School Matters

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Welcome to this Special Insert section to our School Matters newsletter. The role of technology in education, much like in the rest of the world, has great potential. We have worked very hard to develop plans that incorporate technology as a tool we can leverage to enhance student learning. During the last four years, we have been able to implement and grow one-to-one device access for students in 5th through 8th grade. This endeavor has enhanced the way many courses are taught at those levels. I am continually amazed at what students and staff are capable of when given innovative tools. Keep reading to learn more about the ways students can access technology in Kimberly schools.

-- Bob Mayfield

Students Access to Technology: A Tool to Enhance Learning

Last school year, Owen P. and Brady F. created a presentation for their writing class about perseverance that in 176 presentation slides runs like stop-motion animation to highlight their main points. Their classmate, Jamison G. created a research project that, while technically a presentation of slides, functions like an interactive website with graphic hotspots that are links to important information on his topic. Both presentations have a common thread: they were created by fifth grade students at Mapleview Intermediate School.

Students in both of the Kimberly Area School District's intermediate schools, Mapleview and Woodland, are fortunate, as fifth grade teacher Brittany Janssen describes it, to have one-to-one technology use for their entire school day. While just four years ago students would have had access to computers for research and projects, it would have been one computer that several students shared. The students would have handwritten their reports and drawn or collaged imagery and graphs to complement their writing.

One-to-One Pilot

In the 2012-13 school year, that all changed for sixth grade students across the District. The sixth graders piloted one-to-one access to a Chromebook throughout their entire school day. It was the first ever one-to-one technology accessed by an entire grade in the Kimberly Area School District. During the pilot, educators and students found that they could perform research much quicker, use images in creative and interactive ways, and type their reports more efficiently than handwriting them. By having access to a device, the students moved from being a consumer of digital knowledge to also being producers of it. Educators began to use the devices to enhance their curriculum and increase efficiencies in classroom management.

Fifth graders Bret S., Candra Y. and Cailin S. at Mapleview Intermediate School use Chromebooks to write a personal narrative in Stacey Vandenberg and Brittany Janssen's class.

The feedback during the pilot was overwhelmingly positive, according to Brittany Janssen. "When we started the pilot year with sixth grade, I think some parents were sitting back and waiting to see what would happen and how it would work," said Janssen. "About halfway through the year, around parent conference time, we had the students do projects to demonstrate how they were using the Chromebooks." The parents were shocked by what their child was able to accomplish with the technology. "I had multiple parents say things to me about how computers and technology are the future and how they felt it was a better experience for their child to learn to use those tools at 10 and 11 years old.'"

Based on the pilot's success, the Board of Education approved providing both the fifth and sixth grade students at the intermediate schools one-to-one access to Chromebooks for the 2013-14 school year. As those students progressed to J.R. Gerritts Middle School (JRG), they were able to continue using the Chromebooks while new ones were added for incoming

intermediate students. This school year, students from 5th through 8th grade now have one-to-one access to Chromebooks for their entire school day. "I think the biggest difference is that we are able to differentiate so much better for the students than when we didn't have as much technology available," noted Janssen. "We're better able to identify and meet the unique needs of each student because they each learn differently."

Expansion to JRG Middle School

Last school year was the first year of implementing one-to-one technology at J.R. Gerritts Middle School for 7th graders. While the incoming students had been using Chromebooks for two years at the intermediate schools, it was the first year for JRG teachers to be able to fully utilize one-to-one technology in their curriculum. And this school year marks the first year that both 7th and 8th Grade students have one-to-one access to technology for the entire school day. Chad Verboomen, who teaches 7th grade math and ACE Science, is also a technology coach at JRG. He believes the first year of having one-to-one access to technology largely increased productivity and efficiencies to the classroom. "What I've seen is that there's a progression when using a new technology," said Verboomen. "At first, it's a productivity piece. Teachers get through content quicker and what the students can accomplish gets faster." He described it as a system of progress that is part of learning how to use a new technology. "The more familiar teachers and students get with the technology, the more we can move into content creation and using advanced tools in lessons."

One area that Verboomen found a dramatic increase in productivity was assessments of knowledge at the beginning of a class period. Students' understanding of math concepts can be instantly evaluated using a short quiz created using Google Forms. He uses conditional formatting that instantly color codes correct and incorrect responses to gauge the students' level of understanding. If most students seem to grasp the math concept, Verboomen knows he can do a quick lesson with the students who need help and then move on to the next component that builds on their knowledge. Conversely, if a large number of students seem to be missing a specific concept, he knows they need to work on that concept during class that day. This type of knowledge assessment in a class of 20 to 30 students used to take the teacher quite a bit of time to evaluate each student's quiz sheet. Now, with the use of Google Forms and the conditional formatting, it is an instantaneous assessment of knowledge.

JRG students Sarah H. and Kennedy Z. use Chromebooks to answer questions in a Google Form in Mr. Verboomen's math class.

The Plan for Student Access to Technology

In July of 2014, the Board of Education approved a three-year technology plan for student access. "Our vision in this plan is that the use of technology will become as seamless in learning as the use of paper and pencil," said Mike McDermot, Director of Information Technology for the District. We all experience the impact of technology on a daily basis at work and in our homes. "Technology will continue to grow and saturate all aspects of our lives, it is important that our children learn to take advantage of these tools in order to develop into self-directed learners that are effective, efficient and more likely to succeed in a career," said McDermot. To reach this state, the District is using a three-pronged approach to technology access based on grade levels.

Grades K-4
The District provides access to the appropriate computing devices as needed in the instructional process.

Grades 5-8
This school year, the District is providing a computing device to all 5th, 6th, 7th and 8th grade students. At the end of 8th grade, students will have the opportunity to keep their device and use it at the high school or purchase their own device that is best suited to meet their needs. Once the Chromebook becomes the personal property of the student it will no longer be maintained by the District.

Grades 9-12
Students are encouraged to BYOD (bring your own device). This allows students the opportunity to bring the technology they are most comfortable using. The device must have wireless connectivity and a web browser. They will connect to the District's free and filtered wireless network. The school will continue to provide limited access to computing devices on a check-out basis. Access to technology is provided during classes that are computer skill focused, such as computer science and video production.

The Future

As the District increases students' access and use of technology, staff training is coordinated to integrate the use of these tools throughout their lessons. The staff, like our students, are expected to become fluent in the use of digital tools and to achieve the vision described in the District's technology plan.

The vision is that staff and students will leverage technology in purposeful and meaningful ways to increase efficiency and improve our effectiveness as continuous, self-directed problem solvers. Using technology isn't the sole focus of student learning; technology is a tool that District educators use to enhance student learning.