

Maryvale School District

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Three-Year Technology Plan

2020 – 2023

Maryvale School District

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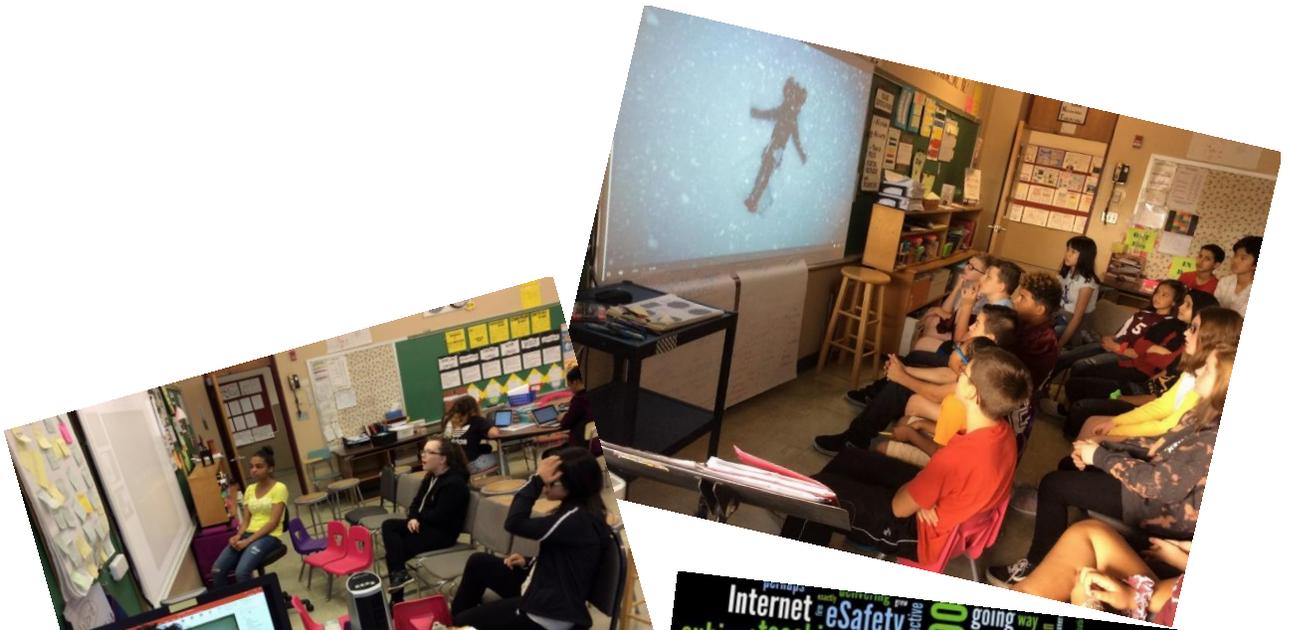
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TECHNOLOGY PLAN AT-A-GLANCE

In order to support the Maryvale Union Free School District's 2019-2024 Strategic Plan and help fulfill the District's commitment to creating a positive environment that provides a multitude of opportunities to enrich the lives and emotional and physical well-being of all, Maryvale is seeking to update its Technology Plan. This new Technology Plan seeks to complement and support Maryvale's Strategic Plan by focusing on improving communication, the social-emotional well-being of our students, staff and families and the high academic standards and expectations we place upon all of our students.



Maryvale School District
Growing Smarter and Stronger Together

Goal 1: Increase effective **communication** practices district wide
Goal 2: Grow as a school community that supports **District Wellness**
Goal 3: **Learning and Achievement:** Increase academic achievement for all students

Maryvale School District is committed to balancing student learning between engagement strategies, differentiation, and technology integration. Through adaptive and flexible learning environments, Maryvale students become

"We want to encourage a world of creators, of inventors, of contributors. Because this world that we live in, this interactive world, is ours."

Ayah Bdeir

responsible, ethical and proficient users of technology. The goal of this

Technology Plan is to build upon past successes. In the future, our goal is for students to have immediate, consistent, personal access to technology and the skills needed to improve academic achievement.





Instructional Technology Empowering Every Student to:

Take responsibility for their own learning using technology.

