Pennsylvania Department of Education

Commonwealth of Pennsylvania
Department of Education
333 Market Street
Harrisburg, PA 17126-0333

Educational Technology Report

Monday, September 12, 2011
(Last Approved: Friday, March 20, 2009)

Entity: Parkland SD
Address: 1210 Springhouse Rd
Allentown, PA 18104-2119

Mission

MISSION STATEMENT

Concurrent with the district vision is a district mission statement that speaks to the unique purpose or function of the Parkland School District. This mission statement identifies what the district and community do, for whom they do it, and for what benefit. In a real sense, it speaks to the day-to-day actions of all stakeholders as stated below:

Through the collaborative efforts of students, staff, parents, and the community, the Parkland School District mission is to empower each learner to be a meaningful contributor in a dynamic global society.

Key words in this mission statement are emphasized to speak to the collaborative nature of a mission that enhances and extends the district vision. Parkland School District is committed to providing the highest quality education in collaboration with parents, staff, community members and local business partners. We are focused on continuous improvement in all facets of our operation.

Vision

PARKLAND SCHOOL DISTRICT

"A VISION FOR THE FUTURE WITH AN EYE TO THE PAST"

2008 — 2014 STRATEGIC PLAN

The Parkland School District holds a long-standing tradition of annual district themes. Over the past fifteen years, these themes served as a philosophy or framework to guide the efforts of the entire school community. Many of these themes focused on the word “Success.” In some instances the district theme centered on student success with ideas such as “Shared Leadership for Student Success” (2004). In other instances the district theme spoke to the success of schools as in “Schools Only Succeed When Students Achieve” (2003). With time the district themes took a more global perspective by encompassing success for all members of the school community as in “Communicating, Connecting and Caring: Success for All” (2005). The key word of “Success” in a global sense continues as a focal point for district goals and initiatives.

Embedded throughout the district themes are high expectations for both students and staff as stated in the district theme of 1998, “Expect the Best and Get It.” However the Parkland community provides an equally high level of support to achieve those expectations. For many years, the phrase “Educating for Life” served as the district vision. This vision reflects the district’s efforts toward lifelong learning by all stakeholders. Parents and other community members have joined with the school board, administrators, teachers and support staff in serving as a vital force in helping students to be the best they can be. In 1995, the district theme was “We’re in this Together” and in 2001 it was “Parkland Students, Staff and Parents: A Learning Community United in Purpose.” Both spoke to a unified front by all to ensure the success of students. In 1992, the district theme, “Can the Best Get Better?” spoke to the ongoing efforts to self-reflect and continually strive for “Excellence.” Our theme for 2011 is “Parkland School District: Where Challenges Are Met through Education and Innovation.”

From this backdrop, the Parkland School District Strategic Planning Committee embarked upon the challenge of establishing an appropriate vision for the district’s 2008 — 2014 Strategic Plan. In doing so, the committee strived to capture the essence of the community and portray the

district at its ideal best. At the same time, the committee looked to a vision that could serve as an overarching goal and as a means to measure the success of the district. Considerable time, effort and creative energy were spent to arrive at a vision which reflects the ideal best for all stakeholders including students, staff, parents and the entire community. The Parkland School District Strategic Planning Committee and the Parkland Board of School Directors are committed to the overarching district vision:

"Educating for Success, Inspiring Excellence"

Shared Values

CORE BELIEFS AND SHARED VALUES

At the foundation of any organization's vision and mission are the fundamental beliefs held by the organization. Core beliefs or shared values serve as the driving force in the critical decisions made within an organization. As such they guide how members of an organization behave in pursuit of their vision and mission. In education, beliefs about students, learning, and the learning process are essential to the success of a school district. As stated in the district theme of 1997, in Parkland "What You Believe, You Achieve." To this end, the Parkland School District subscribes to the following core beliefs:

- ***Learning is a lifelong process.***
- ***Success for all depends on collaboration.***
- ***All students can learn in a safe and nurturing environment.***
- ***Respect for diversity and individual differences is essential in a growing community.***
- ***Innovation enriches learning for the 21st Century.***
- ***High expectations increase student achievement.***

Again, key words in these belief statements are emphasized based on their importance to all stakeholders in the district.

Needs Assessment

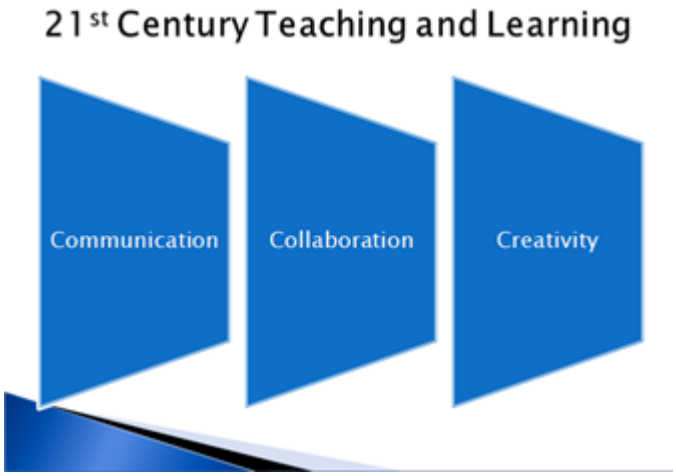
We annually complete the Pennsylvania Technology Inventory (PATI) survey. All teachers and administrators are expected to participate in the survey, which surpasses the state's minimum requirements. We also conduct needs assessments for professional development and there are regular meetings with principals and departments to ensure the technology needs of all stakeholders are met. Recently, we started to use the Level of Technology Integration (LoTI) survey with teaching staff and plan to expand this needs assessment district-wide to include both professional and support staff. Informal feedback is also gathered through our Professional Learning Communities (PLC) that are now established at every grade level.

