SHENENDEHOWA CENTRAL SCHOOLS

2015-2016 Technology Integration Plan

Committed to Excellence: Leveraging the capacity of technology to enhance the experience of our students and improve student achievement.

Dr. L. Oliver Robinson, Superintendent of Schools

Adopted by the Board of Education – (insert date)

The Shenendehowa Central School District endeavors to provide a high-quality educational experience; ensuring students have the skills necessary for success in college and career.

The learning environment infuses the skills of critical thinking and problem solving, communication, collaboration, creativity and innovation within the classically important study of literacy, numeracy, sciences, social sciences, and arts.

Shenendehowa 20/20 Vision

Shenendehowa is committed to modernization of the educational program where 21st century teaching practices are embedded throughout classrooms across the school district. This ***Academic Retooling*** includes having flexible and collaborative structures, maintaining a global-focus and fully integrating innovative practices. Additionally, capitalizing on the power of technology to learn and communicate will enhance the District's ability to ensure success for all students.

A 21st century education:

- Provides a ***global focus***, preparing citizens for their role in an increasingly interconnected world,
- Engages students in their learning through the use of ***innovative instructional practices***,
- Facilitates a ***collaborative learning environment***, where outcomes are enhanced through teamwork and cooperative efforts, and,
- Ensures ***success for all***.

Instruction in the 21st Century

Shenendehowa recognizes the vital and primary role of teachers in providing students with the skills to enable long-term personal and professional success. The integration of technology serves as an important complement to the wide-array of instructional tools used in classrooms. Teachers work to make classrooms vibrant places of instruction, where students are engaged and content is presented in a dynamic and intellectually-engaging manner.

Technology is used to enhance the instructional program by:

- Providing access to tools that enhance pedagogy and classroom lesson-design (presentation software, data analysis, collaboration)
- Actively engaging students in their learning
- Customizing instruction based on individual student needs
- Articulating the Common Core Learning Standards in well-developed, web-based curriculum maps

Teachers are provided with access to professional development to support their abilities to modernize the instructional program.

Learning in the 21st Century

Learning in the 21st century focuses on the needs of our students, providing for a positive, enriching, and engaging educational experience.

Technology is used to enhance student learning by:

- Stimulating intellectual curiosity and capacity
- Increasing student engagement in learning
- Facilitating problem-solving and collaboration between students
- Ensuring the educational program replicates how students seek information in their lives
- Providing anywhere access to educational resources

Development of the Technology Plan

The District Technology Plan has been developed and refined over many years and is updated annually. Contributors to the plan include the administrative team (Superintendent, Director of Technology, Assistant Superintendent of Curriculum and Instruction), the District Instructional Technology Integration Committee (DITIC) which represents stakeholder groups, and Building Technology Committees.

Involvement of Stakeholders

The District Instructional Technology Integration Committee (DITIC) serves a key role in supporting the integration of technology throughout the District and providing input into the supports for teachers and students. DITIC also assists with the collection of survey data, gathering feedback from teachers and students annually on the integration of technology in Shenendehowa.

The Role of Assistive Technology

Technology that supports a student's ability to access instruction, materials, and assessments is student-specific and is both identified and approved through the Committee on Special Education (CSE) and documented in the student's individual education plan (IEP).

Shenendehowa provides assistive technology for students with disabilities when such technology can be used to increase, maintain, or improve the functional capabilities of a student with a disability. When such technology is requested or recommended, the district's Assistive Technology Specialist, consults with the individual student to determine the potential effectiveness of the device. Where it is determined that the technology will ensure access to and participation of the student in the curriculum, the assistive technology will be approved through the CSE.

Integration of Technology in the 21st Century

Shenendehowa is committed to the full and unabashed integration of 21st century technology, capitalizing on its potential to transform and modernize the educational environment.

Integration of technology focuses on several key areas:

Board of Education Policy

Shenendehowa Board of Education Policy supports the integration of technology as part of its commitment to providing a 21st century learning environment.

