful involvement in the Statewide Systemic Initiative (SSI), math, science, and technology activities throughout the district have been integrated and instruction greatly enhanced. Local networks were installed in each building, the buildings were connected with a wide area network, and Internet access was provided to twenty percent of the classrooms. All administrators were placed on an email system and software was purchased to facilitate the budget, personnel, student scheduling, grading, and attendance process.

Community and business groups have continued to actively support the increased use of technology within the district. A supportive Board of Education has maintained a proactive vision and incorporated meaningful technology within the two facilities under construction. The staff has continued to increase its technology background through the continuing education course offerings, out of district seminars, and courses at local colleges. The Hillsborough Education Foundation has sponsored numerous technology-related activities and successfully spearheaded the Netday wiring of all district 3rd, 4th, 5th and 6th grade classes. Within two years, significant progress has been made throughout the district both in developing and implementing a comprehensive infrastructure, and in the meaningful use of technology as an instructional and administrative tool.

During the summer of 1998, the school district was able to offer its email and Internet access to the municipal government as an increased sharing of resources. PCs were installed in every 3rd and 6th grade classrooms and existing older PCs were upgraded to provide access to the Internet and run the Windows95 operating software. In the winter of 1998-99, all middle school classrooms were wired, as every teacher there received a classroom PC and email access. A fiber connection between Bloomingdale School and Hillsborough Elementary School during October 1999 enabled the maintenance and transportation staff to access the district network. Such access provided them email access and the ability to connect to the SMARTS budget software.

In the fall of 1998, a consultant was hired to design and project manage the communications and data infrastructure of the new elementary school as well as the renovation/expansion of the current high school. During that process, a design was developed that not only provides a data network for the new facilities, but defined a means by which the district phone system can be systematically upgraded to incorporate voice mail and take advantage of the fiber connectivity between each district site.

Netday99 completed the wiring of all the district elementary and middle school classrooms in the spring of 1999. During the high school renovation and the addition of a technology wing, the high school infrastructure was upgraded to increase bandwidth in the summer of 1999. In the high school and new elementary school, Auten Road, routers and fiber backbones provided data speeds of 100 megabit to the desktop. Beginning in September 1999, IP based telephony services were piloted in the Auten Road School, and permanently installed during the 2000-2001 school year.

The addition of a distance learning lab at the high school during the fall of 2001 provided all district staff and students a center in which video conferencing and the creation and storage of video content will enable the core curriculum to be further supported by virtual conferences and increased communication.

As the high school renovation reached completion and all district local area networks were in place, the

technology plan was again revised to carry the district forward from the spring of 2001 through June 30, 2004. This plan reflected the need for the installation of switched local areas networks to increased bandwidth in the six remaining elementary schools and the middle school, the creation of a fiber-based metropolitan area network, the upgrade of current equipment, the continued increase for staff development opportunities, increased distance learning facilities at point of instruction, and a strong focus on continued integration of technology into all curricula. In 2004, the plan was updated to build itself around a unified network district wide. The 2004, 2007 and 2010 technology plans focused on building a solid platform that allowed continuous computing district-wide. It additionally began extending resources outside the facilities to allow students and staff access to school resources anytime from nearly anywhere.

Since 2004, the technology plan has focused on expanding the current computing environment, adding new digital resources and services every year. Online resources, applications and communication tools are no longer secondary resources for the district, but are now required for the normal day-to-day operations.

As technology use reached a critical mass, the 2013-2016 technology plan focused on providing more ubiquitous access for all students throughout the day, separating the need for technology as a supplemental tool for learning to being infused in the normal everyday tools used as part of the regular school day experience. It was in the fall of 2015 that the entire district issued laptops and tablets to all students to use throughout the school day, making the district one of the first one-to-one districts in grades K-12, of its size in the nation.

The current technology plan builds upon the 2013-2016 plan and details a stronger emphasis of seamless classroom integration and leveraging technology to transform the learning environment. These dual goals help ensure that the current program is sustainable both technologically and financially. The plan also focuses on continuing the many professional development and support programs, implementing a strong digital citizenship program, and continuously improving the infrastructure so it evolves with increased usage.

Technology Plan Development and Review Committee

Title	Name
Superintendent of Schools	Jorden Schiff
Supervisor of Science	Kim Feltre
Director of Technology	Joel Handler
Assistant Superintendent	Lisa Antunes
Technology Integration Coordinator	Todd MacDonald
Technology Integration Specialist	Cara Flash
Woodfern- Principal	Steven Kerrigan

HMS- Vice Principal	John Ciccarone
ARIS- Computer Resource Teacher	Jennifer Tuller
HMS- Computer Support Teacher	Mary Ellen Davies
Grade 4 HES Teacher	Danielle Gradone
HHS English Teacher	Lindsay Knapp

State Reporting and NJTRAx Technology Readiness Reports

The district fully participates in the New Jersey State's data collection programs including NJSmart, NJTRAx technology readiness system and the NJTRAx Digital Learning system.

Attached in Appendix A is the final report from the NJTRAx Technology Readiness System. In analyzing the report, the district is technology ready in regards to all hardware deployment. All hardware is updated on a regular basis to ensure it can adequately meet the educational needs of all students and staff. Equipment is refreshed on a period cycle to ensure acceptable performance and capabilities to meet the educational goals of the program. On the report we scored a 6 out of 9 (moderate) in meeting PARCC recommendations. Based on the system report, our bandwidth is moderate for the technology rollout we have. In further analysis though, it was not recommended to invest additional local resources into bandwidth as our current usage reports are not near 80% utilization.

The district also participated in the NJTRAx Digital Learning survey reporting system in the spring of 2016. The district, however, did not meet the minimum number of survey responses to generate the results, therefore the district based our reflections on internal data collection tools to help ensure accurate technology planning.

The district is meticulous about ensuring the data in our student information system. Doing so ensures we have accurate accounting for all student information. Since the inception of the NJsmart data upload, the district has had only 1 error, which was caused by another district accidentally claiming a student who was enrolled in Hillsborough. See NJsmart report in Appendix B.

Needs Assessment, Reflection and Adjustments

School vs. District Needs Assessment, Reflection and Adjustments

It is imperative to understand that the district's focus on equity across all students, staff and schools is an important decision factor where it pertains to technology integration, training and deployment. A concerted effort has been made, and continues to be made, when it comes to individualization and standardization. With the exception of special trials and pilot programs, the district focuses on grade level implementations of hardware and software, keeping consistency of programs across all schools. It is for this reason that this technology plan does not individualize different schools, but rather aligns specific objectives to the grade level(s) in which they apply.

Grades 9-12	Hillsborough High School
Grades 7-8	Hillsborough Middle School
Grades 5-6	Auten Road Intermediate School
Grades K-4	*Schools:*
	Amsterdam Elementary School
	Hillsborough Elementary School
	Sunnymead Elementary School
	Triangle Elementary School
	Woodfern Elementary School
	Woods Road Elementary School

Needs Assessment, Reflection and Adjustments Detail

The technology needs assessments pertaining to educational technology revolve around the district's technology goals and what is needed to fulfill them. Hillsborough is a one-to-one district for students in grades K-12 and continually collects data in multiple facets to help guide all technology related decision making. This data helps determine the best practices for classroom integration and the need for professional development, hardware procurement and determining the continuation of software investments as related to utilization. Additionally the district supervisory team is heavily involved in piloting various educational software applications to constantly iterate and find the best resources that will maximize student learning.

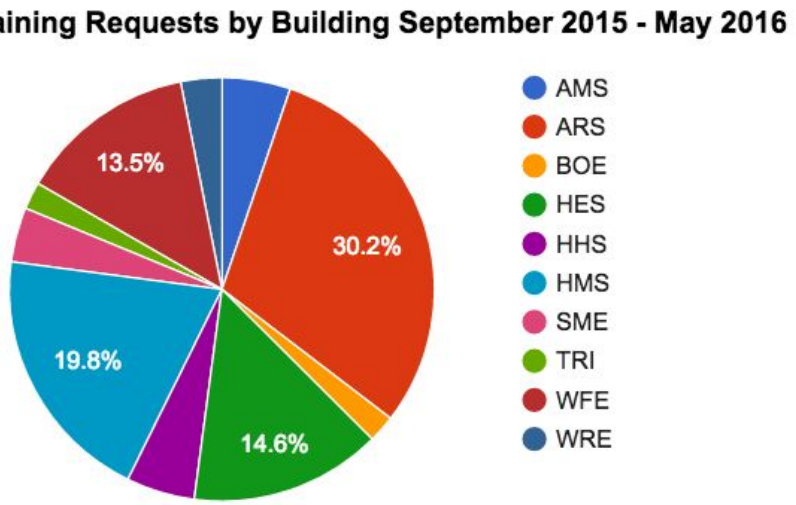
During the 2014-2015 school year, the district developed a Technology Integration Rubric and was shared with district staff at the beginning of the 2015-2016 school year. The Technology Integration Guide / Rubric is the district's framework for guiding the effective use of technology to enhance instruction, as seen in Appendix D. The Technology Integration Guide/Rubric consists of four overarching goals: Globalizing the Curriculum, Asynchronous Learning, The Creation, Collaboration, and Publication of Digital Content, and Productivity Tools. Each strand is defined and is broken down into substrands. Technology related professional development opportunities and courses are aligned with the Technology Integration Guide / Rubric. Initially, the focus of this rubric is designed to be used as a self guiding document where teaching staff are able to plan and self-assess the use of technology effectively in the classroom.