Communicate using a variety of media and formats.

Access and exchange information in a variety of ways.

Compile, organizes, analyze, and synthesize information.

Draw conclusions and make generalizations based on information gathered.

Use the information and select appropriate tools to solve problems.

Know content and be able to locate additional information as needed.

Become self-directed learners.

Collaborate and cooperate in team efforts.

Interact with others in ethical, honest, and appropriate ways.

The overriding intention of any school district's technology plan is for that plan to act as a guide so that technology may positively affect instruction and thereby contribute to the overall success of students. In recent school years, Maryvale has made tremendous strides in putting together a robust and agile information technology infrastructure. These advances have helped facilitate the seamless integration of technology into all facets of teaching and learning.

Maryvale Schools intends to undertake a number of aggressive initiatives to provide our stakeholders the most comprehensive and innovative technology experience possible.

- Strengthen communication between administration and staff
- Increase student access to innovative STEM technologies
- A push for more content to be available via mobile devices
- The feasibility for increasing at-home access to district electronic resources
- Strengthen social media outreach and other forms of electronic communication
- Leverage Chromebooks to share information with students
- Increase student engagement to improve academic outcomes



— Jennifer Fleming



- Use technology to create and implement high-level learning opportunities through multi-tiered systems of support

This Technology Plan, along with the planning processes behind it, has relied on the guidance of District staff and stakeholders as well as a number of documents; most notably: **National Educational Technology Plan**, The standards established by the **International Society for Technology in Education (ISTE)**, the **New York State Smart Schools Bond Act**, and local planning and reform efforts – most notably the recently adopted Maryvale School District Strategic Plan.

New York State Smart Schools Bond Act

The New York State Smart Schools Bond Act was passed in the 2014-15 Enacted Budget and approved by New York State voters in a statewide referendum held during the 2014 General Election on Tuesday, November 4, 2014. The Smart Schools Bond Act (SSBA) authorized the issuance of \$2 billion of general obligation bonds to finance improved educational technology as well as infrastructure to improve learning and opportunities for students throughout New York State. This funding is specifically earmarked for educational technology and school safety upgrades. Maryvale Schools qualifies for approximately \$1.3 million from this Smart Schools Bond funding.



The first step for all districts applying for SSBA funding is to submit an Instructional Technology Plan to the New York State Education Department for review. Once that technology plan is in place, Districts may go through the process of creating and submitting a Smart Schools Investment Plan (SSIP) to NY State. The SSBA requires that a State Review Board review and approve each districts’ SSIP before any funds are made available. If approved, SSBA projects will be fully reimbursable, but districts need to spend the money upfront before being reimbursed. This Technology Plan is a first step towards the planning effort to secure SSBA funding.

“What are students fascinated by that might suggest a way into some of the material they need to learn?”

Dr. Martha Stone Wiske

As you read this plan, it’s critical to understand that **nearly every project initiative that is illustrated within will be dependent and reliant upon technology procured with Smart Schools funds.**

Whether it is student devices, STEM technology, home connectivity, Audio Visual enhancements, or mobile learning, all of these projects will rely on the funding provided by the State. Simply put: Maryvale School District will not be able to fulfil the promises within this Technology Plan without a successful effort in securing this SSBA funding.



Projects that Maryvale School District are considering financing through Smart Schools funding include:

- Increased access to STEM technologies to support Project Lead the Way and other District learning initiatives
- Improved Audio/Visual technologies to improve student learning outcomes
- Improve at home connectivity to District electronic resources

Maryvale Schools Technology Plan – Supporting the Strategic Plan

*The Technology Plan seeks to support the **3 major goals and objectives** of the **Maryvale School District Strategic Plan**, and encourage the major benefits and objectives of information technology for Maryvale stakeholders.*

Goal 1: Increase effective communication practices district wide

Objective: Create systemic and consistent methods to promote communication with and between stakeholder groups.