Student Use of Computerized Information Resource – Acceptable Use Policy	7317 7317 R
Bring Your Own Device – Student Use of Personal Technology During the Instructional Day	7316 7316 R
The Children's Internet Protection Act: Internet Content Filtering Safety Policy	8271 8271 R
Code of Conduct for the Maintenance of Order on School Property	3410 3410 A

Infrastructure - Robust Network

Information Management Services (IMS), working in collaboration with district leadership and the Office of Curriculum, Instruction, and Assessment, is the focal point for the acquisition, support, maintenance, and obsolescence of technology in the district. IMS houses the core district networks and internet services.

The Shenendehowa Central Schools Educational Network (shenet) encompasses WAN/LAN & WLAN technologies. Originating from a centralized Network Operations Center (NOC) and branching out over a fiber infrastructure, the district provides a secure and stable layer three network carrying data, voice and video. In accordance with federal regulations all Internet traffic, both wired and wireless is filtered per Children's Internet Protection Act (CIPA) requirements.

Through a capital improvement project the district has expanded its wireless network providing comprehensive Wi-Fi coverage at all schools, including many outdoor spaces. The district subscribes to a 400MB Internet services with the capacity to upgrade to 1GB if the need arises. Each school houses computer labs with internet access, Microsoft Office, and a suite of software applications specific to the instructional level of the students. Proprietary computer labs support specialized courses (engineering, art, CTE, etc.) that are delivered through course-specific software. Classroom learning environments have a networked, district computer, linked to an LCD projector. A growing number of classrooms also house Interactive Whiteboards (IWBs), document cameras, mobile devices and other instructional technology.

Hardware - Proliferation of Devices

Shenendehowa continues to seek digital technology solutions that enable staff to facilitate learning through technology and students to consume information and compose products representative of their learning. The District is committed to:

- ensuring comprehensive access to technology for students
- working toward a 1:1 learning environment
- readiness for on-line assessments

Hardware that is both district-provided and personally-owned will be utilized.

District-Provided Hardware **– Mobile devices will be integrated throughout the elementary, middle, and high school, in support of student learning and in an effort to maximize the District's investment.**

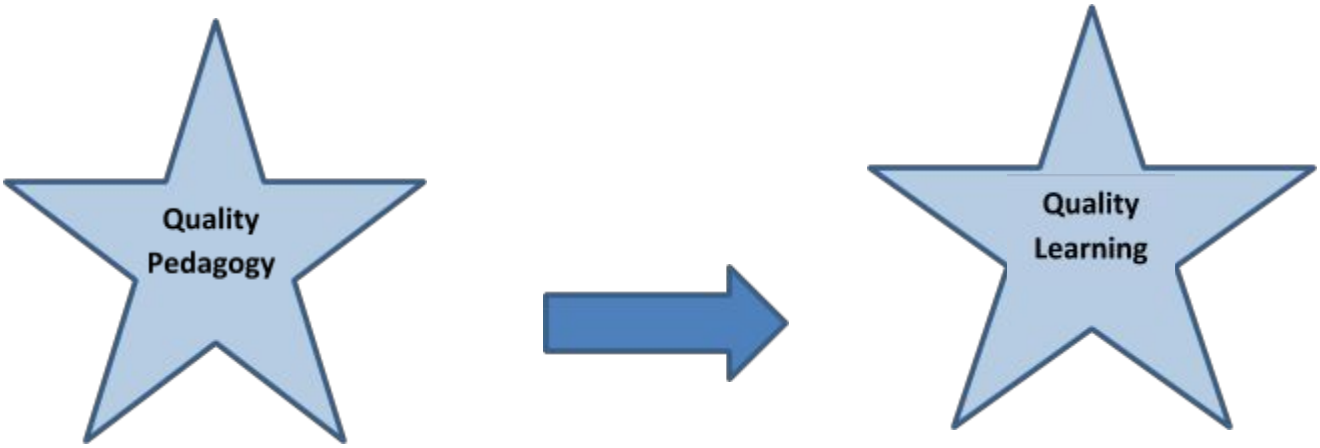
Bring Your Own Device (BYOD) **– Students will be invited to use personally-owned technology in school, in accordance with District policy 7316, and regulations 7316 R.**

Shenendehowa will continue to integrate digital content and electronic curriculum resources into the District's collection of instructional materials, when possible.

