
Pennsylvania Department of Education



Commonwealth of Pennsylvania
Department of Education
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Educational Technology Report

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Mission

Our mission is to empower our students to be lifelong learners in order to reach their greatest potential.

Vision

In keeping with our mission, a learning partnership comprised of staff, families, and the community at large will promote a collaborative spirit in a safe and secure environment to support the education of the whole child. In order to achieve these goals, we will make a commitment to:

- Provide a challenging curriculum with effective teaching
- Promote a culture of respect which values diversity
- Empower our students to develop personal integrity and accountability.

Shared Values

- We believe:

Our students are our purpose.

Our district focuses on our students and recognizes that each person has the ability to learn.

Our students are entitled to a safe, caring, learning environment.

All students want to succeed in some way and want to feel good about themselves.

All students should have the opportunity to learn using the most current material and technology available, in order to compete with the rest of the world.

All students should be encouraged to discuss their ideas and the ideas of others in the classroom instead of just rote memorization of facts.

The advancement of society depends on the development of individual talents, and that each student should be given the opportunity and resources to develop his/her talents to the utmost of their potential.

Our learning environment develops values of service, pride, excellence, and integrity.

Our students are encouraged to contribute to the community.

Our district strives for pride, excellence, and integrity.

Our heritage provides a foundation for good citizenship.

The role of all in the school community is to work cooperatively to support the needs of the students.

The partnership among the home, the school district, and the community has a direct correlation to the quality of the educational system and the experience of each student.

Every human has intrinsic value and unique gifts and talents.

Character counts and that honesty and integrity are essential to healthy relationships.

Schools are places to help all students develop and enhance their self-worth.

Students of today will live in a profoundly different future and we must address new challenges.

Global citizens require competencies in problem-solving, communication skills, technology, and teamwork.

Learning occurs within the entire school community when: (1) all who enter feel physically and emotionally safe and secure; and, (2) healthy minds and bodies are valued and encouraged.

Individuals are responsible for their choices and actions.

The family is the foundation for a successful community.

Needs Assessment

In the Fall 2010, 99 Upper Dauphin Area teachers and administrators, 33 parents and 1098 students participated in the 2010 Project Tomorrow Speak Up Survey. All totaled, Project Tomorrow surveyed 294,399 K-12 students, 42,267 parents, 35,525 teachers, 2,125 librarians, 3,578 school/district administrators and 1,391 technology leaders representing 6,541 public and private schools from 1,340 districts. Schools from urban (34 percent), suburban (29 percent) and rural (37 percent) communities are represented. Over one-half of the schools that participated in Speak Up 2010 are Title I eligible and 34 percent have a minority population of at least 50 percent. The Speak Up 2010 surveys were available online for input between October 18, 2010 and January 21, 2011. This was the most extensive survey ever undertaken by the Upper Dauphin Area School District as 88% of the K-12 student body provided input.

Upper Dauphin Area Student Participation by Grade Span

- K-2 262 students
- 3-5 236 students
- 6-8 260 students
- 9-12 340 students

Gender Distribution:

- Female 49%
- Male 51%

The Speak Up surveys included foundation questions about the use of technology for learning, 21st century skills and schools of the future, as well as emerging technologies (online learning, mobile devices and digital content), science instruction and STEM career exploration. In addition, educators shared the challenges they encounter integrating technology into their schools and districts.

National, 2010 survey results indicate that there has been a large increase in interest among students, staff, administrators and parents in mobile learning. Some of this interest has been fueled by the desire to replicate the benefits of laptop/netbook one-to-one programs such as PDE's Classrooms for the Future initiative. Additionally, as educators and parents have become mobile device users themselves, some have started to realize and/or envision the potential of these devices within instruction. While longitudinal data is not available to chart changing perceptions at UDA, its 2010 survey results indicate there is strong interest in using portable devices to facilitate 24/7 learning.