Towards the end of the 2014-2015 school year, a survey was sent out to all staff to determine the comfort level with specific technology skills, the skill level with specific tools/applications, and to evaluate interest in additional training of specific tools/applications. Results for this survey are available in Appendix F. The Technology Integration Team utilized the data to drive the content to be covered in the 2015-2016 Turnkey Training program. The data was also shared with each school's Computer Support Teachers so they could better support staff needs and interests. Lastly, the data below showed that district staff members are taking advantage of the numerous timely and targeted training opportunities offered by district Turnkey Trainers, Computer Support Teachers, and District Technology Coaches.

Staff and student surveys are conducted to determine areas of concern in regards to technology as a whole. A key part of our technology professional development is our Turnkey Training program, where a

cohort of teachers offer technology courses throughout the year. Surveys are conducted as part of the program to evaluate the effectiveness of specific courses. For each course, attendees are asked to rate the following four questions on a scale of 1 to 4: Overall satisfaction with the course, Course content was clear and easy to understand, Course length was appropriate for the topic, Course was useful and relevant. Results for the surveys can be found in Appendix C. All classes received very high ratings. Over 1,000 open-ended responses were submitted by attendees. More than 75% of the comments were commendations about the instructor, while the other quarter discussed recommendations. Some comments included that too many tools were covered in a course and there was not enough time for staff to explore the individual tool. Based on the ratings and feedback, the courses, agendas, and activities continue to be re-examined. This feedback matches what the district has learned in conversations with individual Turnkey Trainers and the evolution of next year's program will be adjusted accordingly.

In addition to Turnkey Training Courses, the district has also begun tracking the efforts of its time-of-need training opportunities and online knowledge base. The district incorporated the use of an online video training platform to push out trackable videos as convenient training opportunities available to both staff and students. Additionally, the district technology staff has continued to grow its extensive online Knowledge Base with resources and training materials. Through data tracking, the district's Technology Coach has started a program that will be expanded to allow the technology department -- at the computer support teacher level -- to access the various needs of the district, based on the requested support. Through this venue, the technology department can see trends in training requests/needs in real-time and act accordingly.



The use of staff and administrative questionnaires, meetings with district level supervisors, the district's Technology Integration Team, committee discussions and informal input from students and community members provided the following needs assessment in order to achieve the district's technology goals:

- Reliable systems with minimal downtime are continually needed district-wide.
- All students and staff must have proper working equipment at all times in order to ensure unfettered access to needed resources.
- The continuation of staff training and in-service programs around technology integration are essential.
- Consistent and expanded administrative use of technology in all forms of record keeping and communication is essential.
- Student motivation for technology use remains high.
- Increased awareness of topics in digital citizenship and cyber safety are needed amongst both students and staff.
- Site-based hardware and software support must be maintained, as the use of technology is now an

integral part of the educational process.
- More STEM related courses/activities and those that integrate coding are needed to meet the needs of 21st century learning.

These needs have been reflected in the goals and objectives developed by this Technology Plan. Future student, teacher and administrative surveys and other data collection points will need to be conducted to assist the district in continually assessing the success of the district's technology program and the students' attitudes towards that use.

Hardware and Optimal Network Needs Assessment, Reflection and Adjustments Detail

When it comes to equipment assessment, decisions are based on constituent feedback. As the district evaluates technology it often uses pilots and committees of staff and/or students to help ascertain the most effective equipment to deploy. In the fall of 2015 the district conducted a needs assessment of the technology tools available to determine the best technology fit for replacing staff devices (Appendix E). A committee of 30 staff members was then used to select and pilot models that fit the needs of the district. As decisions were made on selecting student one-to-one devices, both iPads and Chromebooks were evaluated throughout grades 5-12. In 2018, as the student one-to-one devices are refreshed, the district will continue to collect feedback of students and staff to ascertain the optimal equipment needed to address the learning goals of the district at that time.

To ensure a smooth and reliable experience, the Information Technology Department is always analyzing network traffic and end user experience to ensure proper facilities exist (sufficient bandwidth and minimal network saturation). Using network analysis the district is able to monitor traffic reports, utilization reports and utilization trends to ensure adequate resources exist to meet the district's needs. As new equipment is added, changes are planned and executed on the back-end support to ensure minimal impact on the users (both students and staff's) experiences.

Professional Development

Professional development is coordinated by the office of the Assistant Superintendent for Curriculum headed by Dr. Lisa Antunes. The district's Professional Development is guided by the County approved Professional Development Plan. This plan formally outlines all training needs for the district including technology training and is incorporated with the district's overall staff development initiative.

Technology training is an integral part of the professional development program for all staff. The district currently has a Technology Integration Coordinator and Technology Integration Specialist who help oversee the technology-specific professional development programs. This includes coordinating and delivering time of need training during the school day, online training resources and documentation, summer training courses and technology turnkey courses. These have been instrumental in increasing the staff members' technology capabilities.

Summer technology training has been a staple in the district for the last four years and it will continue in the future. The summer of 2015 was the first year where the training was entirely available as an online module, to be completed at a time and place of the staff members' choosing. Several online modules were curated last summer (using the Synergyse Training platform) and staff were able to choose which ones to complete. Future plans will include increasing the online offerings during the summer and the school year and exploring online and/or blended courses. Targeted summer training workshops also take place for teachers

involved in the Turnkey Training program. These workshops are designed to familiarize the trainers with the district's Technology Integration Guide/Rubric, to introduce new tools and strategies, and to build course agendas and activities collaboratively to ensure that courses are consistent throughout the district's 9 schools.

The Turnkey Training program has been in place since the 2012-2013 school year and it continues to meet or exceed staff needs. This is evident by the 90% of staff who complete turnkey training at times of their choosing and the 25% of staff who take beyond the required 6 hours of professional development. As of the 2015-2016 school year, all turnkey courses are aligned to the Technology Integration Guide / Rubric and all follow agendas that were set during summer training.

Each school also has a Computer Support Teacher to manage the daily operation of technology at the building level. The upper schools have, two (ARS, HMS) or three (HHS), computer support teachers to ensure that staff and students continue to receive a high level of support. The Computer Support Teachers work closely with classroom teachers to review software/tool selection, ensure that all physical equipment is working, and to promote the effective integration of technology to meet the needs of all learners. Whenever possible, they are available for time of need training and are available to co-teach (as a modeling technique), if necessary.

The district also has utilized One-Year Technology Coaches over the past three years. The Tech Coaches work closely with the Technology Integration Team to ensure that their training efforts match the district's vision for effective technology integration. Tech Coaches are available to assist teachers in all nine schools with all of their technology training needs.

The district has also supported school visitations, workshop attendance and mini-workshops on technology. Department meetings and PLC sessions often involve technology trainings and best practice discussions. In conjunction with many purchases of new hardware and software, training from the vendors has often been negotiated into the price. Depending on the item or service being purchased, this training has either been geared toward district technical staff, professional staff, or both.

Since 2012-2013, all administrators and teachers have had district-issued Lenovo X220 laptops, which will be replaced by Lenovo Yoga laptops. This upgrade is part of the budget for the 2016-2017 school year. The staff 1:1 device initiative is at the core foundation for nearly all district communication and collaboration. Staff receive device training whenever a new device is issued, then teachers and administrators can continue to take part in all of the other diverse technology training opportunities that are offered by the district.

The district also maintains several dynamic online resources to provide additional support and training to staff: an online Helpdesk to streamline work order requests and to manage all signups for online trainings; a Knowledge Base that houses training guides so staff can review documentation/videos at their own pace; a Tech Coach blog that shares tips and tricks while highlighting outstanding learning activities going on throughout the district; and the Synergyse training platform that provides time-of-need, fully interactive training lessons (with audio and video) for Google Apps. All of these resources are updated regularly to ensure that the staff members are accessing relevant material.

Budget

Implementation of the goals and objectives in this plan will require a continued commitment of funds over several years. All technology initiatives are funded centrally from the district's technology budgets. This ensures equity in deployment of equipment and services. It also ensures maximum cost savings as bulk orders allow deeper discounts. Grants and partnerships will contribute to the implementation of the plans along with the national E-Rate grant and annual district budget allocations. Priorities need to be set based upon maximizing the instructional and administrative efficiency and effectiveness of technology use, logically sequencing acquisitions, advances in technology and financial aid opportunities. The 2016-2017 spending plan reflects the funding needs of the goals and objectives of this plan, maximizing district expenses within this very tight budgetary climate.