Strategy 1a: Use email to delivery building specific staff communications on a consistent basis

Strategy 1b: Leverage hallway monitors for continuous district and school specific bulletin announcements

Strategy 1c: Archive communications on website for staff and community

Strategy 1d: Integrate Facebook and Flyer News for easier parent/community access

Strategy 1e: Expand quantity and type of content on Facebook to increase communication

Strategy 1f: Use electronic tools such as Thought Exchange to capture and aggregate like information from staff and students to elicit feedback and aid in the decision making process

Strategy 1g: Leverage Chromebooks to send targeted messages to students

Strategy 1h: Utilize current district/building calendars on District website and on hallway monitors

Strategy 1i: Use Google calendar integration to optimize use on smartphones

Strategy 1j: Introduce student produced daily video announcements

Strategy 1K: Increase utilization of existing electronic forms of communication such as Blackboard Messenger





Goal 2: Grow as a school community that supports District wellness

Objective: Embody and cultivate an environment that provides all stakeholders of the district with support for social, emotional, and physical health and wellness.

Strategy 2a: Use electronic tools such as Thought Exchange to capture and aggregate like information from staff and students to support social, emotional, and physical health and wellness

Strategy 2b: Utilize current district/building calendars on District website and on hallway monitors to inform students and parents on upcoming workshops and “Town Hall Meetings”

Strategy 2c: Use of electronic survey tools to assess school climate to improve District wellness

Strategy 2d: Utilize electronic collaboration tools to improve the communication

Strategy 2e: Increase utilization of the District website and Blackboard Messenger to clearly communicate district-wide wellness policies.

Goal 3: Learning and Achievement: Increase academic achievement for all students in Maryvale UFSD

Objective: Build a culture of learning and professional development that is reflective of the student population.

Strategy 3a: Provide professional development, concrete curriculum alignment and mapping for tools such as NearPod, IXL, STAR, Castle Learning, and Zearn

Strategy 3b: Incorporate the use of technology and digital citizenship into daily teaching practices.

Strategy 3c: Explore Common Sense Media certification to support digital citizenship

Strategy 3d: Sustainable professional development and coaching as well as concrete curriculum alignment and planning to incorporate instructional technology resources

Strategy 3e: Leverage technology to engage students while communicating with the teacher in real time with authentic formative assessments

Strategy 3f: Use of 1:1 Chromebooks for student production of innovative content with an emphasis on problem solving and decision-making

Strategy 3g: Explore the adoption of micro credentials for technology coaching from entities such as Digital promise

Strategy 3h: Leverage Thought Exchange to better aggregate data to aid in the decision making process

Strategy 3i: Increase opportunities for peer-to-peer learning walks to observe best practices in instructional technology integration

Strategy 3j: Enhance and expand access to GradPoint for high school students

Strategy 3k: Increased use of assessment data to proactively address problem areas



Instructional Technology Support of Rigorous Academic Standards

Using the International Society for Technology in Education National Educational Technology Standards (ISTE, NETS), and the New York Technology Standards, technology will be integrated in all K-12 curricula. Instructional stakeholders will contribute to developing and updating technology integrated curriculum maps and resources. Teachers will regularly integrate technology as defined within their respective curriculum. To improve the academic achievement, including technology literacy of all learners, an integrated curriculum will include the following teaching and learning strategies:



- Students construct knowledge through a variety of processes, such as social networking, human interaction and differentiated learning environments
- Students will select from a variety of tools, processes, and information sources that will enhance their own learning
- Staff and students will engage in responsible and appropriate behaviors when using technology
- Technology tools will be made available anywhere, anytime for and by everyone, and will help to eliminate barriers for all learners
- Curriculum will be designed to offer more global opportunities for creative and collaborative problem solving
- Students will access a collaborative global community of learners, using tools such as online learning, podcasts, wikis, social networking, etc
- Innovation will be practiced in partnership with community resources such as local industries to keep current with global technology trends

Primary School students will:

- Use the mouse, keyboard, and remote control devices to successfully operate computers, DVD players, and various other types of technologies
- Demonstrate the ability to log into the network with a personal ID, run network software, and respect privacy of all other users by only using their personal ID.
- Practice responsible use of appropriate technology and curriculum related software
- Understand and practice safe Internet usage
- Communicate technology ideas using developmentally appropriate and accurate terminology
- Publish different forms of writing using digital tools and media-rich resources