High-quality digital content and curriculum resources are:

- interactive
- available for 24/7 use
- easily-upgraded
- customizable, based on student and teacher needs

A quality education continues to be about the acquisition of content and skills across multiple areas of study and disciplines. The integration of digital content does not change ***what*** is taught, but rather provides greater options for ***how*** students access content and demonstrate their skills. The rapid proliferation of educational software has expanded the manner in which teachers are able to deliver information. Further, teachers are better able to track student progress and are able to design instruction that can be customized based on individual student needs.



Shenendehowa provides staff members with professional development opportunities year-round in support of their continued growth. Professional development is offered through the Center for Innovative Learning, where continuous improvement is central to all work. All professional development employs pedagogical methods that integrate best and research-proven teaching strategies, modern learning technologies and real world resources and contexts based on the needs of the school community.

Professional development opportunities specific to the integration of technology are offered through multiple means including workshops, after school seminars, department and faculty meetings, one-on-one tutorial sessions with the Lead Teachers for Technology and on-line resources.

Technology Integration Plan – Planning Forward

The primary goal of the Shenendehowa Technology Integration Plan is to enhance student learning. The District provides ubiquitous ***Anywhere Access*** through continued expansion of:

- infrastructure (district wide Wi-Fi access);
- hardware; and
- digital content and curriculum resources.

The District continues to provide professional development opportunities for staff to integrate technology into instruction. The District further has multiple means (website, teacher-parent/student communications) of sharing information related to technology and its use with the multiple stakeholders.

Infrastructure - Robust Network

In support of the increased integration of hardware and digital content, the District network provides:

- Secure, filtered Internet access over a District-wide network (Wired and Wireless), in accordance with federal law and Board of Education policy. The District carefully filters all content accessed through the District's network. The District blocks social media sites and content considered inappropriate for minors in the educational setting.
- A 400MB Internet connection with the capacity to expand to 1GB.
- 10 GB fiber optic connections between the data center and all district sites.

Current Areas of Priority:

- Investigating and preparing for offsite content filtering for school-provided mobile devices
- Investigating viable options for recording, storing, and accessing collections of digital recordings (i.e., video)
- Ensuring ease of access for students and staff to District's WIFI network
- Implementing a fiscally-responsible, managed-print solution that is flexible and meets the needs of students and staff.
- Investigating best practices for storing, sharing and securing institutional documents using cloud based solutions.

Hardware - Proliferation of Devices

The District continues to expand the number of mobile devices used within schools to increase student access to digital content and curriculum resources

District-Provided Hardware:

- iPads continue to be infused into elementary classrooms. Teachers, through an application process, have the opportunity to integrate six iPads and one Apple TV to their instructional program.
- Chromebooks are used in middle school science classrooms in support of digital content. Additionally, secondary school teachers (gr. 6-12) have the opportunity to apply for clusters of six to 15 Chromebooks to integrate into the instructional program.
- Desktop computers, servers, printers, LCD Projector and mobile devices continue to be replaced through a fiscally-responsible obsolescence plan.

Devices	2013-14	2014-15	2015-16
iPads - Elementary	240	260	480
iPad replacement	0	0	300
Apple TV – Elementary	3	42	65
Chromebooks – Middle Schools	540	555	527
Chromebooks – High Schools	203	330	327
PC/Laptop replacement	460	530	352
Interactive Whiteboards	22	24	42
LCD Projectors	0	0	200
Printers/Multi-function Devices (Replaced)	190	203	7
Servers	3	3	3
Storage - SANS/Tape BU/Arrays	1	1	1
Network Switches	0	85*	5
Wireless Access Points	0	730*	15
Firewall/Filter/Packet Shaper	0	1*	0
**Included in Capital Project*			

Mobile Device Classroom Coverage

Instructional Level - Device Type	% of Teachers with Mobile Devices for Student Use
Elementary - iPads	60% (classroom teachers)
Middle School - Chromebooks	48%
High School - Chromebooks	15%

Bring Your Own Device (BYOD) - Use of Personal Technology*:*

- Students are invited to bring personally-owned technology in support of their learning, to maximize their time spent on school work, and enhance their organizational skills.

