SHREWSBURY HIGH SCHOOL
Office of the principal

TO: Shrewsbury School Committee
FROM: Todd Bazydlo, Principal
                Shawna Powers, Director of Instructional Technology and Media Services
DATE: December 12, 2014
RE: Technology

Vision for SHS

The mission of Shrewsbury High School is to provide challenging, diverse learning opportunities; promote creativity and independent thinking; and empower students to become capable, caring, active contributors to the world in which they live. In order to prepare the students of Shrewsbury High School to be college and career ready in this digital age, it is our obligation to provide them with current tools and the training to use them effectively. Modern technology offers many powerful tools that can facilitate teaching and amplify learning at all grade levels. The use of these technologies at SHS will help ensure that our students are prepared with the skills needed for post secondary education, the military and/or the workforce. Portable electronic devices have become ubiquitous in our daily lives and indispensable throughout business and industry. It is essential that we put these devices into our students' hands at school and teach them how to use these devices productively and responsibly in the context of curriculum-based projects that involve opportunities for collaboration and innovation.

Outside of school, students regularly use devices to conduct research, gather information, and to communicate. Using current technologies for instructional purposes engages students in ways that traditional textbooks simply do not. By augmenting instruction with mobile devices, teachers can engage students in relevant real life complex problem solving that requires innovative analysis and insight. When students experience the relevance of their schoolwork to the real world, they are likely to become more self-directed and intrinsically motivated. The use of technology can also create efficiencies for both students and teachers, who can then use the time gained by delving deeper into learning.

In order to maximize the efficacy of this initiative, we will build upon the positive culture and strong relationships between students and faculty to inspire and cultivate confidence, curiosity and persistence and a desire for knowledge to expand students' critical thinking skills. The faculty must use student assessments as feedback about the impact of their pedagogy on student learning and engage students in dialogue about student aspirations and progress. Using current technologies also benefits student learning by facilitating the differentiation of instruction and can help engage even the most reluctant learners. A 1:1 environment also provides students with multiple opportunities to research and explore topics of personal interest. In order to accomplish this, we must continue to focus on providing high quality instruction and continually reviewing student achievement data in order to improve teacher pedagogy and student learning.

Device Selection

As Shrewsbury High School prepares to implement a 1:1 device program for the 15-16 school year, Brian L'Heureux, Director of Information Technology; Todd Bazydlo, SHS Principal; Maureen Monopoli, Assistant Principal; and Shawna Powers, Director of Instructional Technology & Media Services, conducted research and site visits to area high schools that have implemented a 1:1 device program. The objective of the team was to develop a better understanding of the types of devices high schools are using and to make a recommendation regarding the type of device that will be most appropriate for Shrewsbury High School's 1:1 program. Below is a list of steps taken to develop a better understanding of the type of device that will be most appropriate for Shrewsbury High School:

- Members of the team conducted site visits and conference calls to area high schools to gather information about Chromebooks, laptops and iPads.
- Each site visit included an overview of the 1:1 program, classroom observations, and conversations with administrators, teachers, and students.
- Members of the team conducted online research on the 1:1 programs in other school districts we did not visit including three districts that utilize laptops and two districts that utilize iPads. The research garnered provided additional information that helped shape our recommendation.
- Team members observed classrooms at Oak and Sherwood middle schools.

Below is a chart listing the pros and cons of the three devices we considered for SHS:

Device	Pros	Cons
Chromebooks	• Mobility • Size • Cost • Built-in keyboard • Customization linked to account • Simple set-up • Can be set up to use Gmail and certain Google apps offline	• Camera limitations (one-way) • Main use is cloud-based computing • Can only store data online • Limited apps • Multi-tasking is less user-friendly
iPads with Keyboards	• Mobility • Size • Battery life • Can add on a removable keyboard and choose when to use it • Touch screen • Can write with finger or stylus • Camera (two-way with rear HD) that enables easy capture of photo or video	• Customization limited to individual device • More complex initial set-up

	• Vast array of apps that can be used offline • Simple multi-tasking • Accessibility features	
Laptops	• Mobility • Screen size • Peripherals • Built-in keyboard • Simple multi-tasking	• Cost • Battery life

Based on the team's site visits, observations, conversations, and research, we believe that the iPad is the appropriate device for the SHS initiative. We have seen evidence that the iPad enables teachers to develop lessons that not only provide students with access to unlimited information, but also enhances their learning with opportunities to collaborate, communicate, create, curate, and innovate. We believe that 1:1 access to iPads at Shrewsbury High School will enhance our students' development of the skills necessary to be productive members of our global society.

The iPad, with a durable case and keyboard, is a versatile and cost effective device. It has all of the features of a tablet combined with many of the features of a laptop for a reasonable price. It has a lot more possibilities to offer than the Chromebook without being at a significantly different price point. In our work with iPads at the middle and high school levels, we have found them to be durable devices that hold up well over time. Our colleagues in other districts have shared concerns about the durability, reliability, and lifespan of other devices.

The one limitation for iPad use at the high school level is the lack of an external keyboard. However, we believe we have found a robust keyboard case that would both protect the device and provide a keyboard large enough in size that it functions essentially as a small laptop. The need for an adequate keyboard has been expressed by many high school stakeholders and we see it as a critical element for the success of the program.

In some ways the functionality of an iPad is similar to the functionality of a Chromebook or a laptop. All three devices can be used to research online and to access Google apps for education. However, iPads are very versatile devices that can be used for many additional purposes for which Chromebooks and laptops are not yet capable. 1:1 access to this device opens up opportunities and possibilities that do not currently exist with other technologies.

It is important to note that many of our students and teachers are accustomed to using iPads in the classroom. Current eighth graders have been immersed in a 1:1 iPad learning environment since they were in sixth grade. Similarly, some of our high school teachers began working with iPads in their classrooms during the pilot program two years ago. At SHS we currently have iPad carts available for teachers in every wing of the building and these carts are in high demand being used nearly every period of every day. Bringing the 1:1 model to our high school will enable the digital conversion of our approach to education that is necessary for truly preparing our students well for the world that awaits them.