

Gilford
School District
SAU 73

Technology Plan

2021

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Gilford School District Mission & Vision

Gilford School District is to provide innovative education, creating pathways to success for all learners.

Vision Statement

The Gilford School District (GSD) aspires to prepare each learner to thrive as an adaptable citizen by providing a rigorous education, while supporting the whole child. GSD expects our learners to be self-directed and engaged. We succeed when we each:

- demonstrate critical and creative thinking,
- persevere through challenges and solve problems;
- communicate and collaborate as a learner and community member.

Technology Vision Statement

It is Gilford School District's philosophy to ensure that technology becomes an integral and routine part of the learning experience in the Gilford educational community.

We believe that technology, appropriately and effectively used, is an essential tool for creating challenging interactive learning environments.

Technology should be integrated into all aspects of the curriculum where appropriate.

Technology should be utilized to the fullest extent to streamline administrative tasks.

Provide adequate access to technology, training, and technical assistance for systems and curriculum integration.

Goals

The District will expand the use of technology in the educational process in order to:

1. Improve student skills in all academic subject areas.
2. Improve and increase student and faculty access to information and resources.
3. Implement an integrated approach to the use of 21st century tools, including, but not limited to digital technology and communication tools, within all curriculum areas.

Strategies:

- upgrade applications, peripherals, and infrastructure on an ongoing basis without significant budget spikes
- maintain a secure network
- provide hardware, software, and connectivity for staff and student use

Student Learning:

1. Provide a developmentally appropriate collection of instructional resources that shall be current, comprehensive, and necessary to support the curriculum as well as the instructional needs of the total school population
 - Maintain our mobile device one-to-one initiative for students K-12
 - Develop and implement a plan for remote instruction for K-12 staff
 - Ensure opportunities are provided and accessible (i.e. AP, Virtual High School, college courses, community-based programs, etc.) . Increase participation in on-line & virtual activities & coursework where appropriate and cost effective
2. The Gilford School District will develop and maintain an ongoing curricular framework across the Gilford School District that will include various technology components that are taught and integrated throughout all classrooms in the Gilford School District
3. Ongoing implementation of ethics strand of technology curriculum as it integrates throughout all of the learning activities for students including but not limited to copyright, hacking, virus protection, appropriate use, etc. Promote responsible use of technology in developing the good student/citizenship skills.

Safety & Facilities

1. Provide a secure network environment for the district
 - Revise & update backup and restoration procedures updated as technology changes
 - Revise & update Firewall protection and update network vulnerabilities to protect against external threats
 - Utilize hosted solutions for critical applications
 - Conduct an annual security audit by an outside firm as required by the state of New Hampshire
 - Participate in the national Student Data Privacy Consortium to have all of our technology applications vetted for security of PII information.
2. Provide adequate infrastructure for fully equipped classrooms as technology changes
 - Provide significant bandwidth for effective student access including wireless access, WAN connections (10 GB switched network)
 - Upgrade classroom instructional resources with emerging technologies items such as virtual reality computer systems and other technologies as they come out need to be addressed via the budget
- 3, Maintain and upgrade video surveillance systems in the district to provide for security
 - Develop a replacement and ongoing maintenance plan of existing cameras systems throughout the district.

Resource Management

1. Gilford School District will look to improve efficiency and ease of use with technology where applicable. Consideration should be given to the following items but not limited to:
 - Implement long-term archiving of important documents / files of Gilford School District Records – i.e. board meetings, student records
 - Transition from paperwork to electronic option for paperwork reduction and cost-savings overall
 - i. Online staff self-service human resource portal
 - ii. Utilize electronic file storage of My Learning Plan options
 - iii. Consider implementation of online timesheets, purchase orders, etc
2. Gilford School District will provide the necessary hardware and technology resources access to support student learning.
 - An ongoing replacement plan and cycle of all technology aspects including hardware (five years for computers and four years for chromebooks), subscription services etc will be developed without a significant budget spike or yo-yo effect. GSD will provide adequate personnel to support the use and maintenance of technology in the Gilford School District.
3. GSD will provide adequate technical staff to support technology use throughout the district
 - Provide adequate technical staff for just-in-time support to be readily available on-site for both infrastructure and application
4. GSD will maintain and update the network and infrastructure on a regular basis. Redundancy will be implemented of specific components to provide reliable and consistent service.
5. In the next MEP study for the district, consideration should be given to include such tools / resources to be included as clock system, public address system, bell system whether through the B & G Dept.or Technology Dept.