The large technology initiatives including staff one-to-one devices, student one-to-one devices are funded by leasing the needed money for procurement of all devices over the lifespan of the device. The utilization of leasing allows these programs to proceed without creating turbulent technology budgets, essentially flat-lining the technology budget to be predicable. Technology programs are not implemented without an existing rollout plan and educational rationale and evaluation plan developed. With regards to software and other items essential for the digital educational environment, the technology budget is zero based and all expenditures for digital resources are evaluated annually to ensure they are still needed and effectively being utilized new items replace older obsolete technologies.

Overarching Goals and Objectives of the Plan

Hillsborough Township Public Schools are responsible for the education of all children in our district. To this end, the technology mission of the HTPS is: (a) all students and staff will have the knowledge, and technology skills necessary to achieve the district's goals and New Jersey Core Curriculum Content Standards, and (b) to use appropriate technology based resources to facilitate the performance of all scholastic and administrative tasks at the building, county, state, and global levels.

In order to accomplish the technology mission of the Hillsborough Township Public Schools, the following goals have been established to insure our students' success as they live, learn, and work in an ever-changing information age.

Goal 1. District teachers will utilize the power of technology to enhance and transform the learning environment while optimizing the opportunity for a value-added approach to globalization of the curriculum, asynchronous learning, and the creation, collaboration and publication of digital content, while also appropriately supporting state-mandated curriculum requirements.

Goal 2. The district will promote and enforce policies to build 21st Century Global Citizenship.

Goal 3. The district will foster and support staff development opportunities to ensure a technology literate staff.

Goal 4. The district will continue to support a well-managed infrastructure, software resources and tools, one-to-one technology programs, efficient repair procedures, and high speed connectivity to the internet in all instructional and administrative areas within the district.

Three-Year Implementation and Strategies Table

Built within each goal listed in the following section is a documentation/evaluation component associated with each benchmark activity. Each person(s) listed as responsible for the implementation of the said goal(s) will ensure that the benchmarks have been achieved.

The Director of Technology evaluates the larger district plan, including the implementation of network services, with feedback from the technology staff, and in-house staff. Through regularly scheduled meetings with the Superintendent and Assistant Superintendents and updates to the district curriculum leaders, progress is examined, modified, and new methods of implementation evaluated. If changes are needed, because of the existence of new technologies, state/federal or funding requirements, then this plan will be amended with these as needed.

With technology's accelerated rate of change, the district must be flexible and able to adopt and modify

goals appropriately. The implementation and strategies outlined below will be constantly monitored to ensure they are meeting the needs of the district and the community it serves. New technologies will be continuously evaluated and recommendations/modifications will be made on an ongoing basis.

Goal 1. District teachers will utilize the power of technology to enhance and transform the learning environment while optimizing the opportunity for a value-added approach to globalization of the curriculum, asynchronous learning, and the creation, collaboration and publication of digital content, as well as appropriately supporting state-mandated curriculum requirements.

1.1 Continue to develop, promote, and showcase the tools and strategies to globalize the curriculum.
1.2 Continue to develop, promote, and showcase the tools and strategies to create opportunities for asynchronous learning.
1.3 Continue to develop, promote, and showcase the tools and strategies for students to create, collaborate, and publish digital content.
1.4 Continue to develop, promote, and support productivity tools that are necessary for staff and students to utilize on a normal, daily basis.
1.5 Explore and develop curricular and grade level goals with introduction and/or mastery of specific technology skills.
1.6 Research and explore innovative physical classroom and learning space designs that support 21st century learning.

Goal 1 - Implementation and Strategies Table

Goal	Benchmark Activity	Person(s) Responsible	Grade Level Focus	16-17	17-18	18-19
1.1.1	Cultivate cultural understanding and build global connections that enrich the learning experience for teachers and students, primarily through virtual field trips, classroom connections and expert interactions.	Curriculum Supervisors, Director of Technology, Technology Integration Team, Assistant Superintendent for Curriculum, Computer Support Teachers K-12	K-4, 5-6, 7-8, 9-12	X	X	X
1.2.1	Extend learning activities and opportunities for students to interact with content and peers outside of the classroom, primarily through content libraries, teacher-curated resources, and participatory spaces.	Curriculum Supervisors, Director of Technology, Technology Integration Team, Assistant Superintendent for Curriculum, Computer Support Teachers K-12	K-4, 5-6, 7-8, 9-12	X	X	X
1.3.1	Promote and support students becoming active producers of digital content for authentic audiences, both individually and collaboratively, primarily in the areas of diagrams and visualizations, graphic design products, multimedia, and dynamic, interactive presentations.	Curriculum Supervisors, Director of Technology, Technology Integration Team, Assistant Superintendent for Curriculum, Computer Support Teachers K-12	K-4, 5-6, 7-8, 9-12	X	X	X

1.4.1	Promote, train and support teachers with the development of skills with basic productivity tools and district-provided resources, primarily in the areas of Google Apps, classroom management and organization, data collection and instant feedback, and professional learning networks.	Curriculum Supervisors, Director of Technology, Technology Integration Team, Assistant Superintendent for Curriculum, Computer Support Teachers K-12	K-4, 5-6, 7-8, 9-12	X	X	X
1.5.1	Establish grade level goals on mastery of keyboarding, data entry, and basic technology skills into the Grades 3-4 curriculum.	Curriculum Supervisors, Director of Technology, Assistant Superintendent for Curriculum, Computer Support Teachers K-4	3-4	X	X	X
1.5.2	Increase technology organizational skills and document and resource management	Curriculum Supervisors, Director of Technology, Assistant Superintendent for Curriculum, Computer Support Teachers K-12, Technology Integration Team	K-4, 5-6, 7-8, 9-12	X	X	X
1.5.3	Explore the feasibility to add coding into the Grades 1-8 curriculum.	Curriculum Supervisors, Director of Technology, Assistant Superintendent for Curriculum, Principals K-8	K-4, 5-6,7-8		X	X
1.5.4	Explore enhancing / expanding the High School programming elective program to include coding related venues (networking, web based coding).	Curriculum Supervisors, Director of Technology, Assistant Superintendent for Curriculum, High School Principal, Director of Guidance	9-12		X	X
1.5.5	Work closely with special education staff to find alternate technology services/devices that address the special needs of specific learners.	District of Special Services, Director of Technology, Curriculum Supervisors, Assistant Superintendent for Curriculum, Principals	K-4, 5-6, 7-8, 9-12	X	X	X
1.6.1	Research and explore the redesign of physical space in classrooms, libraries, and other learning spaces to be more conducive to 21st century learners.	District of Special Services, Director of Technology, Curriculum Supervisors, Assistant Superintendent for Curriculum, Principals	K-4, 5-6, 7-8, 9-12	X	X	X

Goal 2. The district will promote and enforce policies to build 21st Century Global Citizenship.

2.1 Foster educational and informative lessons and programs that promote Digital Citizenship.
2.2 Continue to evaluate and implement new communications and educational programs to foster parental and community Digital Citizenship programs.
2.3 Promote increases in knowledge in the areas of cyber security and protecting oneself online.

Goal 2 - Implementation and Strategies Table

Goal	Benchmark Activity	Person(s) Responsible	Grade Level Focus	16-17	17-18	18-19
2.1.1	Train staff on digital citizenship, digital responsibility, cyber bullying and what is digitally appropriate with students.	Director of Technology, Technology Integration Team, Turnkey Trainers, Computer Support Teachers	K-4, 5-6, 7-8, 9-12	X	X	X
2.1.2	Continue to incorporate the New Jersey Student Learning Standards 8.1 strand D on Digital Citizenship into all content curriculum areas.	Curriculum Supervisors, Assistant Superintendent for Curriculum	K-4, 5-6, 7-8, 9-12	X	X	X
2.1.3	Implement school level committees to coordinate efforts to develop school based activities focused on digital citizenship.	Director of Guidance, Director of Special Services, Curriculum Supervisors, Principals	K-4, 5-6, 7-8, 9-12	X	X	X
2.2.2	Offer parent and community awareness programs on topics related to cyber security, cyber bullying and digital citizenship	Director of Technology, Technology Integration Team, Computer Support Teachers	K-4, 5-6, 7-8, 9-12	X	X	X
2.3.1	Provide staff training and learning in the areas of cyber security and protecting oneself online.	Director of Technology, Technology Integration Team, Computer Support Teachers	K-4, 5-6, 7-8, 9-12	X	X	X
2.3.2	Provide age appropriate lessons on cyber security and protecting oneself online in grades K-8.	Director of Guidance, Director of Special Services, Curriculum Supervisors, Director of Technology, Computer Support Teachers	K-4, 5-6, 7-8	X	X	X
2.3.3	Provide age appropriate resources and tools on cyber security and protecting oneself online in grades 9-12	Director of Guidance, Director of Special Services, Curriculum Supervisors, Director of Technology, Computer Support Teachers	9-12	X	X	X

Goal 3. The district will foster and support staff development opportunities to ensure a technology literate staff.