Current Areas of Priority:

- Expanding the number of mobile devices working toward a 1:1 learning environment.
- Sincere invitation for students to BYOD in support of their learning; policy alone is only the first step. The invitation to students must include permitting access when technology makes sense for students to enhance their productivity and access to content in support of their learning.
- Identify opportunities through obsolescence to replace PC labs with mobile devices, expanding the utilization of instructional spaces, providing flexible access to instructional technology and leveraging the wireless network.

Shenendehowa will continue to integrate digital content and electronic curriculum resources into the District's collection of instructional materials, when possible.

High-quality digital content and curriculum resources include

- Adoption of digital science tech book (gr. 6-8)
- Think Central in support of Elementary Math Series (gr. K-5) and Literacy Series (gr. 1-5)
- Google Apps for Education & Google Classroom (gr. 4-12)
- Digital units of study and comprehensive digital service (Discovery Streaming) for social studies (gr. K-5)

Current Areas of Priority:

- Sourcing digital content that not only replaces textbooks, but offers a wide range of interactive and engaging content
- Continued expansion of Google Apps for Education, moving toward increase in digital files and exchange of instructional materials and assignments using Google Classroom, reducing paper
- Supporting teachers in their use of video for professional development and innovative instructional practice
- Additional digital content and curriculum resources will be explored and publicized by the Lead Teachers for Technology

Current Areas of Priority:

- ➢ Google Platform: Sites, Classroom, Hangout
- ➢ Integration of iPads
- ➢ Integration of videos through The Teaching Channel to collaborate and learn

Course offerings through the District's ***Summer Academy for Educators***:

Title of Session	Date	Audience
Successful Strategies for iPad Recipients (K-5)	June 30, July 2, July 20, August 10, 2015	New iPad Recipients
Engaging Students with Interactive Flipcharts	July 1, 2015	Activinspire Flipchart Users
Google Sites	August 11 and September 2, 2015	Educators New to Google Sites
iMovie for iPad	July 21, 2015	New iPad Recipients
Google Apps for Educators (GAFE) Grades 4-5	July 23, 2015	Educators New to Google Apps
Google Sites	August 11 and September 2, 2015	Educators New to Google Sites
Apple Your Way – iPhones/iPads at their Best	August 13, 2015	Educators desiring to enhance device knowledge base
IC New Secondary Gradebook Training	August 13, August 18, August 19, and September 1, 2015	Educators New to Gradebook's New Instruction Module

Course offerings through the District's ***Center for Innovative Learning***:

Date & Time	Workshop	Description
October 6 9:00-3:00	**Google Apps for Education and Classroom**	Work collaboratively with your students using Google's cloud-based word processing, spreadsheet, presentation and form applications. For more information about GAFE

		https://www.google.com/edu/products/productivity-tools
October 7 8:30-11:00	**Promethean IWB for NEW Users**	If you've never before used a Promethean interactive whiteboard (IWB) this BASIC training will help you learn the most common tools and features, annotate over PDFs and other documents as well as download flipcharts to use with your class. This workshop is designed primarily for teachers with little or no IWB experience.
October 13 8:00-11:00	**Teaching Channel Video**	Join us as we surf the Teaching Channel as an avenue to develop your professional practice with your PLC or members of your school. In this session, we will look at the way this resource can be used to enhance your own teaching practice as well as the members of your team (PLC, grade level, discipline, school).
October 13 8:30-11:00	**Google Sites**	Learn to use the "Google Apps Site" tool to create teacher and or student webpages (leveraging all of the apps tools as content) that can be published to specific groups, all of Shen, or the entire world.
October 13 3:45-4:30	**Google Classroom**	This one hour session builds on participants prior knowledge of using Google Drive to setup a Google Classroom site. In Classroom, students can enroll in your class using a code and then receive and submit assignments electronically. Assignments can be graded, returned and tracked all within the google Classroom interface. http://classroom.google.com
October 15 3:45-4:30	**Using YouTube Playlists for Student Enrichment**	YouTube is filled with tons of viral videos with pop stars, cats and car accidents. However it also has lots of great educational content. In almost any subject area you can put together a topical list of videos and share them to enrich student learning. In this session you will create a playlist and connect it to your youTube shenschools.org account. For an example of this go to www.shentrac.info. Click on resources, then choose a video playlist.
October 19 2:45-3:45	**Getting Started with RAZ Kids**	New to RAZ? Learn to set up your class roster and all the basics of using this fabulous literacy tool with students.
October 22 12:30-3:00	**Google Forms**	Survey students, parents, others via a web-created form and then automatically build charts, mail merges, or scored/emailed quiz results. Google forms is a powerful tool for collecting data. Responses to the form are stored in a Google sheet. Use the data collected to automate reports, certificates, and many other tasks.
October 29 12:30-3:00	**Teaching Channel Teams**	This session will show how to use the Teaching Channel to analyze your teaching practice.
November 16 8:30-11:00	**Google Apps for 4th & 5th Grade**	Learn how 4th and 5th grade teachers and students can take advantage of Google tools for online productivity and collaboration. This will be a pared down version of