Reflections

The vision for the use of technology in the Parkland School District is based upon the school district's educational vision ***Educating for Success, Inspiring Excellence.*** We believe that technology should be an integral facet of contemporary education preparing our students for a

rapidly changing information-based society. We see technology playing an ever-increasing role in our efforts to provide a quality educational program, to improve efficiency and effectiveness in administrative functions, and to strengthen communication within our school community.

As technology becomes more integral in our lives, the ability to adapt and change to use these new tools has become even more important. Educators often hear the phrase "21st Century Teaching and Learning." What does this mean in relationship to the world our students will live in and the skills they will need to succeed? It means an increased focus on communication, collaboration, and creativity (the new "3 C's" of education) and an emphasis on teaching students to use technology in order to ***learn how to learn***, solve problems, and think creatively. Students must be taught how to use technology efficiently and effectively, ethically and appropriately, safely and respectfully.



To meet the challenges of higher education coursework, career challenges and a globally competitive workforce, U.S. schools must align classroom environments with real world environments by infusing 21st century skills (from the Partnership for 21st Century Skills). This skill set includes:

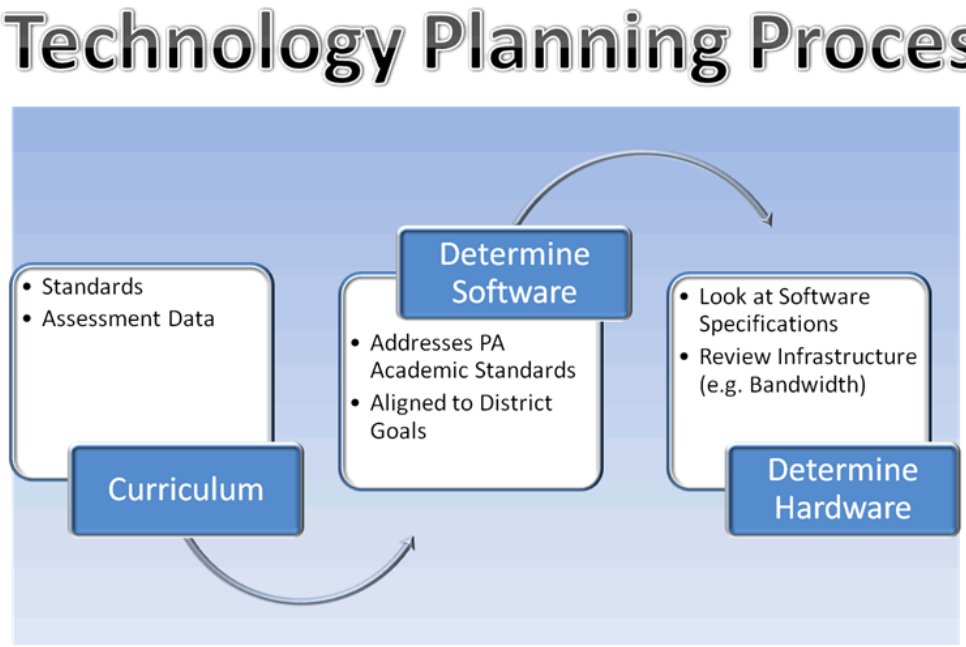
- Information and communication skills (information and media literacy skills; communication skills)
- Thinking and problem-solving (critical thinking and systems thinking; problem identification, formulation and solution; creativity and intellectual curiosity)
- Interpersonal and self-direction skills (interpersonal and collaborative skills; self-direction; accountability and adaptability; social responsibility)
- Global awareness
- Financial, economic and business literacy, and developing entrepreneurial skills to enhance workplace productivity and career options
- Civic literacy

The use of technology in Parkland is in alignment with National Educational Technology Standards (NETS) and the district's strategic planning goals. Annual district goals and objectives are created at the beginning of each school year, a mid-year review/update of the goals is presented in January, and a final annual review of the district goals is reported to the Board of School Directors at the end of the year. Every department creates these goals and the use of technology is involved in almost every goal.

The use of technology is highly supported at the district level. The Technology department works hand-in-hand with Curriculum and Instruction, Student Services, Data and Assessment, Human Resources, Business Administration, and School Services along with the Superintendent and

Assistant Superintendent to design programs that provide the best educational opportunities for Parkland students. The Technology Department has grown over the years to reflect the growing population and also the growing technology demands within the district. In light of our currently challenging economic times, the department has recently been restructured to play an even larger role in district operations as technology is viewed as key to enhancing overall organizational efficiency and communication.

On the instructional side, evidence of improved student achievement has been shown through the ***research-based*** use of technology. We understand that it is not the use of technology, but the ***effective*** use of ***proven*** technologies that is the key to student success. Technology is closely aligned to curriculum, and integration is ensured by focusing on curriculum needs first, followed by any technology resources that may be need to enhance teaching and learning. The diagram below outlines the decision-making process used when implementing any new technology initiative:



Technology is used to make data-driven decisions to prescribe instruction, to update curriculum aligned with Pennsylvania standards and anchors, and to provide instructional resources. Our online student information system, IEP management system, and data warehouse provide building data teams with the ability to merge demographic information with assessments to monitor student achievement and programs. Various technology applications are used to track students mastering standards in math, reading, and writing. These applications also prescribe appropriate learning paths for remediation or enrichment and help to individualize instruction. The use of online learning technologies offers expanded opportunities to students that otherwise would not have been available within the school district. Learning Management Systems (LMS) are widely used at the secondary level and students have many opportunities to continue learning past the traditional school day.

Considerable effort has been made over the last three years to develop an infrastructure for learning that is always on, available to students, educators, and administrators regardless of their location or the time of day. It supports not just access to information, but access to people and participation in online learning communities such as Google Docs.

There is long-term commitment by the school board and community as reflected through moral and financial support. The Board of School Directors approves annual technology goals and a line item is included in the district budget each year. The budget includes funds for a regular replacement cycle of computers and key infrastructure equipment for voice, video, and data technologies. School district funds are also provided for software applications, professional development, and an adequate support staff to protect the district's financial commitment to technology.