3.1 Continue to offer a wide variety of staff development and technology training opportunities.
3.2 Offer mandatory essential training of staff with the implementation of new technology initiatives.
3.3 Continue to provide resources to assist teachers with the successful implementation of technology integration.

Goal 3 - Implementation and Strategies Table

Goal	Benchmark Activity	Person(s) Responsible	Grade Level Focus	16-17	17-18	18-19
3.1.1	Sustain, iterate and evaluate the future need of the existing tech coach and turnkey positions	Technology Integration Team, Director of Technology, Assistant Superintendent for Curriculum	K-4, 5-6, 7-8, 9-12	X	X	X
3.1.2	Expand the interactive online knowledge base to provide a self-help support resource to all staff.	Technology Integration Team, Computer Resource Teachers, Teacher Trainers, Director of Technology	K-4, 5-6, 7-8, 9-12	X	X	X
3.1.3 3.2.1	Run summer technology training opportunities in topics covering the latest district technology offerings.	Technology Integration Team, Director of Technology, Assistant Superintendent for Curriculum	K-4, 5-6, 7-8, 9-12	X	X	X
3.2.2	Provide training for new district staff in the use of the district software.	Technology Integration Team, Director of Technology, Assistant Superintendent for Curriculum, Director of Human Resources	K-4, 5-6, 7-8, 9-12	X	X	X
3.3.1	Continue to evaluate the use of technology and include a technology component where appropriate in all new and revised curricula and in the selection of curricular materials.	Assistant Superintendent for Curriculum, District Supervisors, Director of Technology	K-4, 5-6, 7-8, 9-12	X	X	X
3.3.2	Survey staff to determine training needs with regard to technology.	Technology Integration Team, Director of Technology	K-4, 5-6, 7-8, 9-12	X	X	X
3.3.3	Implement the technology integration guide/rubric along with targeted, interactive digital resources to establish a framework for successful technology integration.	Technology Integration Team, Director of Technology, Assistant Superintendent for Curriculum, Director of Human Resources	K-4, 5-6, 7-8, 9-12	X	X	X
3.3.4	Evaluate the effective use of technology in classroom observations and annual evaluations	All administrative staff	K-4, 5-6, 7-8, 9-12		X	X

	to document and promote growth in the area of technology integration.					
3.3.5	Implement a common assessment tracking system to streamline the collection, analysis and distribution of common assessment data for effective teacher evaluation and self-improvement.	Director of Technology, Curriculum Supervisors, Assistant Superintendent for Curriculum, Director of Human Resources, Database Manager	K-4, 5-6, 7-8, 9-12	X	X	X
3.3.6	Support the collection of feedback on primary instructional methods and tools being used (curriculum driven).	Director of Technology, District Supervisors, Assistant Superintendent for Curriculum, Technology Integration Team, Computer Resource Teachers	K-4, 5-6, 7-8, 9-12	X	X	X

Goal 4. The district will continue to support a well-managed infrastructure, software resources and tools, one-to-one technology programs, efficient repair procedures, and high speed connectivity to the Internet in all instructional and administrative areas within the district.

4.1 Continually analyze and iterate current one-to-one programs and staff equipment in all areas to ensure they adequately support student learning and district administrative functions.
4.2 Explore digital administrative resources to support student learning and administrative functions throughout the entire district.
4.3 Maintain a secure technology infrastructure, wireless density and needed bandwidth to ensure optimal speed needed to support all learning applications including VoIP and streaming media.

Goal 4 - Implementation and Strategies Table

Goal	Benchmark Activity	Person(s) Responsible	Grade Level Focus	16-17	17-18	18-19
4.1.1	Evaluate our inventory against PARCC technology requirements and purchase necessary resources to meet PARCC testing requirements.	Director of Technology, Business Administrator, Superintendent	K-4, 5-6, 7-8, 9-12	X	X	X
4.1.2	Transition from desktop based applications to more web based resources for greater staff and student accessibility to district resources 24/7.	Director of Technology, Assistant Superintendent for Curriculum, District Supervisors, Business Administrator, Superintendent	K-4, 5-6, 7-8, 9-12	X	X	X
4.1.3	Maintain existing multimedia projection and sound field infrastructure in all K-12 classrooms	Director of Technology, Business Administrator, Superintendent	K-4, 5-6, 7-8, 9-12		X	X

	and explore the end-of-life timeline and refresh cycle of equipment.					
4.1.4	Implement a four year one-to-one program in grade 3-4 utilizing Chromebook tablets.	Director of Technology, Technology Integration Team, Computer Resource Teachers, District Supervisors, Assistant Superintendent for Curriculum	3-4	X		
4.1.5	Evaluate the district's one-to-one program in grade 3-12 and determine best curricula software needs.	Director of Technology, Technology Integration Team, Computer Resource Teachers, District Supervisors, Assistant Superintendent for Curriculum, Administrative Staff (all 3-12 schools)	3-4, 5-6, 7-8, 9-12	X	X	X
4.1.6	Evaluate the district's one-to-one program in grade 5-12 and determine the best tool to refresh devices in 2018.	Director of Technology, Technology Integration Team, Computer Resource Teachers, District Supervisors, Assistant Superintendent for Curriculum	5-6, 7-8, 9-12			X
4.1.7	Explore and execute appropriate hardware refresh in grades K-2 to replace end-of-life Nexus 7 program.	Director of Technology, Technology Integration Team, Computer Resource Teachers, District Supervisors, Assistant Superintendent for Curriculum	K-2	X	X	
4.2.1	Monitor existing intercom equipment and expand the Cisco voice communications system to integrate with the school's intercoms as obsolete systems fail.	Director of Technology, Director of Buildings and Grounds	5-6, 7-8, 9-12	X	X	X
4.2.2	Implement an online form management system with the Genesis Human Resources program that is accessible from anywhere in and out of district.	Director of Technology, Assistant Superintendent for Curriculum, Director of Human Resources, Business Administrator	K-4, 5-6, 7-8, 9-12	X	X	X
4.3.1	Add surveillance cameras throughout the district where additional security is needed.	Director of Technology, Information Technology Staff, All Administrative Staff	K-4, 5-6, 7-8, 9-12	X	X	X
4.3.2	Monitor the use of the voice, video, and data network to ensure adequate bandwidth is available to facilitate collegial communication and collaboration.	Director of Technology, Information Technology Staff	K-4, 5-6, 7-8, 9-12	X	X	X

4.3.3	Install load-balanced concentrated Internet connections to maintain high level of service, minimize outage time and ensure adequate bandwidth availability.	Director of Technology, Information Technology Staff	K-4, 5-6, 7-8, 9-12	X		

Appendices

Appendix A- NJTRAx Technology Readiness System

District Report
Hillsborough Township Public School District

(Ratings based on Recommended PARCC specifications.)

This report provides a snapshot of the district's technology readiness for online assessment based on the NJTRAx data provided by the school's representative. The readiness ratings in this report are only as accurate as the data upon which they are based and are not a guaranteed indicator of success. This report is intended to be informational and to be used as one element of the data reviewed by Districts and Local Educational Agencies (LEAs)/Testing Sites as they prepare for technology readiness.

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.

The report is based upon assumptions that influenced the calculations and results.

The assumptions are as follows:

- The administration window for each of the two PARCC summative assessments is twenty (20) days. All assessments and make-ups must be administered within the twenty day window. Although some LEAs/Testing Sites may be able to schedule fewer days, the report is based on the availability of all twenty days.
- As per PARCC documentation, the report uses two assessment sessions per day in its calculations.
- This report uses a 10% overage included in the amount of devices that are needed in order to account for possible breakage and repair issues that could occur during the assessment administration.
- This report uses PARCC minimum bandwidth specifications for online testing. Those specifications are: 50 Kbps per student with no content caching and 5 Kbps when content caching is used. Eighty percent (80%) of the available Internet bandwidth is used in the network readiness calculation since 80% represents the percentage of Internet bandwidth typically available for high quality data transport.
- A "**No Rating**" will display in the results when one of two situations arise:
    - The rating could not be determined due to **missing data** from the school's NJTRAx data file.

o The **data are out of range** – for example, an Internet utilization entry with the entry at 0% (which does not take into account normal, everyday usage) or 100% (which indicates there would be no bandwidth available for testing above normal usage).

It should be noted that the reporting feature of the PARCC TRT does not include all of these assumptions. Due to this, the results of this report may differ from the reports found in the PARCC TRT.

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District Report: Executive Summary

Technology Readiness Rating

To be considered OVERALL TECHNOLOGY READY FOR ONLINE TESTING the District must meet each of the following criterion:

A) The District must be rated Network Ready (see below for definition)

B) All schools in the district that are testing sites must be rated as Technology Ready for Online Testing.