		Google Apps training geared specifically for Grades 4 and 5.
November 16 12:30-3:30	**Google Sites**	Learn to use the "Google Apps Site" tool to create teacher and or student webpages (leveraging all of the apps tools as content) that can be published to specific groups, all of Shen, or the entire world.
November 18 9:00-3:00	**How to Create Content for Your Flipped Classroom!**	Learn how to use several tools like Camstudio, Screencastify and Activstudio to create video tutorials of your lessons and then upload and organize them on YouTube/Google Sites. Please come prepared to make a 8 minute video on a topic appropriate for your class.
November 24 8:30-11:00	**Engaging Students with Interactive Flipcharts**	Move beyond the basics to more advanced, interactive options for creating ActivInspire flipcharts.
December 1 12:30-3:00	**iMovie for iPad**	Must have an iPad with iMovie installed prior to class. Shoot footage with the iPad, then create amazing videos with music and special effects.
December 2 3:45-4:45	**QR Codes for the Classroom**	QR codes are a barcode based technology for sharing information and websites. QR codes have many classroom applications. Although this session is applicable to K-12, it will include many examples for K-5 teachers with iPads. Bring your own mobile device.
December 8 12:30-3:00	**Promethean IWB for NEW Users**	If you've never before used a Promethean interactive whiteboard (IWB) this BASIC training will help you learn the most common tools and features, annotate over PDFs and other documents as well as download flipcharts to use with your class. This workshop is designed primarily for teachers with little or no IWB experience.
December 9 3:45-4:45	**Plickers: Instant Assessment with just 1 mobile device**	Use the Plickers app and an iPad or smartphone to quickly check for understanding. Students do NOT need mobile devices, only the teacher. Simple and powerful!
December 15 9:00-3:00	**Google Apps for Education and Classroom**	Work collaboratively with students using Google's cloud-based word processing, spreadsheet, presentation and form applications. For more information about GAFE: https://www.google.com/edu/products/productivity-tools
December 17 12:30-3:30	**Google Sites**	Learn to use the "Google Apps Site" tool to create teacher and or student webpages (leveraging all of the apps tools as content) that can be published to specific groups, all of Shen, or the entire world.
January 26 9:00-3:00	**Google Apps for Education and Classroom**	Work collaboratively with students using Google's cloud-based word processing, spreadsheet, presentation and form applications. For more information about GAFE: https://www.google.com/edu/products/productivity-tools

January 27 12:30-3:00	**Google Forms**	Survey students, parents, others via a web-created form and then automatically build charts, mail merges, or scored/emailed quiz results. Google forms is a powerful tool for collecting data. Responses to the form are stored in a Google sheet. Use the data collected to automate reports, certificates, and many other tasks.

Additional courses will be offered through the Center for Innovative Learning throughout the school-year and are also offered as job-embedded professional support, at the request of individual teachers and staff members, in an effort to customize the professional development for Shenendehowa staff members.