District Communication

The use of technology has had a measurable, positive impact on instructional practices, administrative operations, increased parental involvement, and community support. Professionals routinely use Web resources and such participatory content for the research, collaboration, and communication demanded in their jobs. Our student information system (SIS) provides teachers access from school or from home to the tools needed to create vital documents such as progress reports, report cards, and grade book entries. Parents have access to this SIS to monitor their child's achievement, attendance, etc.

The Parkland School District intranet provides all professional and support staff members with the resources and information they need to perform their job and to keep informed of district news. Our district website (www.parklandsd.org) is a one stop site for vital information for parents, students, staff, community members, and the global community as well, and was recently recognized by the Pennsylvania School Public Relations Association (PSPRA) for excellence in content and design. This site not only contains information about the district, but also has regularly press releases, curriculum support resources such as links to online textbooks, parent and student resources, access to our library catalog, links to web-based programs which support writing, reading, mathematics, social studies and science, and information on colleges and careers. Real Simple Syndication (RSS) feeds have recently been added to the district and building web sites to push content directly to parents and community members who wish to subscribe to the service. We've recently started a district television channel through our local cable provider to broadcast important news and events and we are always looking at new ways to expand our ability to communicate with our stakeholders.

It is important that we maintain accessibility to technology for all students, especially those who may be economically disadvantaged. Computers with Internet access are provided evenings and Saturdays at the high school library to any Parkland student or resident. Laptops are available for high school students to sign out. Technology workshops for senior citizens ranging from basic skills to advanced applications are offered many times during the course of the year. They are always full to capacity and in high demand with hundreds of senior citizens participating.

Parkland School District has many exemplary resources in place to communicate with the various stakeholders in the Parkland school community. There are regular monthly meetings with community members in the form of school board meetings, Community Advisory Committee, and parent meetings. An annual Educational Summit has been put into place and many publications are sent to Parkland households.

The Parkland School District website is continuously expanding in its effort to keep the global community informed. An emergency notification service was purchased in 2008, which will allow district administrators to record and send personalized voice and email messages to staff and parents. More importantly, the system will allow us to reach staff and families at a moment's notice should an emergency arise. As part of our student information system, Home Access Center is a web-based vehicle that shares student information, including grades and attendance, with parents and students.

Internally, many communication avenues are available to district staff members using our voice, video, and data information network. Many district forms and resources are made available to staff members via our intranet.

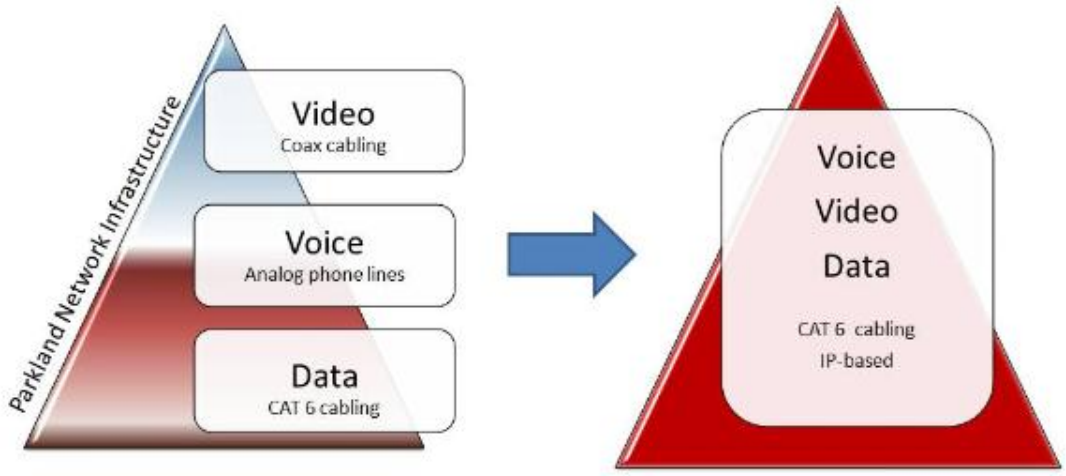
Telecommunications Services

Parkland School District has a wide area network (WAN) that connects two administrative buildings, eight elementary schools, two middle schools and the high school with a fiber gigabit backbone. The fiber is leased from Service Electric Cable TV and runs from each building to the district head end at the high school.

Each building has been wired in such a manner so that network connections are available in all classrooms, offices, libraries, gyms, auditoriums, and instructional planning areas. Within each building the network provides gigabit connections between communications closets and switched 1000MB connections to the desktop. All computers attached to our network have an Internet connection. We now also support a robust 802.11n wireless network in all buildings that is centrally managed and monitored.

Our district network is connected to the Internet and Internet2 via a connection to the Carbon Lehigh Intermediate Unit. As our Internet service provider, the Carbon Lehigh Intermediate Unit provides and maintains our district e-mail accounts, firewall and web filtering.

The Parkland School District currently uses an Ericsson digital telephone system, but we are in the process of migrating to a unified communications network that integrates our voice, video, and data networks to run over our IP-based data network. We have one school already that uses a Toshiba IP-based phone system, and the goal is to migrate all buildings over to Voice over IP (VoIP) by 2014. Below is a diagram that illustrates the unified communications model we will be using:



Each administrative and instructional employee is provided with a voice mailbox and an authorization code, which allows them to make outside calls from any telephone in the district. Our call accounting system gives us the ability to track all calls coming into and/or going out of the district. Local dial tone for telephone services is provided by Service Electric Telephone and

cellular phone service is currently provided by Verizon. Cellular phones are used by key administrators and support staff for job-related purposes, but have grown in use to become an integral part of district communications, especially with the advent of new “smart” phone technology.

