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# Pennsylvania Department of Education

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COMMONWEALTH OF PENNSYLVANIA  
**DEPARTMENT OF EDUCATION**  
333 MARKET STREET  
HARRISBURG, PA 17126-0333

## **Educational Technology Report** **Monday, December 03, 2007**

**Entity:** Keystone SD  
**Address:** 451 Huston Avenue  
Knox, PA 16232-9390

**Phone: (814) 797-5921**  
**Contact Name: Jean Gool**

## **Core Purpose**

### **Mission**

The Keystone School District, through partnerships with home and community, provides students with a safe, high-quality education that inspires lifelong learning.

### **Vision**

It is the vision of the Keystone School District that our students will become responsible citizens equipped to apply 21<sup>st</sup> century skills successfully.

In pursuit of this vision, the Keystone School District will:

- maintain a safe, stable, and dependable learning environment
- provide all students with a quality curriculum delivered by quality teachers
- provide future-focused leaders who will address the aspirations and abilities of all students
- prepare students to be technologically literate, globally-minded, and future-oriented
- prepare students to communicate effectively and work cooperatively in order to serve as a positive leadership force in the community

### **Shared Values**

We believe that family and community support a school environment that fosters and encourages our children to develop authentic relationships, personal ethics, mutual respect, and motivation to learn.

### **Needs Assessment**

The Keystone School District is part of the Riverview IU 6 Regional WAN Consortium that recently received Efund Grant funding. We will greatly benefit from the grant with increased bandwidth, access to Internet2, and videoconferencing capabilities. We hope that eventually area businesses and families will be able to connect to the WAN and take advantage of the high-speed Internet capabilities. Currently, much of the community struggles with slow dial-up connections.

Our technology team discovers potentially useful new technologies by attending conferences (when funding is available) as well as by reading technology journals, listservs, blogs, and other online resources. Our ITS is a member of ISTE and receives their publications.

We have identified several network-related needs: (1) Continuation of email service. Our email service is currently provided as part of a contract with our Internet service provider. That contract will expire during the summer of 2007 and will not be renewed due to our participation in the RWAN. (2) Evaluation and adoption of filtering software. The subscription for our current software (N2H2 Bess) will expire soon; we must opt to renew the subscription or choose and contract for a different filter. (3) Continuation of our 4-year computer rotation plan. (4) Maintenance or updating of our network to meet current and future needs. (5) Increase of Internet bandwidth as needed. We are currently maxing out our bandwidth, and our connection is very slow at times.

Surveys completed by teachers have identified the following staff development and equipment needs: (1) More technology integration training, planning time, and time to explore technology resources. Sixty-eight percent of the teachers are not satisfied with the amount of technology used in their classrooms, 59% seldom or never make assignments that require student use of technology, and 36% need more technology integration training. Forty-two percent usually lecture or use direct instruction, and only 9% usually use technology to present a lesson. Another 32% said they lack the equipment needed to integrate technology effectively (projection equipment, whiteboards, computer access in classrooms and labs.) (2) Staff development in the following areas: video-editing software (92% of teachers), adding to a wiki (91%), databases (85%), web page design software (82%), adding to a blog (74%), presentation software (55%), graphic organizer software (52%), spreadsheets (46%).

Student surveys identified the following student training needs: spreadsheets, databases, web-page design, video editing, Nettrekker, blogs, wikis, and contacting experts for information. Students also requested more access to technology.

We also see a need for a standards-aligned K-12 technology scope and sequence and a method for verifying that students are technology literate by the time they leave the 8<sup>th</sup> grade as required by No Child Left Behind.

## Goals and Strategies

### Goal: Math and Reading

*Description:* Students will achieve proficient and advanced levels in reading and mathematics at or above state percentage requirements.

### Strategy: K-12 Math Improvement Strategies

*Description:* Teachers will develop instructional plans that are aligned with the state standards.

