

Log-on



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Mifflin County School District Technology Department

Issue 15

Technology Update

*by Kirk McMinn
Director of Information Systems*

Every year in May we take time to reflect on what we have accomplished over the past year. We usually tell you how many new computers we have installed, how many miles of cable we have laid, and how much faster the network is. This past year the District has invested more money into technology than in any preceding year. We have installed over 200 new desktop computers, 15 new servers, a Virtual Private Network, a firewall and we have hired a network administrator. But, this year the biggest impact wasn't from the amount of money spent on hardware or the number of machines that were installed. Surprisingly, the major impact was made by a small investment in monitoring software that showed us how our equipment was being used.

This new monitoring software seemed to take front stage over all of the projects that were completed this year. We could now see why server space was being eaten up and Internet bandwidth maxing out a few times a day. We were having these problems because the system was being used by students and staff as if it was their home computer. Users were spending much of their Internet time downloading music, movies, graphics, and game files into their personal folders on the servers. Students and teachers were actually sharing game files and giving each other access to their personal folders. It became a big problem when the Internet started to shut down during the afternoons and backup tapes were hanging on downloaded files, hacking programs and viruses. We started monitoring users more than ever to eliminate the technical problems and found numerous violations of the technology policies.



Originally, in our attempt to solve these problems, we issued warnings to users who had violated the technology guidelines. It is now our policy to direct all student violations to the principal involved and staff violations to the appropriate administrative supervisor. We have begun to see a change in attitude; users have started to realize that the school computer system is not their personal computer. Users can do what they want at home with little or no consequences but the same behavior at school is not acceptable. In April, for the first time this year, educational sites made it to the list of top twenty sites hit by District users, showing us that most of the staff and students now understand that the school computers can only be used for educational purposes.

This has evidently also been a problem across the state. In recent articles from the Department of Education, there were several teachers listed who were fired and lost their teaching certificates for violating computer policies. In most cases, they were using school computers to access pornography and, in one case, to solicit a student. We can't stress enough that faculty members should read and follow the District Technology Policy.

Next year we hope to implement a new student management system, cafeteria system and busing system. The District now relies on computers for almost all of its day to day operations. It is critical that we keep the network up and running all of the time. Teachers will start to interact with the student management system directly to enter grades and attendance. Parents will have the ability to log into teacher grade books and monitor the progress of their children. This will put additional stress on the data system and will demand that we thoroughly monitor data traffic.

It is important that everyone realize our computer network is for school use and cannot be used in the same way you use your home computer. As the educational computer applications expand, the computer network will become more complex and it will become even more important to follow the District Technology Policy.



Indian Valley Middle School Students attend PAECT Student Showcase

The Student Technology Showcase, an annual event sponsored by the Pennsylvania Association for Educational Communications and Technology (PAECT), is held in the East Rotunda of the Capitol building in Harrisburg. The Showcase Planning Committee consists of Karen Galbraith, Kirk McMinn and Patricia Pavlik, PAECT and MCSD staff members.



The showcase format gives students an opportunity to display their talents, share their work, and receive recognition for their efforts. These activities illustrate the innovative and unusual ways technology is being used in Pennsylvania schools. Throughout the day, students demonstrate and explain the projects they have created. In addition, many groups meet with their legislators and tour the Capitol Building. PAECT originated this program as part of its mission to promote

the use of technology in teaching and learning. This event involves students, faculty, and parents from schools around the state, as well as legislators, other government officials, and PAECT members.



Students from 16 elementary, middle, high schools and technical schools across Pennsylvania were involved in the showcase. Their projects included the creation of digital movies, online courses, school web sites, student broadcasting stations, multimedia presentations and computerized robots.

This year students from Indian Valley Middle School and their advisors, Edna Snook and Julie Hannan, participated in the showcase. Their presentation, **FTD: Floral Technology Design**, is a component of **STAND (Student Transition Advancing in New Directions)** and sponsored by a state grant from PATTAN. Teams of seventh grade students owned and ran their own car cleaning and gardening businesses, known as **Dirt Busters**, and **Freaky Deeky Fabulous Flower Frenzy**.



Each business hired an advertising/bookkeeping agency and students competed for these positions. Each group was composed

of a print media and a broadcast media specialist, a costume/uniform designer and a bookkeeper. These "experts" designed and showcased their products (business cards, posters, newspaper advertisements, TV commercial script, radio commercial scripts, uniform logos, customer tracking database systems, and a bookkeeping system) in a persuasive PowerPoint presentation during a school assembly. The first and second place teams attended the Student Showcase.