All classrooms throughout the district have televisions that are connected to the district video wide area network, but we are also looking to integrate our video WAN into the district data network by converting all television signals to digital transmission over our IP-based network. Service Electric Cable Television of Allentown provides the cable television signal for the district. Sixty-five internal channels are available on the video WAN for district broadcasts. All schools have video bulletin boards, which broadcast on all TV’s on the video network to keep all students and staff informed of important information. There are television studios at all levels. We also have 11 portable production studios capable of broadcasting audio and video from all rooms in all buildings throughout the district. The district’s television program has won several national awards.

Within the school district there are several IP-based videoconference systems. These systems are portable and can be used in any room that has Internet access. We broadcast distance learning/dual enrollment courses daily, and we also use the videoconference units for various electronic field trips in both the elementary and secondary schools with the goal of expanding the use of virtual field trips in the future.

Hardware

Through its previous technology plans, Parkland School District has reached a proficient level of a critical mass of hardware. Of the approximately 4600 computers in the district, 94% are used for instructional purposes and 6% are used administratively. Both the Windows and Macintosh platforms are supported. Over the last 3 years we have added several “green” technologies, most notably desktop virtualization on almost 2000 district computers and server virtualization that allows us to use 3 physical servers to run the equivalent of 36 virtual servers. The move to virtualization has saved the district not only a great deal of electricity, but also is much less expensive to purchase and service and so has been a wise investment for us long-term.

In the elementary schools, each regular classroom has six computers and a printer, although only one of the computers is a physical machine and the rest are virtualized devices. All teachers now have laptops for communication, attendance, demonstration, and other teacher-related functions, and there are five computers for student use. Special areas such as art, music, special education, etc. also have computers in their rooms. Each elementary school also has a 30-station drop-in computer lab, access to a mobile netbook cart, and two iPod Touch carts. All computers are connected to the district network. We are beginning to install interactive whiteboards in the elementary schools and hope to have all elementary classrooms transformed into “intelligent” classrooms by 2013.

In the middle schools, each regular classroom has six computers and a printer. All teachers now have laptops for communication, attendance, demonstration, and other teacher-related functions, and there are five computers for student use. Special areas such as art, music, special education, etc. also have computers in their rooms. Each middle school also has drop-in computer labs, multiple computers in the library, and access to laptops. There are also several computer labs dedicated to the teaching of information technology and technology education with a focus on Project Lead the Way, an innovative pre-engineering program that integrates Science, Technology, Engineering, and Mathematics using a project-based curriculum.

In the high school, each classroom has a computer or laptop for the teacher to use for communication, attendance, demonstration, and other teacher-related functions. Twelve

computer labs of 20 or more computers are in the high school for business education, programming, journalism, technology education, driver education, music, art, library, and general drop-in purposes. Mini computer labs are set up in science labs, the career resource room, broadcasting, etc. With the acquisition of almost $1.2 million from the 2007 and 2008 Classrooms for the Future grants, 92 interactive whiteboards were installed in core subject area classrooms and 20 mobile carts with 30 laptops each are running on a wireless network and available to all classrooms.

Overall, the district-wide ratio of students to computers is approximately 2:1. Computers are upgraded on a regular basis to keep the technology viable to meet curricular needs and we are currently on a five-year refresh cycle for all equipment. Network equipment, centrally located in the district headend room, is replaced frequently to meet requirements of 24/7/4 maintenance contracts, network security and increased data storage needs. Data wiring in all buildings is warranted for 15 years.

Each classroom, office, and public area in the district is equipped with a television attached to the district video WAN. Every classroom has a VCR and access to a portable TV studio, DVD player, satellite dish, and videoconferencing equipment. We are in the process of replacing classroom televisions with either an interactive whiteboard and projector or newer interactive projector technology to make classrooms more visual, engaging environments. Currently we have almost 300 “intelligent” classrooms throughout the district, primarily at the high school and middle school level with the goal of adding interactive projectors to grades 3, 4, and 5 in 2012 and grades K, 1, and 2 in 2013.

Each building also has a supply of digital still cameras, digital video cameras, video editing systems, scanners, USB microscopes, LCD projectors, CPS classroom performance systems, and calculators. All district equipment is identified with an asset tag and included in a comprehensive online inventory. Physical inventories are maintained throughout the year and effective asset management is an important goal of the department.

Several strategies contribute to the economy of communication services and equipment. Centralized administration and control is prevalent throughout the voice, video, and data systems. Features include: shared dial tone across the WAN, common video programming, centralized voicemail and call accounting, centralized network management, centralized storage area network, and centralized data backup. Many factors are considered when purchasing technology such as compatibility, connectivity, obsolescence, upgrade capacity, and maintenance. Parkland School District uses a centralized approach to optimize total cost of ownership and all purchases are focused on maximizing the return on investment (ROI). The Technology department makes the decisions for the type of hardware that is purchased and is moving towards standardization of equipment for ease of support. Similar hardware is purchased for all buildings for resourceful interchanging of parts, limiting different makes and models of hardware to facilitate tech support and training, and saving the most money through competitive bidding.

Software

Software is also purchased centrally. This allows for the most cost efficient licensing alternatives such as site licenses, academically priced versions, network licenses, or lab packs. Software that integrates with the curriculum is chosen during a curriculum review cycle or through various curriculum planning meetings. In this way we explore many alternatives, preview before purchase, and assure that each school is provided the same resources for the curriculum. Software for productivity in the offices is also purchased centrally. With all secretaries using the same software, we can provide more efficient training and share templates for similar applications. We have recently entered into the Microsoft Enrollment for Education Solutions

(EES) program that will allow us to upgrade to the most current productivity suite and operating system software for both Mac and PC computers. The software is loaded by our technology staff and the original media is returned to a central location in the IS department. This assures that the media is always readily available if a reload is needed and assures that the licensing agreement is not violated.

Various technology applications are used to track students mastering standards in math, reading, and writing such as Performance Tracker, Compass Learning, Study Island, My Access, DIBELS, etc. Some of these applications also prescribe appropriate learning paths for remediation or enrichment and help to individualize instruction. Many other applications are available to enhance the K-12 curriculum and expand opportunities and research in various disciplines.