*Activities:*

Activity	Description	
Integrate Standards-Based, Technology-Rich Instruction and Collect Data.	Technology will be used as a tool to help students meet or exceed the PSSA Standards for Mathematics. Students will participate in standards-based, technology-rich lessons and will receive individualized instruction through PSSA-aligned software applications such as SuccessMaker and Study Island. Technology, such as Foursight software, will be used to gather and evaluate student data for decision making.	
Person Responsible	Timeline for Implementation	Resources
Barbara Witkowski	Start: 8/28/2007 Finish: 5/28/2010	\$14,300.00

### Strategy: K-12 Reading Improvement Strategies

*Description:* Teachers will develop instructional plans that are aligned with the state standards and anchors.

*Activities:*

Activity	Description
Integrate Standards-Based Technology Rich Instruction and Collect Data	Technology will be used as a tool to help students meet or exceed the PSSA Standards for Reading. Students will participate in standards-based, technology-rich lessons and will receive individualized instruction through PSSA-aligned software applications such as SuccessMaker and Study Island. Technology, such as Foursight software, will be used to gather and

	evaluate student data for decision making.	
<b>Person Responsible</b>	<b>Timeline for Implementation</b>	<b>Resources</b>
Barbara Witkowski	Start: 8/28/2007 Finish: 5/28/2010	\$0.00

**Goal: Technology**

*Description:* Students will use technology as a tool to make informed decisions leading to high academic standards aligned with 21st Century skills.

**Strategy: Equip core classrooms to meet the needs of 21st Century students and teachers.**

*Description:* Today's students, our "digital natives," have diverse learning needs, and technology can be used to provide instruction that targets multiple intelligences. We will begin to equip core subject area classrooms with projection systems or devices and whiteboards and provide increased access to other technologies to be used as teaching and learning tools.

*Activities:*

<b>Activity</b>	<b>Description</b>	
Equip core classrooms with projection systems or devices.	We will install projections systems in core classrooms in Grades 7 and 8 through an EETT grant and will begin installing projection systems or devices in core classrooms in Grades 9-12 as well, hopefully through a Classrooms for the Future grant. We will make a projector or projection device accessible to each grade level quad in the elementary school. Teachers will be trained on integrating the systems into their instruction.	
<b>Person Responsible</b>	<b>Timeline for Implementation</b>	<b>Resources</b>
Barbara Witkowski	Start: 6/4/2007 Finish: 5/29/2009	\$49,405.00

<b>Activity</b>	<b>Description</b>	
Maintain or replace peripheral equipment.	We will maintain current peripheral equipment, including classroom and network printers, scanners, digital cameras, etc. and replace as needed. Additional multimedia and other peripheral equipment will be purchased as needed.	
<b>Person Responsible</b>	<b>Timeline for Implementation</b>	<b>Resources</b>
Barbara Witkowski	Start: N/A Finish: N/A	\$28,566.00

<b>Activity</b>	<b>Description</b>	
Provide up-to-date computers replaced on a 4-year rotation basis.	We will continue to lease laptop and desktop computers with 4-year warranties and replace them on a 4-year rotation. If funded, Classrooms for the Future laptops for core classrooms in Grades 9-12 will be purchased with grant resources in 07-08 and 08-09.	
<b>Person Responsible</b>	<b>Timeline for Implementation</b>	<b>Resources</b>

Jonathan Maddy	Start: 7/1/2007 Finish: 7/1/2010	\$889,327.00
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**Strategy: Establish Student-centered Classrooms**

*Description:* Students will become more actively involved in their learning through exposure to technology-rich classrooms with student-centered instruction.