Network Readiness Rating

If the District is the Internet Service Provider for its schools then, to be deemed Network Ready, the district must have adequate bandwidth to accommodate normal traffic plus all simultaneous test takers from all schools across the duration of the testing window. In addition, all its schools must be Network Ready.

If the District is not the ISP, then to be considered Network Ready, all its schools must be Network Ready.

Device Readiness Rating

To be device ready, a district must have all of its schools device ready.

Testing Specifications

Number of schools: 9

Number of students to be tested: 5110

Number of test sittings per Grade 3-5 student: 8

Number of test sittings per Grade 6-11 student: 7

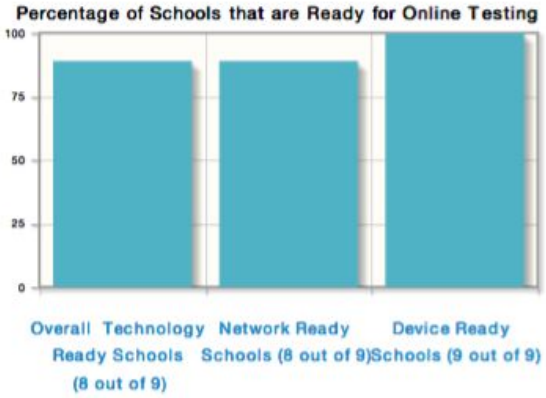
Grades Tested: 3 , 4 , 5 , 6 , 7 , 8 , 9 , 10 , 11

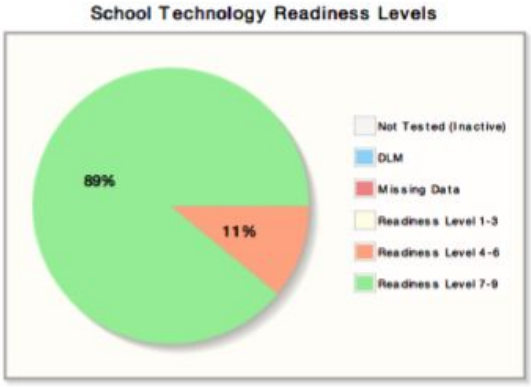
Assessment Window: 30 days

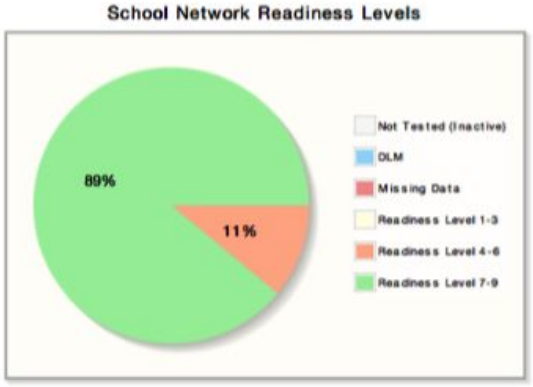
Assessment Sessions per Day: 2

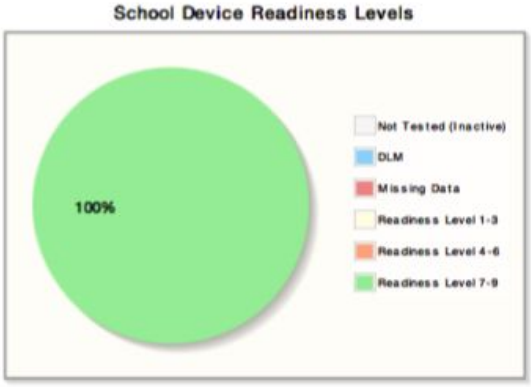
Grade	Number of Students
3	553
4	554
5	562
6	561
7	603
8	562
9	583
10	543
11	589

Summary Status Report









District Network Readiness

Hillsborough Township Public School District

(Ratings based on Recommended PARCC specifications.)

A District is Network Ready for Online Assessment if it meets one of two criteria:

- If the district is the Internet Service Provider (ISP) for its schools, then all its schools must be network ready and there must be adequate district Internet bandwidth available to accommodate all simultaneous users from all schools across the district at 50 Kbps per test taker for those not using caching servers, and at 5 Kbps for those using caching servers.
- If the district is not the ISP then to be considered network ready all the schools must be rated as Network Ready for Online Assessment.

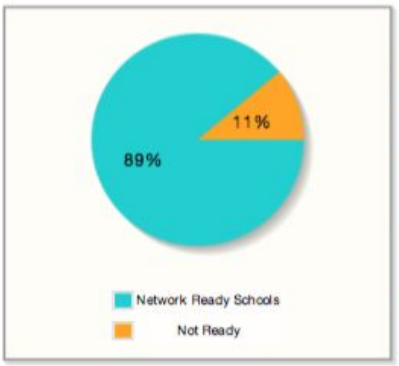
New Jersey/PARCC Guidelines for Overall District Technology Readiness for Online Assessment

To be considered OVERALL TECHNOLOGY READY FOR ONLINE TESTING the district must meet each of the following criterion:

- All schools must be rated as Technology Ready for Online Assessment.
- The District must be rated Network Ready for Assessment: If the district is the Internet Service Provider (ISP) for its schools, then there must be adequate district Internet bandwidth available to accommodate normal Internet traffic plus the extra load required to meet the online assessment demands of the maximum number of simultaneous test takers for all schools across the district, for the duration of the testing window. If the district is not the ISP, then to be considered network ready, the district must have all the schools rated as Network Ready for Online Assessment.

This District's Network Status

Percentage of Network Ready Schools:



A Closer Look at the Schools

Category of Network Readiness for Online Assessment	Count of Schools	Schools
NOT TESTED	0	
DLM	0	
MISSING DATA	0	
NOT READY Low Level Rating:1-3	0	
NOT READY Mid-Level Rating:4-6	1	• Auten Road Intermediate School
READY Rating:7-9	8	• Hillsborough High School • Amsterdam Elementary School • Hillsborough Township Middle School • Hillsborough Township Elementary School • Sunnymead Elementary School • Triangle Elementary School • Woodfern Elementary School • Woods Road Elementary School

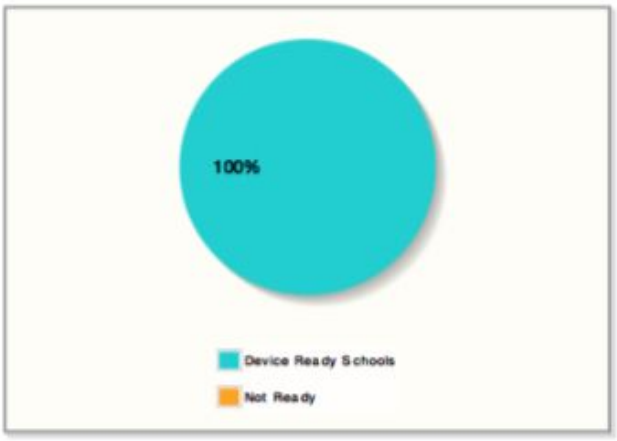
District Device Readiness

Hillsborough Township Public School District

(Ratings based on Recommended PARCC specifications.)

The chart to the right provides a snapshot of the Device Readiness for Testing for the schools in this District.

The table below provides the ratings for individual schools in the district.



Category of Device Readiness for Online Assessment	Count of Schools	Schools
NOT TESTED	0	
DLM	0	
MISSING DATA	0	
NOT READY Low Level Rating:1-3	0	
NOT READY Mid-Level Rating:4-6	0	
READY Rating:7-9	9	• Hillsborough High School • Amsterdam Elementary School • Auten Road Intermediate School • Hillsborough Township Middle School • Hillsborough Township Elementary School • Sunnymead Elementary School • Triangle Elementary School • Woodfern Elementary School • Woods Road Elementary School

Recommendations

For specific recommendations on device readiness, please review the reports from each school, or use the Sandbox to investigate how the District's readiness ratings change when devices are upgraded or added.

