

# WARWICK VALLEY CENTRAL SCHOOL DISTRICT

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## TECHNOLOGY PLAN

2017-18 through 2018-19

Warwick Valley Central School District  
TECHNOLOGY PLAN  
2017-2019

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## **BOARD OF EDUCATION MISSION AND GOALS**

### **Warwick Valley Central School District Board of Education Mission Statement:**

To provide all students with the necessary skills to thrive in the 21st Century as learners, workers and citizens.

### **Board of Education Goals:**

To create an educational system that supports learning in a changing society and prepares all students for a successful life in and beyond school through:

- Continuous collaborative improvement of instruction and instructional leadership that supports delivery of 21st Century skills
- Continuous data-driven improvement in student performance, engagement and satisfaction using relevant assessments that measure 21st Century outcomes
- Supporting student success in home, school and community
- Fostering a culture where individuals are valued and engaged

## **EXECUTIVE SUMMARY**

The mission of the Warwick Valley Central School District's Board of Education is to provide all students with the necessary skills to thrive in the 21st century as learners, workers, and citizens.

In its commitment to preparing students for a 21st Century global economy, the Board of Education has supported the building of a cutting-edge technology infrastructure that will allow the district to keep pace with a rapid changing educational technology landscape and provide students with greater opportunities to rich multimedia and Internet resources in and out of school. The technology resources will also allow students to communicate and collaborate with their peers, become problem solvers and proficient in information literacy.

The District technology department is charged with leveraging the robust technology infrastructure and resources to support a dynamic and exciting teaching and learning process, and provide opportunities for personalized learning.

The technology plan is a dynamic plan that can be updated to reflect trends in technology development and applicable mandates. Its purpose is to provide the District with a road map for the next three years (2016-2018), which will guide its technology maintenance and upgrades, while focusing on supporting the teaching and learning process.

According to the International Society on Technology Education (ISTE), "Today's students need to be able to use technology to analyze, learn, and explore. Digital age skills are vital for preparing

students to work, live and contribute to the social and civic fabric of their communities.” The District is committed to maintaining a reliable, secured, manageable and scalable technology infrastructure, to provide exciting learning opportunities for its students.

The technology plan was developed with continued support from the Board of Education, Superintendent, Assistant Superintendent of Curriculum and Instructional Services, District Technology Committee and Department of Technology.

## **CURRICULUM AND INSTRUCTION**

The Warwick Valley Central School District’s is fully committed to using technology to enhance its curriculum and instructional practices. We will also be focusing on using technology effectively to develop students’ skills in information literacy, critical thinking, problem solving, research, communication and collaboration. We have identified goals and objectives to help guide us in maximizing the District’s technology resources to benefit our students.

### **Goals:**

Goal 1: The Warwick Valley Central School District is committed to maintain its network infrastructure to support digital, blended and online learning.

Goal 2: The Warwick Valley Central School District is committed to maintaining a wireless infrastructure to provide students with greater access to rigorous and rich online educational content, through a Bring Your Own Device model and 1:1 computer to student ratio.

Goal 3: The Warwick Valley Central School District is committed to provide learning environments that can support multimedia rich learning experiences for all students.

Goal 4: The Warwick Valley Central School District will continue to support a cloud based environment to provide ubiquitous access to learning resources

Goal 5: The Warwick Valley Central School District is committed to increase student achievement by providing professional development opportunities for its teachers in integrating technological applications to classroom curriculum, instruction and data management.

**OBJECTIVES/ TIMELINE/ DESCRIPTION/ DOCUMENTATION**

Goal 1: The Warwick Valley Central School District is committed to maintain its network infrastructure to support digital, blended and online learning.

Objective 1A: Google devices will continue to roll out Chrome devices and upgrade its interactive White Boards

Objective 1B: The District will maintain, and upgrade its core network infrastructure as needed to maintain a high level of services to its users.

Objective 1C: The District will create a communication/library-media center in the high school with state of the art technology throughout the area.

Objective 1D: The District will continue to plan and support the use of technology in special education settings including assistive technology

ACTIVITY	TIMELINE	DESCRIPTION	DOCUMENTATION
Communicate to stakeholders	Ongoing	Board presentation and newsletters	Project plan and inventory
Conduct and review hardware inventory	Ongoing	We just finished a full review of all of our technology including peripherals. We put a scannable asset tag on each device so it will be easier going forward	Inventory template
Plan to acquire new hardware	July 2016 July 2016 July 2018	District office will work with teachers and administrators to determine needs	Hardware acquisition plan

ACTIVITY	TIMELINE	DESCRIPTION	DOCUMENTATION
Upgrade images on replacement computers	July-August 2016 July-August 2017 July-August 2018	Master image will be created to support the needs of the curriculum	Desktop application audit
Conduct an audit of the network infrastructure	Ongoing	The ASI will work with independent contractors	Inventory/Network documentation/purchase orders
Review IEPs for appropriate technology implementation with our special education policy	ongoing	The ASI, the Director of PPS, and the Supervisor of Special education will meet regularly to review IEPs and determine what technology is needed. They will also bring in outside consultants when needed	IEPs
Continue to use online resources to support the RTI process	Ongoing	The ASI, Educational evaluators, and other service providers will continue to work with teachers and students to analyze data from the online resources to determine what resources are working and what most benefits our students	Data from online resources/RTI Plans



Goal 2: The Warwick Valley Central School District is committed to build a wireless infrastructure to provide students with greater access to rigorous and rich online educational content, through a Bring Your Own Device model and low computer to student ratio.