Intermediate and Middle School students will:

- Practice responsible use of appropriate technology and curriculum related software
- Apply productivity/multimedia tools and peripherals to support productivity, group collaboration, and learning throughout the curriculum
- Design, develop, publish and present products using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom
- Select and use appropriate tools and technology resources to collaboratively accomplish a variety of tasks and solve problems
- Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources while working on solutions to real world problems
- Practice and demonstrate exemplary digital citizenship principles as part of all Internet research and technology based classroom projects
- Use Cloud based tools as a part of classroom instruction and Internet research where their appropriate use will enhance learning



High School students will:

- Make informed choices among technology systems, resources and services to meet the need for collaboration, research, publication, communication and productivity
- Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning
- Collaborate with peers, experts and others to contribute to a content related knowledge base by using technology to compile, synthesize, produce and disseminate information, models and other creative works
- Demonstrate and advocate for legal and ethical behaviors among peers, family and community regarding the use of technology and information when selecting, acquiring and citing resources
- Select digital tools and resources for use in real world tasks and justify their selection based on their efficiency and effectiveness
- Employ curriculum specific simulations to practice critical thinking processes
- Create media rich presentations for other students on the appropriate and ethical use of digital tools and resources
- Research, collect data, and create a curriculum related multimedia project
- Conceptualize, guide and manage individual or group learning projects using digital tools with teacher support
- Communicate about technology using developmentally appropriate and accurate terminology
- Use technologies for research, problem solving, self-directed learning and collaborative learning activities
- Evaluate the accuracy, relevance, appropriateness, comprehensiveness and bias of electronic information sources



Support for Students with a Disability

Educators in Maryvale Schools use technology to empower students with disabilities and give them access to the general education curriculum. Special Class teachers use software programs such as iRead, System 44, and Read180 to differentiate reading instruction. All Special Education teachers have access to an Elmo and Smartboard to help aid in accommodating visual learners. When indicated on a student's IEP, students will have access to individual devices such as but not limited to, iPads, Chromebooks, FM systems, Mount-It laptop stands, standing desks, Kinesis Laptop Lifter, voice to text programs.

Staff Professional Development – Supporting Rigorous Academic Standards

Effective teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning and to develop knowledge and skills identified in the National Educational Technology Standards for students. Professional development activities will be provided for teachers to design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity. Staff Development programs will help teachers develop technology-enriched learning environments that offer options for diverse learning styles using digital tools and resources. Embedded on-line module based learning for staff will assist in building capacity within the building. Using the embedded daily PLC time will support this type of learning. Training will also provide teachers and students with multiple and varied formative and summative assessments aligned with content and technology standards to be used to inform learning and teaching.

The district utilizes the Common Set of Learning Objectives (CSLO) services through Erie 1 BOCES to work with teacher groups, and administrators to enhance their learning of new technologies, technology rich lessons and curriculum based resources. Additional opportunities for professional development are offered on Interactive Whiteboard/SMART activities and resources, eSchoolData, STAR testing, IEP Direct, etc. Professional development will be scheduled in order to provide immediate implementation and application of the learning in order to impact instructional and learning outcomes.

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. The district is using a software program to assist the teachers in developing their professional growth plans. The teachers have been trained on the use of My Learning Plan and My OASYS. Using these programs, each teacher is required to identify at least one professional goal in one of the three initiative areas. Professional learning opportunities are initiated at the Superintendent's Conference Day, which is regularly scheduled in March. In addition, through the new PLC structure, the professional practice with technology integration will become a key initiative across all content areas.





The Maryvale School District is committed to balancing student learning between engagement strategies, differentiation, and technology integration. Through adaptive and flexible learning environments, Maryvale students become responsible, ethical, and proficient users of technology. Students will become active learners in digital citizenship and the importance of this practice across all avenues of technology. In the future, our students will have immediate, consistent, personal access to technology and the skills needed to improve academic achievement.

When we are successful integrating technology, all students will use technology to gather information, solve problems, share their expertise, and develop the life skills needed to function in the 21st century.