Cool Sites!

► Illuminations

<http://illuminations.nctm.org/index2.html>

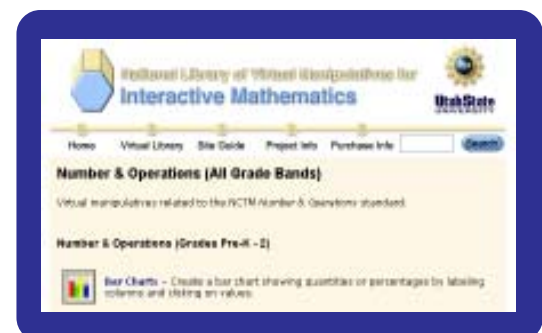
This site was created by the National Council of Teachers of Mathematics (NCTM) and its goal is to provide the best possible online math resources for pre-kindergarten to grade 12. It is organized into five main sections: i-Math Investigations, Reflections on Teaching, Selected Web Resources, Internet-Based Lesson Plans, and Math*lets. **i-Math Investigations** are online, interactive, multimedia math investigations and activities for students. Students can play an online factor or product game, explore or manipulate geometric shapes, or measure the amount of blood being pumped by the heart. **Reflections on Teaching** offers video vignettes, interactive math content, research reports, and articles designed to improve the teaching and learning of mathematics for all students. **Selected Web Resources** include links to over 1040 reviewed Internet math resources organized according to grade level and standards. These sites contain interactive games and activities for all levels. **Internet-Based Lesson Plans** are developed by teachers and are ready to use in the classroom. **Math*lets** are interactive math tools that can be used to illustrate new concepts and formulas. Interactive simulations allow you to “drive” a car by adjusting the magnitude and direction of a velocity vector, “fly” an airplane by adjusting the airplane velocity and wind velocity vector, or explore the dynamics of a sound wave.



► National Library of Virtual Manipulatives for Interactive Mathematics

<http://matti.usu.edu/nlvm/nav/vlibrary.html>

This National Science Foundation project is an amazing site. It is a library of interactive, web-based virtual manipulatives and tutorials, mostly in the form of Java applets, for mathematics instruction. These physical objects help students visualize relationships and applications. Categories include Number and Operations, Geometry, Algebra, Data Analysis and Probability for grades K-12. Log on to this site and create a bar graph, arrange numbers and objects in patterns, visualize, compare and manipulate fractions, create a tangram, solve number puzzles, and more. All activities correspond to NCTM standards.





In the Schools

Many teachers are integrating computer use into their curriculum in interesting ways to increase student interest and create new learning venues.

Nancy Ressler's fourth grade class at Highland Park has been studying plants and seeds. They planted marigolds in March and recorded their growth with pictures and stories. Each week they took a picture of themselves with the plant and inserted it into an online journal. They followed a rubric, developed by Mrs. Ressler, for their journal entries. Then they turned the journals into Slide Shows and booklets. The Slide Shows can be viewed by classmates, teachers and parents and the booklets, along with the plants, were taken home for Mother's Day.



Carol Runk, SMES Physical Education teacher, used the computer and digital camera to turn an exciting gym class into an integrated learning experience. Her Junk Yard Jump game began with a trash can filled with objects such as noodles, boxes, a broom, hockey stick, a sheet, a huge ball, etc. Student partners emptied the trash can, chose an object and found as many ways as possible to jump the object. Students then completed a worksheet describing the ways they jumped the junk. Carol took pictures of the students jumping the objects and attached the pictures to the completed descriptions. This activity could be adapted to regular classroom activities in many ways. The use of pictures makes it exciting for the students.



Deb Coble, second grade teacher at Highland, has developed a web quest to accompany the story Thundercake. Her students read the story together and then completed the web quest. Deb's goal was to integrate technology, literature and science to create an interesting learning experience for her students. The class enjoyed the webquest because it was new and different and they liked working on it independently. You can view the webquest at <http://www2.mcsdk12.org/dlc09/thundercakewebquest.htm>

Check out the Young Author's Writing Center on the Curriculum Links page of the MCS D website. Ivan Willson's fifth graders at Union have submitted stories that are published at that site. His students have also published their stories online at Writers Window: <http://english.unitecology.ac.nz/writers/read.html> Call Karen Galbraith if you are interested in publishing your students work.

Our Goals

Our goals are to provide staff with up-to-date information regarding all areas of technology, share helpful hints and ideas, showcase teachers and students and communicate staff development plans. Any questions or suggestions can be directed to **Karen Galbraith * 248-6480**