The use of online learning technologies offers increased opportunities to students that otherwise would not have been available within the school district. Dual enrollment courses are offered through the local community college and various universities and students may take online courses in languages such as Mandarin Chinese and Arabic.

One key advantage is the integration of our major data information systems. Parkland uses Sungard Pentamation's eSchoolPlus for its student information system, Performance Tracker for its data warehouse, and eFinancePlus for finance and human resources running under the ASP (application service provider) model. All of the data and applications are housed off-site on Sungard servers. Sungard is responsible for the 24/7 backup, restoration of data, and application upgrades. The applications are web-based and users are maintained by district administrators.

Other district-wide management applications include Follett library software, CafTrack food services software, BusTracks for transportation, eSchoolMall for e-procurement, Johnson Controls for HVAC, and CLIU designed software for facility tracking and an open source solution for technology work order submission. A web-based document management system for board meetings and online substitute procurement system were also recently added. Whenever possible, we aim to use "cloud-based" computing for increased accessibility and ease of maintenance.

Safety and Security

Parkland School District's Novell Network was recently upgraded to Microsoft Active Directory and provides each employee and student with his/her own password protected account and home directory. Departmental shared directories are provided for groups of employees that need to share files. Users can only view, modify, store or delete files that they have been granted permission to do so. Active Directory policies provide restricted desktops and custom menus for students and staff. Custom desktops are also used in order to quickly identify a user with student or staff privileges. Faculty and staff are required to change their passwords every 45 days as per state recommended guidelines.

All computer equipment is inventoried and labeled with a Parkland asset tag, and a web-based asset management system is used to manage all district technology resources. All network drives are backed up daily. All servers and computers run anti-virus software as well as receive regular updates. File servers are located in a secure, air-conditioned area and power is backed up by a generator in all buildings now due to a recent upgrade and to prepare for our Voice over IP (VoIP) implementation. Other electronics are mounted on racks in locked closets or wall cabinets.

Successful information security procedures require the leadership, commitment, and active participation of all staff members. Staff members are reminded frequently of the importance of our information security procedures and the proactive measures that need to be followed to

ensure that our children, data, and technology resources are safe and available to support instruction and school management.

Internet Safety

The Internet is a valuable learning resource for students. They can use it to conduct research, communicate with almost anyone, experience different parts of the world, and express their opinions. Any student who is old enough to type a few characters can literally access the world.

This access can also pose hazards to young students. Inappropriate content, identity theft, and online predators are a few of the dangers that students need to be aware of.

The Parkland School District makes every effort to ensure a safe computing environment for our students. As mandated by the Children's Internet Protection Act (CIPA), web content filtering is provided on all student computers. However, sheltering students from inappropriate Internet sites is not the complete solution.

To ensure all of our students have a solid foundation on how best to navigate the Internet, a K-12 Internet safety curriculum on topics associated with online personal safety, cyber security, and intellectual property was developed and is being implemented by the librarians and Information Technology teachers. An online orientation program was recently created to teach high school students on how best to navigate new social networking sites such as Facebook and Twitter.

Policies

The Parkland School District Acceptable Use of Computers, Network, Internet, Electronic Communications and Information Systems Policy was significantly revised in 2010 and approved by the Board of School Directors, and is continually reviewed as new technology advances emerge. Teachers are encouraged to review the policy each year with their students and it is part of the curriculum in the middle school information technology curriculum. Each time anyone logs into the Parkland School District network, a pop-up window reminds the user that logging in requires the user to abide by the AUP. We also established website guidelines to direct educators when setting up curriculum web pages on our district servers. These guidelines are available on our website and our intranet.

However, we are in the process of revising our Acceptable Use Policy as we research the possible implementation of an Open Campus approach at the high school that would allow students to bring many of their own devices (such as iPads, Kindles, and netbooks) to school. A move to this approach would require increased network security and capacity, but would also allow our "digital natives" 24/7 access to the devices they use and rely upon currently at home. It would also allow us to continue the Classrooms for the Future initiative in a more cost-effective manner. Our goal is to research and develop a plan for the implementation of an Open Campus approach during the 2011-2012 school year with the goal of having a pilot program in place for the 2012-2013 school year. This would also mark a significant, but necessary, change to our current network policies that do not allow personal devices to be used in the classroom.

Support Services

Parkland School District needs a strong cadre of people to help maintain the network and other hardware, and to help users solve the problems they encounter with their computers, peripherals, and software applications in a timely fashion. Our goal is to increase client support and satisfaction, and maximize time-on-task while using technology. In addition to hardware and software support, the Technology department also provides curriculum support, website management, data mining, professional development, telephone system management and extensive video services. The support of the administrative functions of our school district closely parallels the needs found in the business sector.

There are many things that the Parkland School District is doing to creatively contain the costs associated with support services. We try to manage as many variables as possible by limiting the variety of hardware, peripherals and operating systems. We have centralized network management of voice, video and data applications. We limit the ability of teachers and students to modify the way computers are configured. We have both 10-month and 12-month employees for support, and we use the ASP model for applications where appropriate.

Identified strengths and weaknesses

In developing this educational technology plan, Parkland School District brought together leaders from a variety of stakeholder groups to gather thoughts and develop a vision for technology use. The strategic planning process was only one of the vehicles for gathering data for the needs assessment. We also used data from the Pennsylvania Technology Inventory (PATI) survey; professional development needs assessments; and various technology and curriculum committee meetings.