Maryvale School District – Infrastructure, Hardware, Technical Support and Software

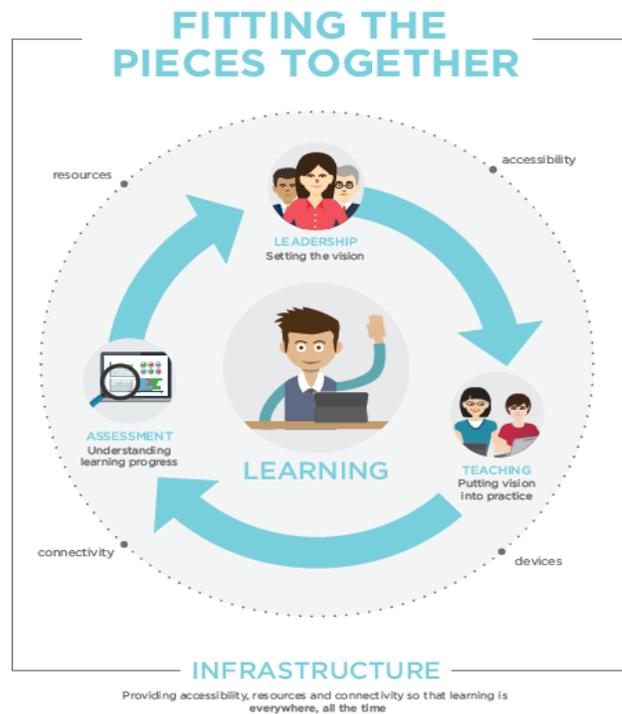
Network Infrastructure

Maryvale School District currently has standalone file and data servers and servers that also host virtual machines that support various functions, including Library Services, Microsoft Active Directory, and Administrative data. Teacher and student data are hosted in the cloud.

The District has a robust network infrastructure to support business operations and teaching and learning. The main Maryvale data closet consists of the entry point from the Internet, which connects the entire district infrastructure through data closets with 10GB connections between closets and buildings. Avaya data switches in each closet feed wired and wireless network connections throughout all school buildings thereby providing internet connectivity for both desktop computers and mobile devices such as iPads, Chromebooks, and laptop computers. Strategic use of E-rate funding has allowed Maryvale Schools to upgrade and maintain vital network systems.

Internet Connectivity

The District currently takes part in the WNYRIC Broadband Service. This service is connected via fiber to the Western New York Regional Information Center (WNYRIC) for internet and other data services. The District complies with the Children’s Internet Protection Act (CIPA) and participates in WNYRIC filtering service. All workstations in the district are filtered through this service.





Classroom Computers

Maryvale currently has 4,075 computers in the district. About 725 of these computers are Windows 10 and 3,350 are Google ChromeOS. The district is 1:1 from grades 1-12. Kindergarten classrooms have access to Apple iPads. In addition, all classrooms are equipped with interactive Smartboards.

Computer Labs / Media Centers

11 computer labs are disseminated amongst Maryvale's four school buildings. The distribution is as follows:

- Primary School – 1 lab
- Intermediate School – 2 labs
- Middle School – 4 labs
- High School – 4 labs

Each lab contains between 25-28 computers, instructor multimedia presentation monitor, high speed network printer, and access to an interactive Smartboard.

Technology Staff

Maryvale's technology staff currently consists of one full time IT Support Director, three full time IT technicians, one of which is also the District's SIS (eSchooldata) data technician.

Instructional Software

Maryvale Schools has an extensive collection of instructional software to support teaching and learning. Software titles include:

- **Google Education Suite** – Communication and collaboration tools for teachers and students
- **NearPod** – Instructional platform for collaborative learning
- **Zearn** – Math skills software for K-5
- **Reflex Math** – Math skills software for K-5
- **Castle Learning** – Review and assessment software for all content areas and grade levels
- **Adobe Creative Suite** – Adobe Apps for Education
- **Print Shop** – Teacher and student creativity software
- **Pearson Words Their Way** – Word study and spelling software
- **Destiny** – Library Media Center inventory software
- **Raz Kids** – Reading software
- **IXL Math** – Math and ELA skills software for K-5
- **Star** – Student assessment software





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