Appendix B - NJsmart Upload Report

SID Management QSAC Data

Filter By: equals Add Filter

Extract Format: Comma-separated Excel Export Data

Snapshot	Date of First Full File for the School Year	Total Active Records	Sync Record Count	Error Record Count*	Unresolved Record Count	Conflict-Owning Record Count	School Year
Oct 15, 2015	Aug 06, 2015	7318	0	1	0	1	2015-2016
Jun 30, 2015	n/a	7355	0	0	0	0	2014-2015
Oct 15, 2014	Aug 13, 2014	7321	0	0	0	0	2014-2015
Jun 30, 2014	n/a	7325	0	0	0	0	2013-2014
Oct 15, 2013	Aug 15, 2013	7264	0	0	0	0	2013-2014
Jun 28, 2013	n/a	7299	0	0	0	0	2012-2013
Oct 15, 2012	Aug 14, 2012	7294	0	1	0	0	2012-2013
Jun 30, 2012	n/a	7477	0	0	0	0	2011-2012
Oct 15, 2011	Aug 31, 2011	7442	1	0	0	0	2011-2012
Jun 30, 2011	n/a	7471	0	0	0	0	2010-2011
Oct 15, 2010	Aug 30, 2010	7467	0	1	0	0	2010-2011

Appendix C - Turnkey Trainer Survey Results

Course Title	Overall satisfaction	Clear Content	Length and Pace	Useful and Relevant
Design Effective Diagrams and Flow Charts	4.00	4.00	4.00	3.93
There's a Map for That	4.00	4.00	4.00	3.56
Working with Spreadsheets - Part 2	4.00	4.00	4.00	4.00
Conducting Research for Project-Based Learning	3.97	3.97	3.97	3.75
Google Forms Basics	3.97	3.95	3.78	3.81
Engage and Encourage Students with ClassDojo	3.96	3.89	3.94	3.76
Get Started With Enhancing Photos	3.95	4.00	3.92	3.68
Genesis Refresher (K-4)	3.95	3.90	3.72	3.98
Design Engaging Infographics and Posters	3.94	3.94	3.88	3.76
Digital Learning Resources for All Ages	3.94	3.91	3.85	3.70
Create High Quality Multimedia Projects	3.93	3.84	3.82	3.73
Digital Workflow with Hapara Teacher Dashboard	3.92	3.92	3.89	3.77
Instant Feedback and Assessment	3.92	3.93	3.73	3.84
Get the Most Out Of BrainPOP	3.92	3.93	3.87	3.88
Game-Based Quizzes and Assessments	3.92	3.91	3.88	3.81
Create Screencasts and On-Screen Tutorials	3.91	3.95	3.90	3.71
Personalize Your Social Learning Network	3.91	3.92	3.83	3.72
Google Apps Basics	3.91	3.90	3.72	3.87
Google Forms for Surveys and Quizzes	3.91	3.92	3.79	3.76
Virtual Field Trips with PegMan!	3.91	3.94	3.94	3.59
Design Beautiful Newsletters and Flyers	3.90	3.88	3.79	3.70
Explore Digital Media with Discovery Education	3.90	3.87	3.79	3.74
Your Very Own Personal Assistant	3.89	3.91	3.91	3.70
Google Docs in the Classroom	3.89	3.94	3.90	3.78
Group Participation with VoiceThread	3.88	3.81	3.71	3.56
Grand Total	3.86	3.86	3.77	3.71
Create, Engage, and Assess with Nearpod	3.86	3.84	3.69	3.72
Working with Spreadsheets - Introduction	3.86	3.87	3.82	3.81
Customize Learning by Mixing the Web	3.86	3.85	3.80	3.67
Build Dynamic Nearpods (Advanced Features)	3.85	3.89	3.78	3.84
Manage and Share Links and Bookmarks	3.84	3.86	3.87	3.76
Online Flash Cards and Study Tools	3.84	3.83	3.72	3.74
Get to Know Google Classroom	3.84	3.84	3.81	3.60
Parent Outreach and Classroom Communication	3.83	3.93	3.90	3.58
Working with Spreadsheets - Part 1	3.83	4.00	4.00	3.67
Learn to Edit Photos and Graphics Online	3.82	3.78	3.58	3.35
Web Sites for Beginners	3.81	3.77	3.62	3.65
Build Global Communities	3.81	3.77	3.88	3.65
Genesis Refresher (5-12)	3.80	3.85	3.82	3.67
Next Generation Assessments	3.79	3.73	3.72	3.69
Create Comics and Animated Movies	3.79	3.87	3.71	3.65
Create Whiteboard Tutorials	3.78	3.78	3.76	3.44
Digital Storytelling	3.78	3.78	3.76	3.44
Dynamic Web-Based Presentations	3.77	3.82	3.61	3.74
Blogging in the Classroom	3.74	3.55	3.12	3.56
Connect your Classroom	3.71	3.81	3.75	3.49
Enhance and Customize Your Google Site	3.65	3.71	3.56	3.71
Enrich and Assess with Interactive Videos	3.65	3.65	3.51	3.66

Appendix D - Technology Integration Guide / Rubric

HTPS Technology Integration Guide / Rubric

Globalizing the Curriculum

This technology goal focuses on cultivating cultural understanding and building global connections that enrich the learning experience for teachers and students. Technology continues to break down barriers and students need to be prepared for an interconnected world. Developing awareness, empathy, and communication skills with people from different cultures is a critical skill. There are three main areas that we focus on when exploring the different ways to meet this technology goal:

- **1A. Virtual Field Trips**: Explore geography and culture through interactive mapping technologies and engaging with virtual worlds, objects, and artifacts.
- **1B. Classroom Connections**: Connect directly with students from outside of Hillsborough through videoconferencing and/or the development of collaborative projects.
- **1C. Expert Interactions**: Connect directly with experts from outside of Hillsborough through videoconferencing (or other collaborative technologies) to enable students to ask questions and interact live with the experts.

	ADOPT	ADAPT	INFUSE	TRANSFORM	
STUDENTS	Students do not gain cultural understanding or global awareness, and do not connect with others outside of the district.	Students occasionally gain cultural awareness through digital media, but rarely or never connect with others outside of the district.	Students often gain cultural awareness through digital media and occasionally through exploration of virtual worlds and artifacts. Students occasionally connect directly to learners in other cultures or subject matter experts.	Students often gain cultural understanding and global awareness through digital media and exploration of virtual worlds and artifacts. Students occasionally connect to learners in other cultures and experts on various topics.	Students routinely gain cultural awareness and global awareness through digital media and construct knowledge of places, cultures and issues by exploration of virtual worlds/artifacts. Students also routinely collaborate with learners of different cultures and connect with experts on various topics.
TEACHERS	The teacher makes little or no effort to globalize the curriculum.	The teacher attempts to seek virtual connections, but is unable to establish a direct connection with others in locations outside of the district.	The teacher often seeks and periodically makes connections with colleagues and experts outside of Hillsborough for special projects/activities.	The teacher develops and models cultural understanding and global awareness by actively seeking and often making connections with colleagues and experts outside of Hillsborough for special projects/activities.	The teacher participates in global learning communities and explores creative applications of technology while modeling cultural understanding and global awareness. The teacher actively and routinely seeks out partnerships with colleagues and experts outside of Hillsborough.

HTPS Technology Integration Guide / Rubric

Asynchronous Learning

This technology goal focuses on extending learning activities and opportunities outside of the classroom. Technology has provided access to a wealth of information and resources along with access to peers and colleagues, making anytime, anywhere learning a real opportunity for today's learners. There are three main areas that we focus on when exploring the different ways to meet this technology goal:

- **2A. Content Libraries**: Engage students by providing routine, ongoing access to relevant course content through online resources and repositories.
- **2B. Curated Resources**: Customize student learning activities through creating, curating, blending and sharing of online content from multiple sources.
- **2C. Participatory Spaces**: Facilitate classroom communities by providing opportunities for students to communicate ideas, ask questions, engage in discussions, build knowledge, and reflect upon their learning.

	ADOPT	ADAPT	INFUSE	TRANSFORM	
STUDENTS	Students are not given opportunities to learn asynchronously.	Students occasionally access course content and information through online resources.	Students often access course content and information through online resources, and occasionally participate with peers in a digital space to share information, and ask and answer questions.	Students routinely access course content, information, and learning activities through online resources. Students also often actively participate with peers and the teacher in a digital space to share information, ask and answer questions, and build knowledge.	Students routinely access personalized course content, information, and learning activities through online resources. Students also routinely participate with peers and the teacher in a digital space to share information, initiate discussions, ask and answer questions, build knowledge, and reflect upon their own learning.
TEACHERS	The teacher makes little or no effort to provide opportunities for asynchronous learning.	The teacher occasionally encourages students to access online resources to supplement instruction and occasionally communicates relevant information, ideas, and course content using digital tools and multimedia.	The teacher often encourages students to access online resources to supplement instruction and present new content, and often communicates information, ideas, content effectively to students using digital tools and multimedia.	The teacher routinely encourages students to access online resources and learning activities in a virtual space, often allowing for the teacher and students to communicate information, ideas, and content using digital tools and multimedia.	The teacher expects students to access online resources and learning activities in a virtual space, routinely allowing for the teacher and students to communicate information, ideas, and content, and enabling the students to monitor their own learning.

HTPS Technology Integration Guide / Rubric

Creation, Collaboration, Publication of Digital Content

This technology goal focuses on students becoming active producers of digital content, rather than passive consumers. Technology has provided the opportunity for students to express themselves with a wide variety of digital tools and media formats, to collaborate and interact with peers throughout the entire creative process, and to reach a wide audience. There are four main digital content areas that we focus on when exploring the different ways to meet this technology goal:

- **3A. Diagrams**: Construct visual representations of information such as flowcharts, graphic organizers, schematics, and mind maps.
- **3B. Graphic Design**: Design digital products such as graphics, web sites, brochures, or posters through a combination of text, space, illustration, image, and color.
- **3C. Multimedia**: Create original multimedia such as videos, podcasts, and animations.
- **3D. Dynamic Presentations**: Build interactive, media and content-rich presentations to inform, persuade, and engage your audience.

