

WARWICK VALLEY CENTRAL SCHOOL DISTRICT

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Instructional Technology Plan

2022-2025

Warwick Valley Central School District
INSTRUCTIONAL TECHNOLOGY PLAN
2022-2025

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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 the 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 be 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 (2022-25), 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 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: The District will continue to maintain its Chrome devices and 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 continue to maintain the library/media centers in all buildings with state of the art technology.

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 2022 | The District will be purchasing all new phones for the District and will continue to upgrade the telephone system. | Hardware acquisition plan |
| Upgrade images on replacement computers | Ongoing | Master image will be created to support the needs of the curriculum | Desktop application audit |

| | | | |
|--|-------------------------------|--|--|
| <p>Conduct an audit of the network infrastructure</p> <p>Review IEPs for appropriate technology implementation with our special education policy</p> | <p>Ongoing</p> <p>ongoing</p> | <p>The ASI will work with independent contractors</p> <p>The ASI, the Director of PPS, and will meet regularly to review IEPs and determine what technology is needed. They will also bring in outside consultants when needed</p> | <p>Inventory/Network documentation/purchase orders</p> <p>IEPs</p> |
| <p>Continue to use online resources to support the RTI process</p> | <p>Ongoing</p> | <p>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</p> | <p>Data from online resources/RTI Plans</p> |

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

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

Objective 2B: To evaluate and purchase instructional software that respects the Data Privacy of our students and Staff.

Objective 2C: To determine the best instructional software for our students at each grade level. This also includes specialty software to support the arts and other special areas.

Objective 2D: To continually evaluate the devices that should be utilized to get to the instructional resources.

| ACTIVITY | TIMELINE | DESCRIPTION | DOCUMENTATION |
|--|--|--------------------------------------|-----------------|
| Communicate to stakeholders | Ongoing | Board presentations and newsletters. | Project plan |
| Identify funds to maintain the infrastructure and software | March-2022 March-2023 March 2025 | Assistant Superintendent of Business | District budget |
| | | | |

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 specialized environments that have been established and continue to grow these to meet the needs of it’s learners.

Objective 3B: The District will continue to support the Career and Technical Education spaces that have been created to meet the needs of all students

Objective 3C: The District will continue to support and foster a relationship with the community members and provide technology that will not only support the District but the overall community of Warwick.

Objective 3D: The District will continue to research and learn from other schools (both public and private) to provide the best learning environment for it's students.

| ACTIVITY | TIMELINE | DESCRIPTION | DOCUMENTATION/ MEASUREMENT |
|---|----------|---|--|
| Communicate to stakeholders | Ongoing | Board presentations and newsletters. | Project Plan |
| Conduct a needs assessment of any technology that is necessary to align with Portrait of a Graduate | Ongoing | Tech dept. | Inventory PD Plan Survey of admins and staff |
| Coordinate with Business Office and Buildings & Grounds | Ongoing | Tech Dept. communicate with the Director of B&G | Project 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. By doing so we will increase the rigor of each and every academic area.

Equitable Access

The District is committed to providing equitable access to all of the students. During the pandemic, the District made great strides in providing equitable access. The District now owns 20 MIFIs that work off of cell phone towers. We provide these to families that may not have Internet at home. We identify these families via surveys as well as through informal routes like our ENL providers, guidance counselors, and other mental health support staff.

We also are currently more than 1:1. Meaning the District currently has more devices than students. In grades 5-12, the students take these devices home and whenever we have to quarantine a child, we also allow our K-4 students to take the Chromebook home.

We also have improved our communication with families that don't speak English in three very powerful ways.

1. We have partnered with our autodial company that does our community blasts as well as our Student Information System so that all email blasts go out in the language that the family has identified as the language they are most comfortable receiving messages.
2. We continue to use the written translation service through our local BOCES. We use this service when we need to communicate with a smaller number of parents. We also have used this service so that forms that need to be filled out, are translated professionally. This includes all registration forms, athletic forms, and many others.
3. We have given access to the call in translation service to all of our teachers and administrators. This service is provided by our local BOCES and with enough notice, they can have a translator on the line that can speak to a parent in their preferred language.

Students with Disabilities

The District has made great strides in supporting our students with disabilities. The Director of Pupil Personnel Services and the Assistant Superintendent of Instruction (who oversees the technology department) meet at least weekly to discuss current needs. Some recent enhancements that have taken place are the addition of FM systems for most K-2 classrooms, an investment in iPads when deemed appropriate for certain students, and a strengthening of the AIS/RTI process that the Director of PPS oversees.

The District does look at all the data that the instructional technology tools generate to provide a full and rich picture of the student along with teacher input. This past summer, the Director of PPS put together a very thorough document that lays out how the data can be used to inform instruction. The co-creators of the document were teachers, special educators, consultants, and literacy specialists. It will be used as a roadmap so that the instructional technology can be utilized in very powerful ways to help all of our students but especially students with disabilities.

Staff Plan

OVERVIEW OF HARDWARE

The classrooms at the elementary level have access to Chromebook carts.

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 Chromebooks handed out to each student and 5 extra chromebooks in each room.

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/wall unit for every classroom
- All classrooms equipped with Interactive TV and document cameras
- 4 network printers available for school-wide use
- Xerox copier available- Classrooms computers are connected to the Xerox
- All classrooms equipped with Cisco phones (VOIP)
- Wireless access points provided in each room and for the outdoor classrooms.

Sanfordville 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/wall unit for every classroom
- All classrooms equipped with Interactive TV and document cameras
- 4 network printers available for school-wide use
- Xerox copier available- Classrooms computers are connected to the Xerox
- All classrooms equipped with Cisco phones (VOIP)
- Wireless access points provided in each room and for the outdoor classrooms.

Warwick Valley Middle School (5-8)

- All instructional areas connected to the Internet
- Classrooms have an average of one desktop computer
- All classrooms equipped with Interactive TVs and document cameras
- 7 network printers available for school wide-use
- Xerox copiers available
- 1 computer laboratory that
- All classrooms equipped with Cisco phones (VOIP)
- Wireless coverage throughout including in some outdoor spaces
- All students have Chromebooks and there are 5 extra Chromebooks in each classroom.

Warwick Valley High School

- All instructional areas connected to the Internet
- At least one desktop computer in each classroom
- All Classrooms have Interactive TVs and all have document cameras
- 6 network printers available
- Xerox copiers available
- 5 computer labs (4 PC and 1 Mac Lab)
- Library media center has 1 lab
- All classrooms equipped with Cisco phones (VOIP)
- Wireless access throughout and in some outdoor spaces
- All students have Chromebooks and there are 5 extra Chromebooks in each classroom.

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 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 2022-23 | PROJECTED 2023-24 | PROJECTED 2024-25 |
|--|----------------------|----------------------|----------------------|
| Network hardware (Switch, SAN, controller) | \$200,000.00 | \$200,000.00 | \$100,000.00 |
| Computer hardware (Interactive TVs, orderly replacement and refresh of Chromebooks and PCs and other hardware purchases as needed) | \$200,000.00 | \$200,000.00 | \$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) | \$ 700,000 | \$ 700,000 | \$ 700,000 |
| Purchased services, (VCenter, SAN, Active Directory upgrades) | \$ 400,000 | \$ 400,000 | \$ 400,000 |
| Equipment Repair | \$50,000 | \$50,000 | \$50,000 |