

Comprehensive Technology Plan

Teays Valley Local Schools Vision, Goals and Plan for Technology

This technology plan is the current best representation of the district's vision, goals and objectives for instructional technology. As such, it is a living document that will always be under revision and adjustment. This on-going, constantly updated plan, with its associated timelines and priorities, provides guidance for decision making and budgeting funds. This plan for the use of technology is designed to have a significant positive impact on teaching and learning in the Teays Valley School District.

A wide range of additional information was used in the development of this plan. This information included meetings with teachers, students and administrators, reviews of research, and other technology planning literature such as the federal E-Rate planning guidelines, the ISTE planning tools, and the Future Ready Schools planning tools.

Through this process we established vision, mission and belief statements, which led to the corresponding implementation plan for the next phase of technology training and acquisition. The vision process will establish the district's expectations, appropriate measures of implementation success, and implementation milestones for the upcoming school year, and existing and emerging technologies to support the goals of the timeline.

The following questions were address as part of the vision and planning process:

- How do we see technology impacting and aligning to our vision of a successful Teays Valley graduate (Profile of a Graduate)?
- How do we want students to use digital tools?
- How do we want teachers to use digital tools?
- What skills do we want students to be able to have that would be improved with technology?
- What do teachers want to be able to do, that they can't currently, that would be improved with access to additional technology or devices?
- What do we want education to look like in our district five years from now? How would it look differently from the way it looks now?
- What concerns do we have about the use of technology in the classroom? Are there ways in could impact education in a negative way?

The plan was developed from the strong belief, supported by research, that technology can significantly enhance the learning environment and improve teaching and learning. Furthermore, technology is seen as a critical component of our efforts to adequately prepare our students.

Vision for the Role of Technology in Teaching and Learning

Teays Valley Local School is committed to providing students with a technology rich learning environment to ensure that all students will have the opportunity to develop the 21st century skills necessary to be productive citizens in an information-driven, global society.

Goals for the use of technology:

- **Make learning a more personal, engaging and rigorous experience**
- **Integrate technology into the curriculum to increase academic opportunities such as Blended Learning, Problem-Based Learning (PBL), STEM and Career and Technical Education (CTE)**
- **Increase 21st century skills - specifically critical thinking, collaboration and communication**
- **Improve student achievement and academic growth**

Blended Learning

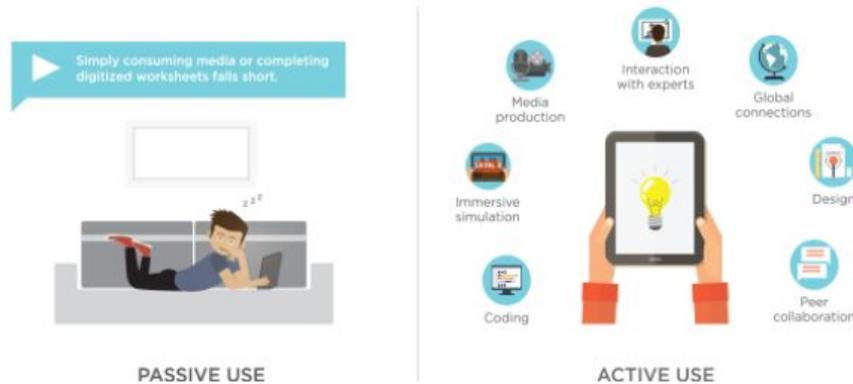
The goal of blended learning is to combine the best teaching practice from a traditional classroom and those from a digital classroom. The teaching strategies should align to the goals of the learning objective. Some lessons may require the use of technology, some lessons may not require technology, while some lessons may need technology for only a small part of the lesson. We do not believe that students should spend 100% of their day online. The ultimate goal is to utilize the proper tool to enhance the curriculum and meet the instructional needs of the students.

Horn and Staker (2014) define blended learning as “any formal education program in which a student learns at least in part through online learning, with some element of student control over time, place, path or pace.” Blended learning is a big umbrella term that covers many different types of models, but the goal is to combine active, engaged learning online with active, engaged learning in the classroom to give students more control over those four elements of their learning.

We believe that when successfully implemented, blended learning enables the hallmarks of best teaching and learning practices that align to Teays Valley’s Vision of High Quality Instruction. It shifts control from the teacher to the students, allowing students to become drivers of their learning.

Passive vs. Active Use of Technology

We believe that students should be using technology as a tool to engage in creative, productive, life-long learning rather than passively consuming content.



Source: From “Section 1: Engaging and Empowering Learning Through Technology,” by the U.S. Department of Education, Office of Educational Technology, 2015. Available: <http://tech.ed.gov/netp/learning>

We believe that the successful infusion of technology depends on the right blend of teachers and technology. When students have anytime/anywhere access, particularly in environments with 1:1 student-to-device ratios, digital experiences can be blended into the learning environment to extrapolate concepts and maximize learning opportunities. In these environments, students can access the “right blend” of direct instruction and technology-accelerated learning. Student voice and choice play an important role while the teacher gives the needed level of direct support.

Technology use is **most productive** when experiences combine the “structured learning of information with collaborative discussions and project-based activities that allow students to use the information to solve meaningful problems or create their own products, both individually and collectively” (Darling-Hammond et al., 2014, p.15)

Displaying lesson notes on an interactive whiteboard, answering multiple choice questions in an online platform, typing documents that are saved to the cloud, reading a textbook on a mobile device, or looking up facts online may make certain tasks more efficient, but they do nothing to challenge or redefine an outdated, traditional pedagogy. Leveraging technology to create a more teacher-centric environment is detrimental to student learning and undoubtedly fails to create the personal and authentic learning opportunities student need. We believe that effective teachers use technology as the right tool, at the right time, to create the needed access and opportunity.