The greatest strengths that were identified came as a result of our goals in the previous technology plan. Throughout our previous technology plan we endeavored to bring rich technological resources into the classroom to increase student achievement. The following goals from our 2009-2012 technology plan have been met:

- Work as part of a team to provide quality educational programs for curriculum and instruction that involve the opportunities presented by technology to meet the challenges of the digital age.
- Offer ongoing professional development to staff and community members as it relates to technology.
- Provide a technology infrastructure that supports both educational and administrative management goals.
- Integrate data systems so that administrators and educators have the information they need to collect and analyze data, interpret results, and communicate findings to improve instructional practice, student learning and operational systems.
- Provide technical assistance and resources for communication and collaboration among colleagues, staff, parents, students, and the larger community.
- Successfully implement the Classrooms for the Future state grant initiative
- Establish a district-wide wireless network
- Expand distance learning and online learning opportunities for students
- Implement a work order system for improved staff support
- Create a more robust, web-based asset management system for more accurate and dynamic tracking of district resources

Some of the challenges that we face are related to the constant need for upgrading resources coupled with ever-increasing budget constraints. Maintaining up-to-date equipment and

applications to meet instructional and administrative needs must be balanced with careful fiscal management. With this in mind, we created a 5-year financial plan that aligns with our refresh cycle and the district's overall 5-year financial plan.

Another identified need is to provide more time for teachers and staff members to learn new technology, share ideas, and integrate the technology into the classroom to foster 21st century teaching and learning, and to make sure that all staff have appropriate training opportunities tailored to their current technology skill level.

Goals and Strategies

2012-2015 Technology Plan Goals

The goals listed below were designed to be SMART (Specific, Measurable, Achievable, Relevant, and Timely) so we may better assess our progress towards completion of the goals.

Goal: TEACHING and LEARNING **Ensure that curricular design, instructional strategies, and learning environments integrate appropriate technologies to maximize learning and teaching.**
Strategy: Provide Educational Technology Resources ***Continue to provide the instructional staff with the technology resources to maximize learning and enhance teaching to help students achieve high academic standards. Continue to partner with Curriculum and Instruction to facilitate the successful integration of technology into core subjects (K-12 Science, HS English, Social Studies, Mathematics) and special subject areas (World Languages and Music).***
Goal Activity #1: Online Learning *Expand the number of online options for students and staff. Use the learning management system Moodle to continue the development of online courses at the high school and work with teachers to develop our own collection of online professional development modules.*
Goal Activity#2: Technology Mentors *Pilot a student-led technology mentor program at the high school to support student-provided technical support to staff. If successful, expand this program into the middle schools. Expand the role of the district librarians to provide technology instruction and leadership to staff.*
Goal Activity #3: Professional Development *Evaluate all professional staff on their level of technology proficiency using the LoTI (Level of Technology Integration) assessment tool and provide more tailored professional development offerings with the goal of advancing all staff by at least one level using the LoTI proficiency scale by 2014.* *Evaluate our Administrative Assistants on their level of technology proficiency using the LoTI (Level of Technology Integration) assessment tool and continue to invest time in teaching our Administrative Assistants technology tools such as online form creation and online content posting that can make them more efficient and productive.*
Goal Activity #4: Open Content *Assist the Curriculum and Instruction department with the development of rubrics for the evaluation and use of Open Content resources. Pilot the use of eBook readers at the secondary and elementary levels during the 2011-2012 school year.*

Strategy: 21st Century Skills
Provide students with opportunities to be proficient in 21st century skills they need to thrive in today's educational environment and tomorrow's workplace.

Goal Activity #5: Technology Instruction
Identify and deliver effective technology training for students to ensure that all students demonstrate growth in technology literacy. Develop a technology assessment for 5th and 8th grade students to evaluate student proficiency. Review and revise the K-12 technology curriculum annually to ensure appropriate skills are being taught. Begin formal keyboarding instruction in 3rd grade.

Goal: PRODUCTIVITY AND PROFESSIONAL PRACTICE
Apply technology to enhance professional practice, to increase productivity, and to promote communication.

Strategy: Communication and Collaboration
Employ technology for communication and collaboration among colleagues, staff, parents, students, and the larger community

Goal Activity #6: Parkland Website and Intranet
Add more dynamic information to the district website and intranet by including RSS feeds on pages throughout the district and building sites. Expand the district's use of social networking tools such as Facebook and Twitter. Create apps for cell phones that would push calendar content to parents/families that opt to receive it. Important notifications should also be included.

Goal Activity #7: Staff Communication
Assist all professional staff with the development of a web presence by the end of the 2011-2012 school year using a variety of tools such as Word Press templates, Google Sites, wikis, blogs, or additional Web 2.0 applications. Pilot the implementation of Parkland TV on Service Electric cable television during the 2011-2012 school year to broadcast video bulletin board content and district events.

Goal Activity #8: Communication Tools for Students
By 2012 provide every student in grades 9-12 with a Parkland email account, Moodle account, and Google Docs account to facilitate collaboration and online learning.

Goal Activity #9: Online Maintenance Order System
Create and activate an online work order system for building custodial staff members. Provide staff members with mobile devices such as iPod Touch computers to access work orders from any location in the building.

Goal: SUPPORT, MANAGEMENT AND OPERATIONS
Maintain and improve a reliable, high-speed infrastructure that is flexible enough to deal with the rapid pace of technological change.

Strategy: Reliable Infrastructure
Ensure continuity and functionality of all systems for instructional and administrative computing needs.

Goal Activity #10: Robust Network Infrastructure
Move towards a redundant Unified Communications Network that collapses the district's voice, video, and data cabling to run all telecommunications using an IP-based infrastructure. The district phone system will be fully upgraded to Voice-over-IP (VoIP) by 2014 and the district's video WAN will be converted to a fully digital system by 2014.

Goal Activity #11: Equipment Refresh Cycle
Continue a cyclical, efficient procurement of equipment, including the identification and procurement of emerging technologies. Refresh all 5-year old computers and plan for the upgrade of switches, routers, backup systems and telephone system.

Goal Activity #12: Green Technologies
Reduce district computing energy costs by at least 25% by expanding the implementation of server and desktop virtualization. Reduce the district printing costs by at least 25% by moving from a fully decentralized to a modified, more centralized approach using network copiers installed throughout the buildings by 2015.