Objective 2 A: A wall to wall wireless infrastructure will be maintained and upgraded at all district buildings to support the use of district owned mobile devices, a Bring Your Own Device (BYOD) model and low computer to student ratio.

ACTIVITY	TIMELINE	DESCRIPTION	DOCUMENTATION
Communicate to stakeholders	Ongoing	Board presentations and newsletters.	Project plan
Identify funds to maintain	March-2016 March-2017 March 2018	Assistant Superintendent of Business	District budget
Upgrade and replace wireless at all buildings	July 2016	Switch from Meru to Extreme	Purchase orders

Goal 3: The Warwick Valley Central School District is committed to provide learning environments that can support multimedia rich learning experiences for all students.

Objective 3A: The District will maintain the current Smart Boards and start to invest in interactive televisions. These interactive televisions will be connected to the classroom computers for the use of the Internet and multimedia.

Objective 3B: The District will create a communication suite at the HS with all new computers for

multimedia productions such as video editing and development

Objective 3C: The District will continue to support and foster a relationship with the community members and local private schools within its boundaries.

ACTIVITY	TIMELINE	DESCRIPTION	DOCUMENTATION
Communicate to stakeholders	Ongoing	Board presentations and newsletters.	Project Plan
Conduct a needs assessment of Interactive TVs and which classrooms should receive the first ones	Ongoing	Tech dept.	Inventory PD Plan Survey of admins and staff
Develop plans and create a whole new communication suite	July2015-September 2016	Office of Technology Business office Building and Grounds	Purchase orders
Coordinate with Business Office and Buildings & Grounds	Ongoing	Tech Dept. communicate with the Director of B&G	Project plan
Coordinate and support the local private schools in the district's boundaries	Ongoing	Will advise the local private schools on trends in instructional technology and invite them to PD opportunities that the district has	PD Plan

Goal 4: The Warwick Valley Central School District will continue to support a cloud based environment to provide ubiquitous access to learning resources.

Objective 4 A: The District will plan on maintaining the cloud based environment and provide continued professional development around this

ACTIVITY	TIMELINE	DESCRIPTION	DOCUMENTATION
Communicate to stakeholders	Ongoing	Identify best practices to support technology integration	Research and Best Practices
Review curriculum needs	Ongoing	Assistant Superintendent	Curriculum and Management Learning Solutions
Plan for professional development	Ongoing	ASI with ASB	Purchase orders PD Plan

**PROFESSIONAL DEVELOPMENT**

Goal 5: The Warwick Valley Central School District is committed to increase student achievement by providing professional development opportunities for its teachers in integrating technological applications to classroom curriculum, instruction and data management.

The Warwick Valley Central School District recognizes that quality professional development has a significant and direct impact on instruction and learning. The district sees professional development as essential to the full achievement of its mission: To encourage programs and activities that will foster excellence and raise expectations of students, staff and community.

Objective 5 A: The District will use Bloom’s digital taxonomy and the International Standards for Technology and Education (ISTE) standards as frameworks to plan and conduct its professional development in technology. The District will also leverage the use of online technology for the delivery of its professional development.

The following platforms will be used to conduct professional development sessions:

- Provide direct classroom support by modeling and coaching
- Using webinars, blogs, videoconferences, on-line learning and other social media
- Train the trainer, Learn one, Teach one
- Attending conferences
- In-Service courses
- Professional Learning Communities

The District maintains subscription to the instructional technology tools that are listed on it's website under student resources. They are chosen to support its curricula, response to intervention (RTI), and problem based learning. The District is committed to providing professional development to teachers in the effective use of these resources. These technology resources can be accessed using the Internet including mobile devices such as chromebooks, Smartphones, and tablets.

## **Technology Standards and Curriculum Mapping**

### **Goal 6:**

The notion of technology integration suggests that technology taught in isolation is not as effective as when technology is used in context. For instance, teaching students how to conduct internet research without a topic does not carry the same rigor or relevance as conducting research on the Gettysburg Address to write a history paper. Therefore, as we begin to map the district curriculum so to, will we integrate clear and defined grade level technology standards. The intent is to integrate the technology standards into any content area and/or incorporate them into the content standards of other subjects.

## **OVERVIEW OF HARDWARE**

The classrooms at the elementary level have either access to Chromebook carts or Android Tablets . Each elementary school has two computer laboratories. (Park has one that is mobile.)