*Activities:*

Activity	Description	
Adopt a standard research and problem-solving model.	K-12 teachers will be in-serviced on the Big 6 problem-solving model for integration into student projects. Students will use Big 6 when planning research projects.	
Person Responsible	Timeline for Implementation	Resources
Barbara Witkowski	Start: 8/22/2007 Finish: 5/30/2008	\$0.00

Activity	Description	
Develop a K-12 Technology Scope and Sequence	We will develop and implement a K-12 Technology Scope and Sequence aligned to both the PA Academic Standards and ISTE National Standards. Benchmarks will be developed for each grade level.	
Person Responsible	Timeline for Implementation	Resources
Barbara Witkowski	Start: 8/1/2007 Finish: 12/21/2007	\$0.00

Activity	Description	
Provide software resources for independent learners.	Instructional, network, administrative, and productivity software will be purchased, maintained and/or updated as needed. Support contracts for software will also be purchased as appropriate.	
Person Responsible	Timeline for Implementation	Resources
Barbara Witkowski	Start: 7/2/2007 Finish: 7/5/2010	\$63,000.00

Activity	Description	
Provide staff development in effective technology integration.	Formal staff development sessions will be held district-wide on in-service and Act 80 days as well as during "Tech Tuesday" sessions at Keystone Elementary. Informal training will be held in small groups and in one-to-one meetings as needed. After-school sessions will be offered as funding permits. If "Classrooms for the Future" is funded, additional training will be available to core subject area teachers in Grades 9-12 as part of the grant. Also, core teachers in Grades 7 and 8 will complete the "Core Teaching Skills" modules during the 07-08 school year as part of our EETT Grant and will receive two hours of additional integration training beyond the school day.	

<b>Person Responsible</b>	<b>Timeline for Implementation</b>	<b>Resources</b>
Barbara Witkowski	Start: 6/18/2007 Finish: 6/30/2010	\$26,883.00

**Strategy:** Provide a reliable network to meet the needs of 21st Century teachers and students.

*Description:*

*Activities:*

<b>Activity</b>	<b>Description</b>	
Connect to Regional Wide-Area Network and Internet 2	The Regional Wide-area Network will go live on July 1, 2007. Our connection will be funded primarily through an eFund Grant and eRate and includes a connection to Internet 2. The district will fund the expense for set up and configuration.	
<b>Person Responsible</b>	<b>Timeline for Implementation</b>	<b>Resources</b>
Barbara Witkowski	Start: 7/9/2007 Finish: 12/31/2007	\$8,300.00

<b>Activity</b>	<b>Description</b>	
Maintain or upgrade network equipment and software.	Hub closets and switches will be maintained or upgraded as needed. Servers and software will also be maintained or upgraded as needed. We will purchase a new server and filtering/antivirus/email journaling software.	
<b>Person Responsible</b>	<b>Timeline for Implementation</b>	<b>Resources</b>
Barbara Witkowski	Start: 7/2/2007 Finish: 7/5/2010	\$46,000.00

<b>Activity</b>	<b>Description</b>	
Provide reliable email service	We will choose a new email solution as our current contract expires during the summer of 2007. Options include purchase and maintenance of our own email server or contracting with Riverview IU 6 for email service.	
<b>Person Responsible</b>	<b>Timeline for Implementation</b>	<b>Resources</b>
Barbara Witkowski	Start: 7/9/2007 Finish: 8/31/2007	\$8,000.00

**Goal: Wellness, Nutrition, and Fitness**

*Description:* The district will provide a school environment that promotes student wellness, proper nutrition, nutrition education, and regular physical activity.

**Strategy: Wellness**

*Description:* Information and assessment involving wellness, nutrition and fitness will be provided for students and staff.

*Activities:*

Activity	Description	
Technology to Promote Wellness	Technology, including software such as Health eTools, will be used for data collection and reporting and for access to lesson plans, nutritional information, and other Internet resources that promote wellness.	
Person Responsible	Timeline for Implementation	Resources
Barbara Witkowski	Start: 8/28/2007 Finish: 5/28/2010	\$0.00

## Staff Development

The Keystone School District employs a full-time certified instructional technology specialist who facilitates technology professional development activities. She teaches workshops and provides one-on-one instruction to teachers as needed. Other members of the technology team (elementary and high school business teachers, high school library media specialist) provide training, also. Keystone teachers also have access, for a fee, to the online Core Teaching Skills modules provided by Riverview IU 6 as well as the online courses offered by other outside providers. We are a member of the Riverview IU 6 E-fund Consortium which recently received funding to install a regional WAN. When in place and live, the WAN will give us additional training options through videoconferencing and Internet 2.