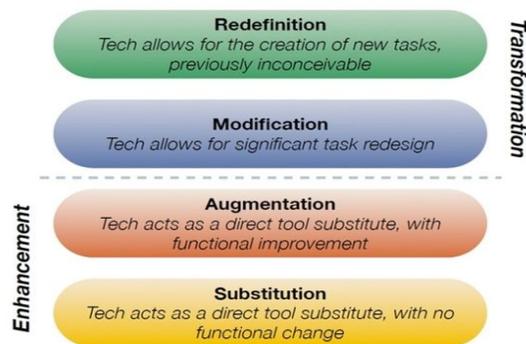
Connection with Teaching and Learning

SAMR Model

The SAMR model can be used to assist teachers through the process of integrating technology into their classrooms and using it in powerful ways.

SAMR is a model designed to help educators infuse technology into teaching and learning. Developed by Dr. Ruben Puentedura, the model supports and enables teachers to design, develop, and infuse digital learning experiences that utilize technology. The goal is to transform learning experiences so they result in higher levels of achievement for students.

The Substitution Augmentation Modification Redefinition (SAMR) model offers a method of seeing how computer technology might impact teaching and learning. **It also shows a progression that adopters of education technology often follow as they progress through teaching and learning with technology.**



Digital Curriculum and Content

Teachers and students have access to a variety of digital curriculum and content. Digital curriculum can replace the delivery of a lesson. Digital curriculum can be a simple entry point for modifying lesson delivery in a blended learning classroom as teachers can replace existing offline resources with adaptive, multimedia curriculum, they can move from basic substitution levels of technology integration to truly redefining learning.

Digital content allows teachers to provide differentiated instruction by offering multiple resources, learning pathways, and outcomes for students. As teachers begin to use digital tools to supplement instruction via technology, they spend less time developing their own instructional content and more time building engaging learning experiences.

School and Classroom Environment

Our goal is to develop students who can work together, engage in respectful discourse, problem solve and collaborate in both physical and virtual spaces. Learning cannot be personal and authentic if every student is an island in the physical space. Over time, schools and classrooms will need to transform from an industrial model (desk in rows and teacher in front) to one that is learner-centered, is personalized and leverages the power of technology. We believe that if we want creativity, collaboration, ingenuity, authenticity, and multifaceted approaches to learning, then the spaces in which these experiences occur must be relative.

Ensuring Access to Devices

With classroom teachers scaling up the use of devices in their classrooms and a districtwide focus on preparing our graduates for the demands of the 21st century workforce, the district began to look at long-term plans to increase access to devices for our teachers and students in the summer of 2017.

In the summer of 2017, the district began to study the possibility of implementing a 1:1 technology plan in grades 6-12. The study focused on several key points: technical feasibility, legal consideration, phase in options for the plan, operations of the program, and scheduling.

To address the technical feasibility of the program two components needed to be addressed. First, the network capacity needed to be upgraded to accommodate increased usage. E-rate funding will be utilized to update the switches in all eight buildings during the summer of 2018 prior to increasing devices. Second, access points will be updated and/or added in all eight buildings to provide connectivity.

Financial feasibility looked at the possibility of being able to sustain a 1:1 program over time. Currently money allocated in the capital spending plan and the technology budget can be used to implement the program.

Multiple plans were considered in planning to increase devices in the classroom including Bring Your Own Device (BYOD) and purchasing additional carts. In the end a 1:1 program where devices are purchased for a 6th and 9th grader was determined to be the most feasible long term. A 6th grader will keep their same device for three years and the 9th grader will keep their same device for four years. Currently the district is developing a plan to best reallocate current devices that have life-span and assign new devices to students.

The final step is to look at all aspects of scheduling support for the new program. Managing the technical needs, student responsibility, repairs, charging of devices, ensuring extra devices of when devices are down will all been considered.

Two Year Device Roll-Out Plan

- Purchase a new Chromebook for each 6th and 9th grade student each year
- The 6th grade student “keeps” the device for 3 years. The 9th grade student “keeps” the device for 4 years.
- The district will assign a device to a student their 6th and 9th grade year. Students will receive their device sometime within the first two weeks of school. That same device will be collected in the spring and reissued to them each fall. The middle school student will have the same device their middle school career and the high school student will have the same device for their 9-12 career.
- Because devices have a 4-5 year life span, all devices in good working order will be collected from 8th and 12th graders and rolled down to the elementary buildings.
- In addition to roll-down devices, two sets of Chromebooks (60 devices) will be purchased for each elementary building each year.
- The district will provide parents the opportunity to purchase a Technology Protection Plan that covers repair or replacement of devices. This plan will be explained in parent workshops and communicated by the district each fall.
- A student run help desk will be established to help support in repair of the devices
- For the 18-19 school year, current middle school devices will be assigned to 7th and 8th graders making the middle school 1:1 for the 18-19 school year and beyond.
- For the 19-20 school year, 10th grade students will have devices from their 9th grade year. 9th grade students will get new devices. Available devices will be assigned to 11th and 12th graders making the high school 1:1 for the 19-20.
- This plan ensures that all students in grades 6-12 will be 1:1 at the start of the 2019-2020 school year.

Definitions

Learning Management System (LMS) - a software application for the administration, documentation, tracking, reporting and delivery of content.

Student Information System (SIS) - software system that handles student information such as scheduling, attendance and reporting