	ADOPT	ADAPT	INFUSE	TRANSFORM	
STUDENTS	Students rarely use digital tools in the classroom to create original works, and rarely collaborate with peers.	Students occasionally or often use digital tools to create original works, and occasionally collaborate with peers for the purposes of peer review and/or group work.	Students often use digital tools to create original works, and often collaborate with peers for the purposes of peer review and/or group work. Students occasionally publish their work to their classmates, others throughout the school, or online to be viewed by a limited audience.	Students routinely use digital tools and apply existing knowledge generate new ideas, products, processes, and original works. Students often collaborate with peers and often publish their work online to be viewed by a wide, authentic audience.	Students routinely use digital tools and apply existing knowledge to generate new ideas, products, processes, and original works. Students routinely collaborate with peers both inside and outside of the classroom, and often publish their work online to be viewed by a wide, authentic audience that provides additional feedback and opportunities to revise the work and reflect upon the learning.
TEACHERS	The teacher rarely allows students to use digital tools to create original work or collaborate with peers. The teacher rarely provides any audience for student work.	The teacher occasionally allows students to use digital tools to create original works and to collaborate with peers. The teacher rarely provides an authentic audience for student work outside of the classroom.	The teacher occasionally promotes creative thinking and expression with digital tools, and occasionally facilitates collaboration among students. The teacher occasionally provides an authentic audience within the school community for student work.	The teacher often promotes and sometimes models creative thinking and expression with digital tools, and often facilitates collaborative knowledge construction among students and colleagues. The teacher also often provides an authentic audience within the school community for student work, occasionally reaching a wider audience outside of the district.	The teacher routinely promotes and models creative thinking/expression with digital tools and collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual learning environments. The teacher also often provides a wide and authentic audience for student work (with appropriate efforts made with regards to safety and privacy).

HTPS Technology Integration Guide / Rubric

Productivity Tools

Developing strong technology skills with productivity tools and district-provided resources is a critical, major part of the skill set that educators must possess. We have offered (and will continue to offer) significant technology training and professional development targeting this area. The main areas we focus on include:

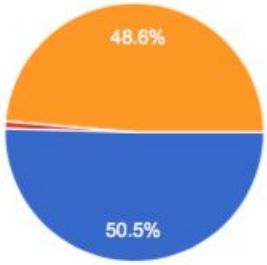
- **4A. Google Apps**: Master the core productivity suite (Gmail, Calendar, Google Drive) that all teachers must be familiar with in order to remain productive, connected, and organized.
- **4B. Classroom Organization/Management**: Organize and share assignments, distribute digital resources, collect student work, maintain accurate student records, and monitor student activity and behavior.
- **4C. Data Collection and Instant Feedback**: Collect student data and analyze results to measure student understanding, improve learning, and increase the effectiveness of your own teaching.
- **4D. Professional Learning Networks**: Connect to other educators and communities to explore creative applications of technology, evaluate and reflect on current research and professional practice to improve student learning.

	ADOPT	ADAPT	INFUSE	TRANSFORM	
TEACHERS	The teacher makes little or no effort to learn about the digital resources provided by the district, rarely using productivity tools (such as Google Apps), classroom organization and management tools (such as Hapara Teacher Dashboard), or online subscriptions and textbooks. The teacher uses Genesis to meet the minimum requirements for attendance/grading. The teacher makes little or no effort to utilize additional online resources.	The teacher demonstrates little knowledge of the digital resources provided by the district, including productivity tools (such as Google Apps), classroom organization and management tools (such as Hapara Teacher Dashboard), Genesis, and online subscriptions and textbooks. The teacher occasionally utilizes additional online resources to stay current on the latest research in the field. The teacher rarely utilizes additional online resources to promote professional growth.	The teacher demonstrates some knowledge of the digital resources provided by the district, including productivity tools (such as Google Apps), classroom organization and management tools (such as Hapara Teacher Dashboard), Genesis, and online subscriptions and textbooks. The teacher occasionally utilizes additional online resources to stay current on the latest research in the field.	The teacher demonstrates a high level of skill and knowledge of the digital resources provided by the district, including productivity tools (such as Google Apps), classroom organization and management tools (such as Hapara Teacher Dashboard), Genesis, and online subscriptions and textbooks. The teacher often facilitates the productive use of technology by students and occasionally utilizes additional online resources to stay current on the latest research in the field.	The teacher seamlessly uses the digital resources provided by the district, including productivity tools (such as Google Apps), classroom organization and management tools (such as Hapara Teacher Dashboard), Genesis, and integrates the use of online subscriptions and textbooks. The teacher has also established clear rules and expectations for productive technology use in the classroom, and utilizes online resources, including professional social networking sites, to stay current on the latest research and best practices in the field.

Appendix E - Teacher Technology Device Features Survey

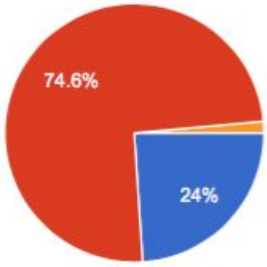
556 Respondents

Type of Device



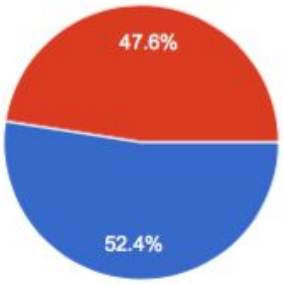
The device should be a traditional laptop	**280**	50.5%
The device should be a tablet	**5**	0.9%
The device should be a convertible device (laptop and tablet)	**270**	48.6%

Screen Size



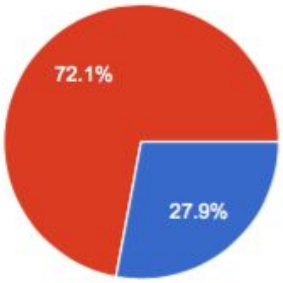
The device screen size should be larger than the current staff laptop	**133**	24%
The device screen size should be the same size as the current staff laptop	**414**	74.6%
The device screen size should be smaller than the current staff laptop	**8**	1.4%

Touch Screen



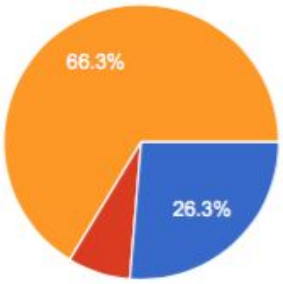
A touch screen is important to me	**291**	52.4%
A touch screen is not important to me	**264**	47.6%

Pen / Stylus



I need a pen / stylus to draw or write on the screen	**155**	27.9%
I do not need a pen / stylus	**400**	72.1%