The Keystone Elementary schedule allows for training between 8:15 a.m. and 9 a.m. prior to arrival of students. We offer a weekly "Tech Tuesday" session in that building. Because the Keystone High School schedule does not permit training time during the workday, we must hold sessions after school. We plan to continue to offer workshops on Act 80 and in-service days as well as during release time as needed. Our 2007-08 school calendar includes two in-service and two Act 80 days prior to the first day of school, and some of that time will be used for technology integration training. We have included a small dollar amount in our technology budget for training outside the school day/year and hope to be able to increase that allocation as time goes on. We also plan to look at "creative" ways to allow time for training, such as a late start or early dismissal.

With exceptions for workshops held on in-service and Act 80 Days, technology professional development is optional. However, the administrators do look for integration of technology when they do both formal and informal teacher observations. We are investigating ways to reward teachers for attending training, perhaps by allowing them to earn equipment or software for participation. Training for our Web-based grade books, online grade reporting system, and other administrative tools has been ongoing.

We will implement an EETT grant during the 2007-08 school year that will allow all 7<sup>th</sup> and 8<sup>th</sup> grade teachers to complete the Core Teaching Skills modules and also receive more subject-specific integration training. We plan to implement a mentoring/coaching model of technology training, where members of the tech team will serve as mentors to the 7<sup>th</sup> and 8<sup>th</sup> grade teachers, and they in turn will be technology coaches for the other members of their departments. We plan to expand this coaching model to the elementary school as well.

Additionally, we have applied for a Classrooms for the Future grant, which if funded will provide intensive technology integration training for our core subject area teachers in Grades 9-12 over the next two years.

Teacher technology surveys administered prior to writing this plan indicated that training is needed in the following areas: effective technology integration strategies; development of standards-based, technology-rich lessons; integration of spreadsheets and databases for

problem-solving; Web-site design; integration of graphic organizers; use of video-editing software; and instructional application of blogs and wikis. Teachers also expressed a need for more time to develop and plan technology-rich lessons and to explore new applications.

## Budget

### Summary: Potential Funding Distribution

Funding Source	2007-2008	2008-2009	2009-2010	Total
010 - ADMINISTRATIVE BUDGET	\$159,881.00	\$170,209.00	\$197,409.00	\$527,499.00
390 - EXTRA GRANTS	\$289,534.00	\$308,065.00	\$0.00	\$597,599.00
424 - NCLB - Title II, Part D - Includes Enhancing Education Through Technology	\$3,883.00	\$0.00	\$0.00	\$3,883.00
eRATE	\$1,600.00	\$1,600.00	\$1,600.00	\$4,800.00
<b>TOTAL</b>	<b>\$454,898.00</b>	<b>\$479,874.00</b>	<b>\$199,009.00</b>	<b>\$1,133,781.00</b>

### Goal: Math and Reading

Students will achieve proficient and advanced levels in reading and mathematics at or above state percentage requirements.

K-12 Math Improvement Strategies	2007-2008	2008-2009	2009-2010	Total	Funding Source
Integrate Standards-Based, Technology-Rich Instruction and Collect Data.	\$4,500.00	\$4,800.00	\$5,000.00	\$14,300.00	010 - ADMINISTRATIVE BUDGET
<b>GRAND TOTAL</b>	<b>\$4,500.00</b>	<b>\$4,800.00</b>	<b>\$5,000.00</b>	<b>\$14,300.00</b>	

### Goal: Technology

Students will use technology as a tool to make informed decisions leading to high academic standards aligned with 21st Century skills.