Personnel

Current staffing is as follow:

- 1 full time District-wide Technology Director
- 1 full time District-wide Assistant Technology Director
- 1 part time summer help

Workstation / Mobile Devices

Typical expectation for computer replacement is: 20% every year so that computers have a 5 year life expectancy. Expectations for chromebook replacement is ~~33%~~ 25% every year based upon current use. Students would receive a new chromebook in 1st, 5th & 9th grade. They would use the same chromebook for all four years.

Item	Inventory	Annual Replacement Amount	Projected Individual Cost	Projected Annual Budget Total
Computers	275	65	\$800	\$52,000
Chromebooks	1250	350	\$230	\$80,500
				\$132,500

Network / Infrastructure

The network and infrastructure is a vital component that needs to be maintained and updated on a regular basis. Redundancy of specific components is key to providing reliable and consistent service.

Annual Replacement of Network / Infrastructure

Item	Inventory	Individual Cost	Total Cost	Cycle	Projected Annual Budget Total
Firewalls	2	\$4000	\$8,000	5 years	
Webfilter	1	\$35,000 - \$50,000	\$50,000	5 years	
Backup Power	15	\$1,800	\$27,000	5 years	
Storage Devices	2	\$15,000	\$30,000	5 years	
VM Hosts - Servers	3	\$6,000	\$18,000	4 - 5 years	
			\$133,000	5 years	\$26,600 per year

Long-Term Replacement Upgrade of Network / Infrastructure

The use of capital reserve funds should be considered for funding for long-term (more than 5 years) projects as currently is being done with the wireless infrastructure. An ongoing request for long term replacement of technology infrastructure through the Capital Improvement Plan should be considered. The amount to be determined as the timeline of upgrades is considered.

Item	Inventory	Individual Cost	Projected Total Cost	Cycle	Average Budget Total
Cabling	3 buildings	\$120,000	\$360,000	10 – 15 years	
Phone	2 systems	\$10,000 - \$100,000	\$110,000	8 – 10 years	
Fiber	10 Internal	\$8,000	\$80,000	10 years	
Fiber	External	\$75,000	\$75,000	15 years	
Wireless Infrastructure	136	\$800 - \$900	\$120,000	7 years	
Switches	13	\$4,000 - \$10,000	\$80,000	8 Years	
Video Surveillance	3 schools, SAU & Meadows	\$20,000 - \$60,000	\$160,000	8 - 10 years	
			\$989,000	10 years	

Funding for technology must remain fluid as more services and / or devices are drawn into the technology umbrella such as the video surveillance systems, financial & SIS upgrades. This budget summary below will be reviewed and revised annually on an as needed basis. The costs reflected below are approximations based upon current technologies and services.

Budget Projections

	20-21 Actual	21-22 Actual	22-23	23-24	24-25
Repairs	2250	1500	1500	1500	1500
Supplies	29000	27000	27000	27000	27000
Software	12400	7250	7000	7000	7000
C/S	165180	205240	200000	200000	200000
New Equip	0	0	0	0	0
Repl Equip.	184143	136352	150000	160000	168000
	392,973	377342	347500	365500	381900

Projection Systems -

In addition to the technology budget, classroom projection systems are on an ongoing replacement plan. These have been funded through the schools’ budget. The costs reflected below are approximations based upon current technologies and services.

	Count	Cost per year
GES	4 per year	\$8,200
GMS	4 per year	\$8,200
GHS	4 per year	\$8,200
District (Auditorium, SAU etc)	1 per year	\$2,500 - 10,000

Conclusion

As technology progresses at a faster and faster pace, we can barely keep up with it. As emerging technologies become a crucial part of our everyday lives, we as a district must make technology an integral part of our operations. Otherwise, we run the risk of becoming increasingly irrelevant to our student’s perception of the world.

We hope to be able to integrate technology throughout our educational system not only in curricular and instructional areas, but also to improve processes throughout the school community.

All Gilford students should be provided with the necessary tools that will enable them to meet their highest academic and professional goals for the 21st century.