Goal: ASSESSMENT AND EVALUATION
Provide the needed electronic resources that enable all stakeholders to have easy access to mission-appropriate data.

Strategy: Centralized Data and Information
Assist staff to utilize electronic resources to collect and analyze data, interpret results, and communicate findings.

Goal Activity #13: Data Warehouse
Maintain an efficient data warehouse system synchronized with our Student Information System (SIS) to improve instructional practice with the ultimate goal of improving student achievement.

Goal Activity #14: District Information Systems
Establish streamlined, enterprise-wide systems to improve planning, operations, and administrative productivity. Implement a SIF (Software Interoperability Framework)agent for all major data systems (Follet Destiny, CafTrack, etc.) for more dynamic integration with eSchoolPlus by 2014. Provide administrators with access to student information system data via a mobile app by 2012. Work with the Business and Personnel departments to implement the Employee Access Center portal so staff may update personal information directly by 2012. Use technology to streamline workflow processes in both the Business and Personnel departments by 2012.

Goal Activity #15: Teacher Evaluation System
Pilot the PDE teacher evaluation system and develop the ability for administrators to assess teachers using mobile technologies.

Goal: SOCIAL, LEGAL AND ETHICAL ISSUES
Understand the social, legal, and ethical issues related to technology

Strategy: Social, Legal, Ethical Practices
Identify, communicate, model, and enforce social, legal, and ethical practices to promote responsible use of technology.

Goal Activity #16: Policies
Review staff/student technology-related policies and guidelines to allow more personal computing devices to be brought onto the district's network using an "open campus" approach. This will be piloted at the high school during the 2012-2013 school year. Revise the Acceptable Use Policy to reflect these changes.

Goal: LEADERSHIP AND VISION
Maintain an inclusive and cohesive process to develop, implement, and monitor a dynamic, long-range and systemic technology plan to achieve the district vision.

Strategy: Goal Setting

Develop, implement, and monitor short-term and long-range goals for technology use aligned with district goals.

Goal Activity #17: Long-range Goals
Develop long-range goals to strategically plan for future curriculum, infrastructure and administrative needs. Revise goals for the School Board annually in August and review in January. Finalize the Educational Technology Report for the district strategic plan.

Potential Budget for an AMENDMENT to the currently approved plan report that spans 7/1/2012 to 6/30/2015.

Funding Source	2012-2013	2013-2014	2014-2015	Total
010 - ADMINISTRATIVE BUDGET	$1,542,544.00	$1,532,544.00	$1,532,544.00	$4,607,632.00
212 - PA Accountability Grants	$105,000.00	$105,000.00	$105,000.00	$315,000.00
471 - NCLB - TITLE III, Part A - Grants for English language Acquisition	$4,000.00	$4,000.00	$4,000.00	$12,000.00
eRATE	$72,100.00	$72,100.00	$72,100.00	$216,300.00
Grand Total	**$1,723,644.00**	**$1,713,644.00**	**$1,713,644.00**	**$5,150,932.00**

Goal: Assessment and Evaluation
Provide the needed electronic resources that enable all stakeholders to have easy access to mission-appropriate data.

Centralized Data and Information	2012-2013	2013-2014	2014-2015	Total	Funding Source
Administrative Systems	$19,000.00	$19,000.00	$19,000.00	$57,000.00	010 - ADMINISTRATIVE BUDGET
Subtotal	**$19,000.00**	**$19,000.00**	**$19,000.00**	**$57,000.00**	

Goal: Leadership and Vision
Maintain an inclusive and cohesive process to develop, implement, and monitor a dynamic, long-range and systemic technology plan to achieve the district vision.

Research	2012-2013	2013-2014	2014-2015	Total	Funding Source
Collaboration	$5,000.00	$5,000.00	$5,000.00	$15,000.00	010 - ADMINISTRATIVE BUDGET
Current Trends	$5,000.00	$5,000.00	$5,000.00	$15,000.00	010 - ADMINISTRATIVE BUDGET
Subtotal	**$10,000.00**	**$10,000.00**	**$10,000.00**	**$30,000.00**	

Goal: Productivity and Professional Practice

Apply technology to enhance professional practice, to increase productivity, and to promote communication.

Communication and Collaboration	**2012-2013**	**2013-2014**	**2014-2015**	**Total**	**Funding Source**
Emergency Preparedness	$29,000.00	$29,000.00	$29,000.00	$87,000.00	010 - ADMINISTRATIVE BUDGET
Other Online Resources	$10,000.00	$0.00	$0.00	$10,000.00	010 - ADMINISTRATIVE BUDGET
Parkland Website and Intranet	$20,000.00	$20,000.00	$20,000.00	$60,000.00	010 - ADMINISTRATIVE BUDGET
Professional Development and Training	**2009-2010**	**2010-2011**	**2011-2012**	**Total**	**Funding Source**
Community Training	$6,000.00	$6,000.00	$6,000.00	$18,000.00	010 - ADMINISTRATIVE BUDGET
Parkland Staff Training	$50,000.00	$50,000.00	$50,000.00	$150,000.00	212 - PA Accountability Grants
Subtotal	**$115,000.00**	**$105,000.00**	**$105,000.00**	**$325,000.00**	

Goal: Support, Management and Operations
Maintain and improve a reliable, high-speed infrastructure that is flexible enough to deal with the rapid pace of technological change.

Reliable Infrastructure	**2012-2013**	**2013-2014**	**2014-2015**	**Total**	**Funding Source**
Equipment Refresh Cycle	$1,000,000.00	$1,000,000.00	$1,000,000.00	$3,000,000.00	010 - ADMINISTRATIVE BUDGET
Network	$72,100.00	$72,100.00	$72,100.00	$216,300.00	eRATE
Network	$108,144.00	$108,144.00	$108,144.00	$324,432.00	010 - ADMINISTRATIVE BUDGET
Network	$34,000.00	$34,000.00	$34,000.00	$102,000.00	010 - ADMINISTRATIVE BUDGET
Technology Support	$38,000.00	$38,000.00	$38,000.00	$114,000.00	010 - ADMINISTRATIVE BUDGET
Subtotal	**$1,252,244.00**	**$1,252,244.00**	**$1,252,244.00**	**$3,756,732.00**	

Goal: Teaching and Learning
Ensure that curricular design, instructional strategies, and learning environments integrate appropriate technologies to maximize learning and teaching.