Equip core classrooms to meet the needs of 21st Century students and teachers.	2007-2008	2008-2009	2009-2010	Total	Funding Source
Equip core classrooms with projection systems or devices.	\$4,972.00	\$3,000.00	\$0.00	\$7,972.00	010 - ADMINISTRATIVE BUDGET

Equip core classrooms with projection systems or devices.	\$24,968.00	\$16,465.00	\$0.00	\$41,433.00	390 - EXTRA GRANTS
Maintain or replace peripheral equipment.	\$8,000.00	\$7,500.00	\$7,500.00	\$23,000.00	010 - ADMINISTRATIVE BUDGET
Maintain or replace peripheral equipment.	\$3,566.00	\$2,000.00	\$0.00	\$5,566.00	390 - EXTRA GRANTS
Provide up-to-date computers replaced on a 4-year rotation basis.	\$91,909.00	\$114,909.00	\$137,909.00	\$344,727.00	010 - ADMINISTRATIVE BUDGET
Provide up-to-date computers replaced on a 4-year rotation basis.	\$255,000.00	\$289,600.00	\$0.00	\$544,600.00	390 - EXTRA GRANTS

<b>Establish Student-centered Classrooms</b>	<b>2007-2008</b>	<b>2008-2009</b>	<b>2009-2010</b>	<b>Total</b>	<b>Funding Source</b>
Provide software resources for independent learners.	\$18,000.00	\$20,000.00	\$25,000.00	\$63,000.00	010 - ADMINISTRATIVE BUDGET
Provide staff development in effective technology integration.	\$5,000.00	\$8,000.00	\$10,000.00	\$23,000.00	010 - ADMINISTRATIVE BUDGET
Provide staff development in effective technology integration.	\$3,883.00	\$0.00	\$0.00	\$3,883.00	424 - NCLB - Title II, Part D - Includes Enhancing Education Through Technology

<b>Provide a reliable network to meet the needs of 21st Century teachers and students.</b>	<b>2007-2008</b>	<b>2008-2009</b>	<b>2009-2010</b>	<b>Total</b>	<b>Funding Source</b>

Connect to Regional Wide-Area Network and Internet 2	\$1,500.00	\$1,000.00	\$1,000.00	\$3,500.00	010 - ADMINISTRATIVE BUDGET
Connect to Regional Wide-Area Network and Internet 2	\$1,600.00	\$1,600.00	\$1,600.00	\$4,800.00	eRATE
Maintain or upgrade network equipment and software.	\$6,000.00	\$0.00	\$0.00	\$6,000.00	390 - EXTRA GRANTS
Maintain or upgrade network equipment and software.	\$20,000.00	\$10,000.00	\$10,000.00	\$40,000.00	010 - ADMINISTRATIVE BUDGET
Provide reliable email service	\$6,000.00	\$1,000.00	\$1,000.00	\$8,000.00	010 - ADMINISTRATIVE BUDGET
<b>GRAND TOTAL</b>	<b>\$454,898.00</b>	<b>\$479,874.00</b>	<b>\$199,009.00</b>	<b>\$1,133,781.00</b>	

<b>TOTAL</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	
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## Monitoring

The responsibility of monitoring the implementation of the technology action plan falls on the superintendent, building principals, and the district instructional technology specialist. The district and building technology committees will assist in the monitoring process. Results will be communicated within the district through reports given at faculty and school board meetings. Technology committee members will be updated regularly on the status of the implementation process.

The district-level and building technology committees will meet annually prior to the start of the budgeting process to assess progress and determine equipment, training, and other needs to be addressed during the following fiscal year.

The building principals will monitor the implementation of the technology plan on an ongoing basis through teacher classroom observations, survey results, student test scores, and feedback from teachers, students, and parents. A standard form with a checklist and space for comments, aligned with the major goals of the plan, will be prepared and used to record the status of the process.

## Evaluation

Performance criteria for assessing the impact of technology initiatives on educational priorities and performance goals will be established cooperatively by the district administration and instructional technology specialist. We will closely monitor PSSA scores to determine whether progress is being made in meeting the state academic standards. Data will also be gathered from locally developed and PATI surveys, teacher and student feedback, and results from other formal assessments such as technology literacy tests, achievement tests, and the SATs. The district-level technology committee will review the technology plan annually to evaluate progress and amend and update as needed.

All reporting of data will be done through the principals' offices. Results will be communicated to the school board, teachers, and parents through reports at meetings and publication on the district web site.