At the middle and high school, classrooms have at least one computer that is used for both instructional and administrative functions. There are computer laboratories that are used for whole class instruction, and technology elective courses. There are also at 16 chromebook carts in each school.

### **Park Elementary School (K-4)**

- All instructional areas connected to the Internet
- Grade and subject appropriate enrichment supporting ELA and Math
- An average of 1 Chromebook cart for every two classrooms
- All classrooms equipped with Smartboards and document cameras

- 4 network printers available for school-wide use
- Xerox copier available- Classrooms computers are connected to the Xerox
- 1 computer lab with 29 desktops
- 1 mobile Computer Lab
- All classrooms equipped with Cisco phones (VOIP)
- Wireless access points provided throughout the building

#### Sanfordville Elementary School (K-5)

- All instructional areas connected to the Internet
- Grade and subject appropriate enrichment supporting ELA and Math
- An average of 1 Chromebook cart for every two classrooms
- All classrooms equipped with Smartboards and document cameras
- Xerox copier available
- 2 computer labs with 30 desktops each
- Library Media Center has a cluster of computers
- All classrooms equipped with Cisco phones (VOIP)
- Wireless coverage throughout

#### Warwick Valley Middle School (6-8)

- All instructional areas connected to the Internet

- Classrooms have an average of one desktop computer
- All classrooms equipped with Smartboards and most have document cameras
- 7 network printers available for school wide-use
- Xerox copier available
- 4 computer laboratories, 3 PC computer labs and 1 Apple
- All classrooms equipped with Cisco phones (VOIP)
- Wireless coverage throughout
- 16 mobile Chromebook carts

#### Warwick Valley High School

- All instructional areas connected to the Internet
- At least one desktop computer in each classroom
- All Classrooms have Smartboards and all have document cameras
- 6 network printers available
- Xerox copier available
- 9 computer lab with 30 desktops each (8 PC and 1 Mac Lab)
- Library media center has 2 labs
- All classrooms equipped with Cisco phones (VOIP)
- Wireless access throughout
- Classroom printers are available
- 16 Chromebook carts

## FUNDING AND BUDGET

The Warwick Valley Central School District relies heavily on its local budget to finance its technology projects, operations, acquisitions and maintenance. The District will aggressively seek grant opportunities and State funds to help finance its technology initiatives. We will also work with Orange Ulster BOCES to identify cost effective solutions to maintain our network infrastructure.

CATEGORY	PROJECTED 2016-17	PROJECTED 2017-2018	PROJECTED 2018-19
Network hardware (Switch, SAN, controller)	\$200,000.00	\$200,000.00	\$100,000.00
Computer hardware (mobile devices, Interactive TVs and Smart Boards)	\$200,000.00	\$250,000.00	\$200,000.00
Supplies (cable, print cartridge, LCD bulbs)	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00
Instructional Software (K-12), Microsoft Campus Agreement, online resources and Administrative software (Internet, spam filter, desktop management, MDM)	\$ 250,000	\$ 250,000	\$ 250,000
Purchased services, (VCenter, SAN, Active Directory upgrades)	\$ 20,000	\$ 20,000	\$ 20,000
Equipment Repair	\$730,000	\$780,000	\$630,000

## MONITORING AND EVALUATION

The District is committed to monitoring and evaluating the impact of the technology plan on supporting the teaching and learning process. We will use teacher and student surveys, project documentations, formal and informal feedback and program evaluations to measure the effectiveness and efficiency of the plan.

Objective 1B: The District will maintain, and upgrade its core network infrastructure as needed to maintain a high level of services to its users

<b>Action Steps</b>	<b>Timeline</b>	<b>Success Indicators</b>	<b>Data Sources</b>
Building a more effective desktop management support system	Ongoing	Closing 95% of service calls within 48 hours	IT Direct

Objective 2 A: The District will maintain a wireless infrastructure to support the use of district owned mobile devices, and low computer to student ratio.

<b>Action Steps</b>	<b>Timeline</b>	<b>Success Indicators</b>	<b>Data Sources</b>
Upgrade and maintain the wireless infrastructure at all buildings	Ongoing	Work completion according to expectations	Project documentation

Objective 3 A: The District will install Interactive televisions. These Televisions will be connected to the classroom computers for the use of the Internet and multimedia and will replace Interactive Boards (Smart Boards)

<b>Action Steps</b>	<b>Timeline</b>	<b>Success Indicators</b>	<b>Data Sources</b>
Install Interactive TVs	Ongoing	Physical installation	Project documentation



Objective 5 A: The District will use Bloom’s digital taxonomy and the ISTE standards as frameworks to plan and conduct its professional development in technology. The District will also leverage the use of online technology for the delivery of its professional development.

<b>Action Steps</b>	<b>Timeline</b>	<b>Success Indicators</b>	<b>Data Sources</b>
Developing professional development materials and schedule training	Ongoing	Number of participants attending training Request for training Feedback from participants	Surveys Attendance forms