Provide	**2012-2013**	**2013-2014**	**2014-2015**	**Total**	**Funding Source**

Educational Technology Resources					
Curriculum & Instruction	$55,000.00	$55,000.00	$55,000.00	$165,000.00	212 - PA Accountability Grants
Curriculum & Instruction	$4,000.00	$4,000.00	$4,000.00	$12,000.00	471 - NCLB - TITLE III, Part A - Grants for English language Acquisition
Distance Learning	$38,000.00	$38,000.00	$38,000.00	$114,000.00	010 - ADMINISTRATIVE BUDGET
Early Intervention	$22,400.00	$22,400.00	$22,400.00	$67,200.00	010 - ADMINISTRATIVE BUDGET
Online Instructional Materials	$50,000.00	$50,000.00	$50,000.00	$150,000.00	010 - ADMINISTRATIVE BUDGET
Students with Special Needs	$5,000.00	$5,000.00	$5,000.00	$15,000.00	010 - ADMINISTRATIVE BUDGET
Technology Mentors	$153,000.00	$153,000.00	$153,000.00	$459,000.00	010 - ADMINISTRATIVE BUDGET
Subtotal	**$327,400.00**	**$327,400.00**	**$327,400.00**	**$982,200.00**	
Grand Total	**$1,723,644.00**	**$1,713,644.00**	**$1,713,644.00**	**$5,150,932.00**	

Staff Development

Parkland School District provides professional development opportunities to all staff through a program called the Parkland Academy. The Academy provides ongoing training and guided practice throughout the summer and school year, with programs ranging from a few hours to year-long study groups. The Parkland Academy is administered by the Director of Curriculum, Instruction and Professional Development and the Assistant to the Superintendent for Operations facilitates the technology-related workshops. All workshops focus on district goals derived from the overall district strategic plan, technology plan, special education plan, and professional development plan. Professional development is aligned on an individual basis with a teacher's differentiated supervision plan, and on a district basis with common goals. Staff members are surveyed for professional development areas of need and interest and the district also identifies district-wide needs that require training. Support staff members also engage in sustained, job-related technology training.

All staff has access to a wide array of district staff development programs during the year as well as off campus opportunities through the intermediate unit, graduate courses, vendor training sessions, conferences, workshops, etc. Staff development delivery systems within our school district include instructor-guided practice, curricular focus groups, orientations, retreats, classroom visitations, professional learning study groups, and Readers' Club just to name a few. We have added Atomic Learning has a "just-in-time" professional development option for the

technology staff. Staff development is required in implementing all new technologies. Individualized development by grade levels/departments and flexibility in training is paramount to maintaining a successful program.

Professional development is conducted in-house by administrators, teachers, technology department members and other staff. With commercial products such as Compass Learning, My Access, etc., vendor trainers are also used. The format used often is the trainer-of-trainer model. A small group of teachers representing the end users are trained by experts. They in turn must then turnkey the training to the other staff members in their building, grade level, or department. Building technology support staff is also trained at the same time. The tech staff can then support the technical aspects of the program and the teacher trainers can support the curriculum/instruction aspects of the application.

Monitoring

Once a vision is built, we must keep a regular focus on that vision and adequately communicate it within our learning community. We need to sustain the momentum of this strategic planning process. Along the way there will be a need for occasional fine-tuning as technology changes and evolves coupled with the changing demographics of our student population. Careful study, research, and constant awareness of emerging trends are essential elements to help us propel our educational system forward.

Research shows that ongoing, frequent monitoring of internal operations and student performance is vital for determining if you are making progress. With such monitoring, you can see what's working, what's not, and adjust if necessary. We need to keep our ears to the ground but at the same time, our eyes to the future. The technology committee that has been established as a result of the strategic plan is an invaluable resource for providing a 360 ° perspective and will be expanded to include additional community members and students who will meet regularly throughout the year to review current goals and revise and adjust as our district needs change.

In addition, the board and administration are very involved in monitoring the implementation of programs. Goals and objectives are set at the beginning of each year, and mid-year and end-of-year reviews/updates are presented to the superintendent and to the board of school directors.

Evaluation

The technology plan should be evaluated from numerous vantage points. All aspects related to the implementation of the plan need to be scrutinized. This includes curriculum infusion, resource materials, professional development, hardware and networking, communication, productivity and student achievement. Both formative and summative evaluations should take place using surveys, observation, test data, committee recommendations and feedback, and the monitoring of our digital systems. The results of evaluations will be reported to district stakeholders and modifications to the plan will be made as appropriate.

Below is an outline of the assessment tools that will be used to gauge the success of the district's technology plan

Assessment	How it will be used
Level of Technology Integration (LoTI) survey	This survey will be used to help guide professional development for professional and support staff. As stated in the district goals, our training will target the specific needs of staff so that all staff progress at least one level over the 3-year span of the technology plan.
Pennsylvania Technology Inventory (PATI)	This survey provides baseline data for us to compare Parkland's program against other PA schools. All professional staff complete this survey annually.
Student Technology Skills Inventory	As per our technology plan, students will be assessed in 5th grade and 8th grade and this data will be used to guide technology curriculum decisions. A similar survey is also administered to the high school students.
Feedback from the district technology committee, district administrators, and board members.	Regular meetings will be scheduled with the district technology committee to continue to receive their feedback on the district's progress. In addition, regular meetings with the superintendent, assistant superintendent, and board members ensure they are kept informed on the district's technology program.