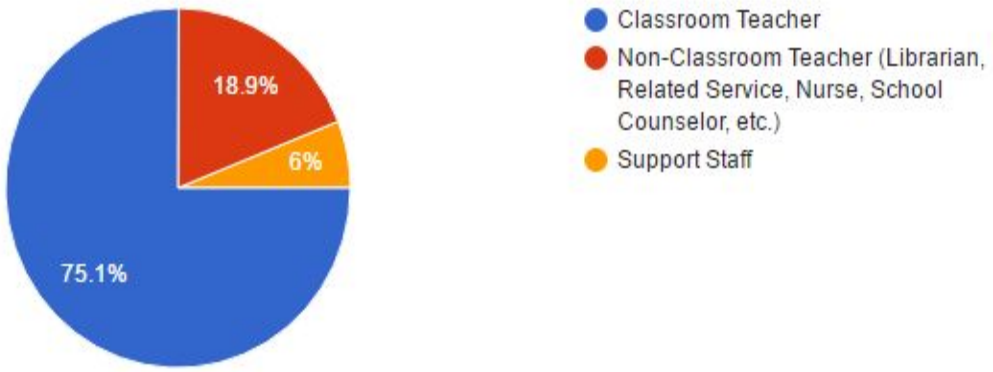
Projecting



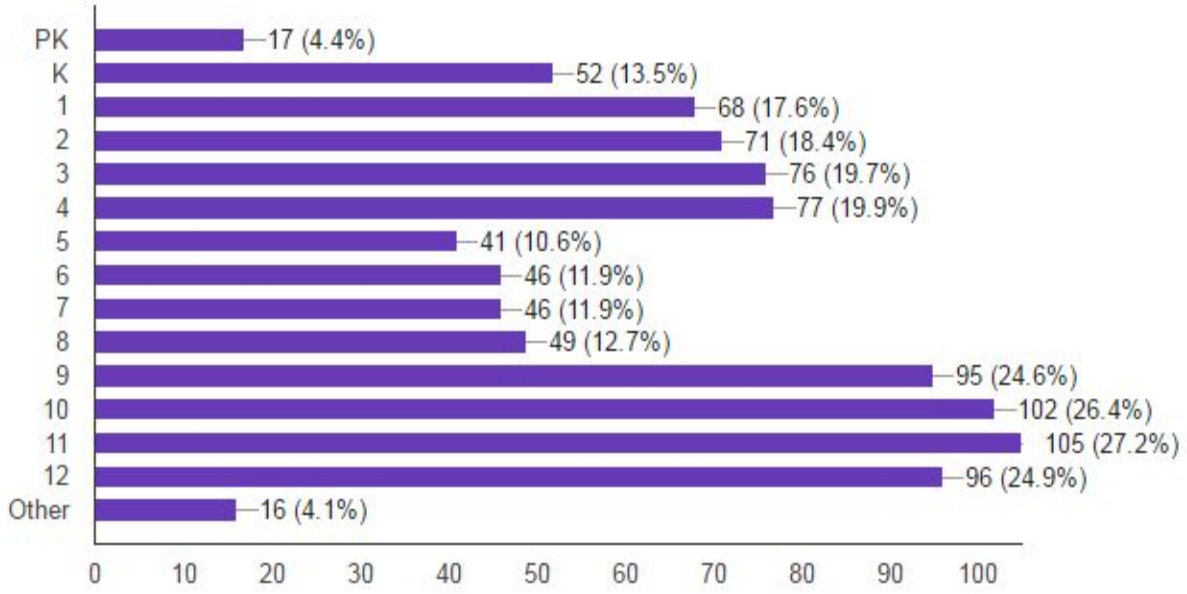
I only need to be able to project from the docking station	**146**	26.3%
I only need to be able to project wirelessly	**41**	7.4%
I need to project from the docking station and wirelessly	**368**	66.3%

Appendix F - End of Year (May 2015) Staff Technology Survey

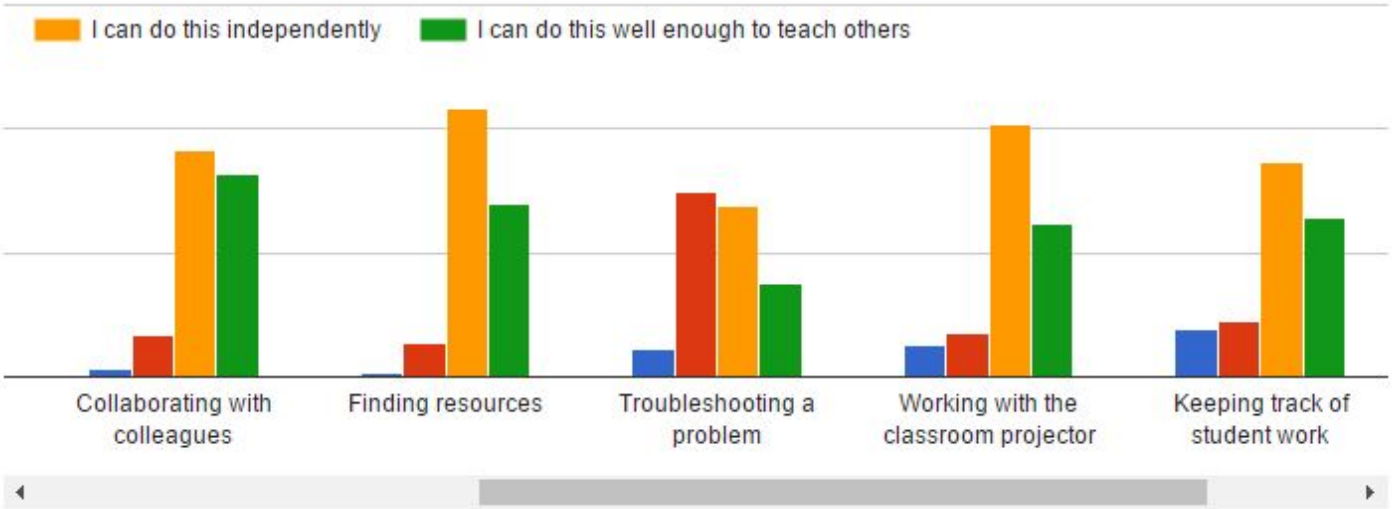
Which role describes you best? (381 responses)



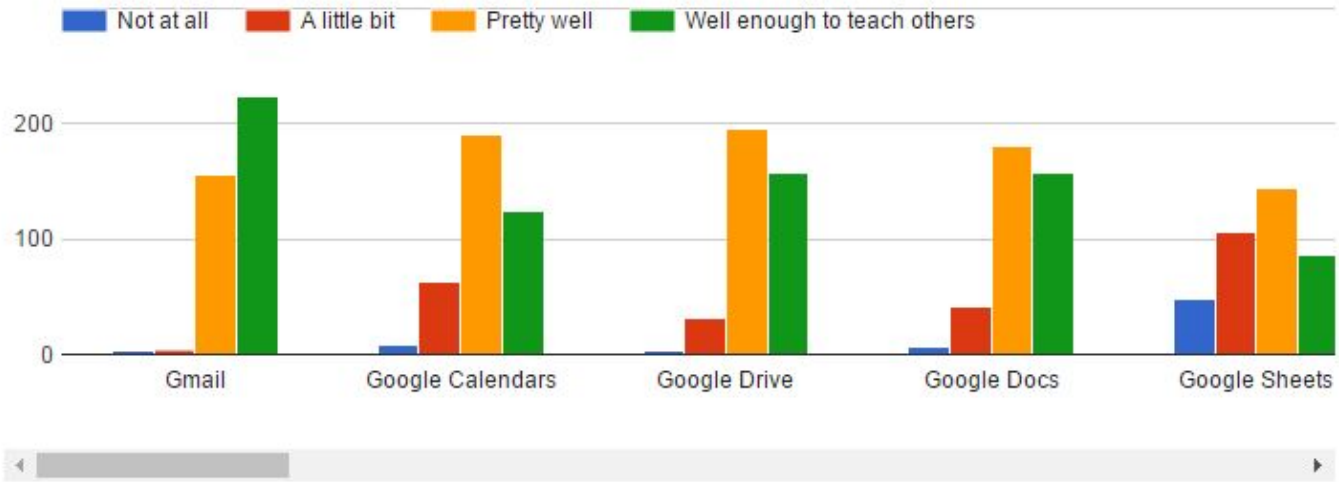
What grade(s) do you work with? (386 responses)



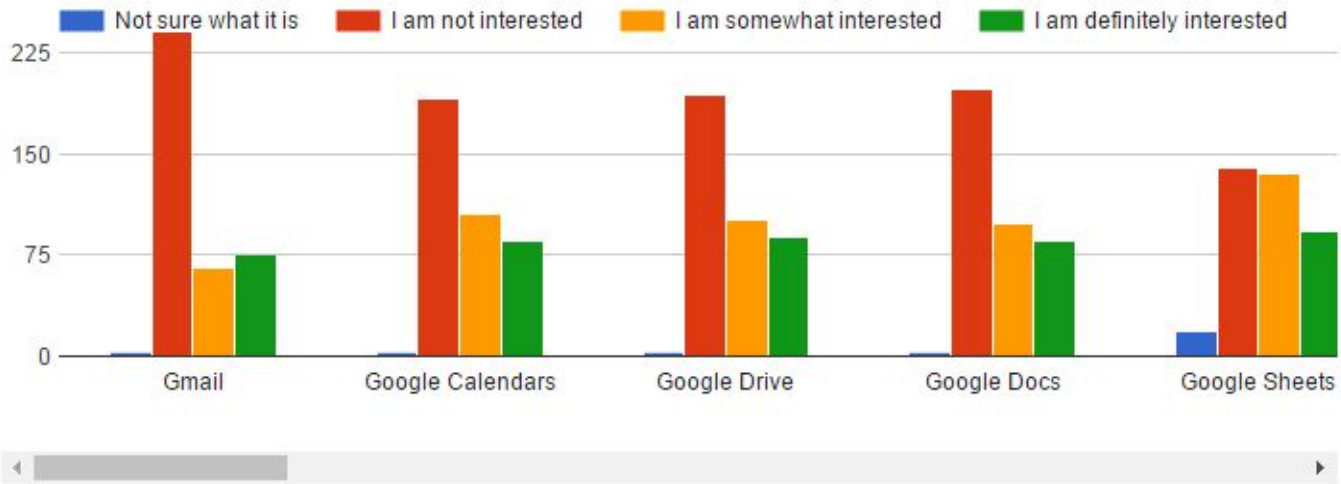
How comfortable are you with using technology for the following skills?



How well do you know the following technology tools/applications?



Please rate your level of interest in learning the following technology tools/applications



Who helped you meet your technology training needs this year? (386 responses)