The survey examined how mobile learning could enable, engage and empower today's students as learners. Students were asked to examine the potential benefits of mobile learning and to see how the students themselves envision using these devices. The results indicate that in their "ultimate school," students see using mobile devices to both increase the effectiveness of their learning process and to also provide expanded opportunities for learning. In terms of increasing the effectiveness of their traditional school processes, Upper Dauphin Area High School students (grades 9-12) say that they would use their mobile device at school:

- to check grades 68% (compared to the national survey tally of 74 percent)
- take notes in class 65% (59 percent national survey)
- use the calendar 51% (50 percent national survey)
- learn about school activities 44% (40 percent national survey)
- access online textbooks 43% (44 percent national survey)
- send an email 39% (44 percent national survey)

Students also see the potential for mobile devices to transform and transcend learning by tapping into some of the unique features available on these devices:

- Wifi or 3G/4G capabilities allow students to do internet research (68% UDA/68% national) anytime, anywhere and without the need to be tethered to the school network or the physical space of school.
- Students could leverage the communications capabilities to collaborate with peers, teachers and even subject content experts on schoolwork using instant messaging or text messaging (62% UDA/53 percent national).
- The video and audio features allow students to create and share documents, videos or podcasts (41% UDA/37 national percent) and record lectures or experiments to review again later (44% UDA/35 percent national).

The students' strong interest in mobile learning helps to explain why 69% of Upper Dauphin Area's middle and high school students (53 percent national) say that one of the "largest obstacles" they face in using technology in their school today is their inability to use their own cell phone, smart phone or MP3 player. The survey results indicate that students have a clear vision about the potential of mobile learning to "enable, engage, and empower them as 21st century learners." The implementation of this vision will be seriously considered during the course of this 3-year-plan.

The 2010 Project Tomorrow survey has shown that interest in online learning has grown significantly in popularity over the past few years among students, educators, parents and policymakers. According to national survey results, 39 percent more administrators and five times as many parents would incorporate online classes into their vision for the ultimate school in 2010 than in 2008. This strong interest in leveraging the power of online learning through self-study online courses, teacher-led online classes as well as blended/hybrid learning environments has translated into more online learning experiences than ever before for middle and high school students as noted in the this year's Speak Up results. A similar interest has been noted by Upper Dauphin Area administrators and parents. The District will seek to expand online and blended opportunities available to its students.

Another trend that emerged through this year's survey is the use of digital or e-textbooks. Various stakeholders seem excited about the prospect of digital textbooks for a variety of reasons. Policymakers and administrators are intrigued with the opportunity to leverage existing technology and to lower (or even eliminate) the costs associated with traditional textbooks. Parents are motivated by their concerns about the weight of student backpacks and the idea of increasing student engagement and achievement. And students envision this new kind of textbook as the gateway to a rich and interactive set of digital content and resources. Despite all of this attention and interest, the actual use of digital or e-textbooks is still an emerging trend in most schools and communities. According to the Speak Up 2010 results, only about a quarter of middle school students (27 percent national/9% UDA) and a third of high school students (35

percent/16% UDA) say that they are currently using online textbooks or other online curriculum as part of their regular schoolwork.

Survey results indicate that a majority of Upper Dauphin Area students in grades three through twelve believe e-textbooks are an essential component of their ultimate school:

- Gr 3-5 55%/48 percent national
- Gr 6-8 51%/53 percent national
- Gr 9-12 56%/55 percent national

This year's Speak Up surveys polled students and parents on their preferred set of features and functionality for this new kind of textbook. The student version of an e-textbook would feature socially-based learning, untethered learning and digitally rich content. While the national survey reveals some gender differences between girls and boys about their desired features, what is more interesting to note is the disconnect between parents and students regarding the priority of different interactive activities. For example, the parents are more interested than the students on features such as animations and simulations (67percent national/60% UDA), links to real time data (59 percent national/48% UDA), quizzes and self-assessment tests to evaluate progress (67 percent national/72% UDA) and online tutors (57 percent national/60% UDA). Middle School students, however, place a higher premium than their parents on using communications and collaboration applications (46% UDA/40 percent national), access to 3D content (37% UDA/36 percent national) and anything that allows for mobile capability (38% UDA/50 percent national).

Goals and Strategies

Goal: 21st Century Learners

Description: All students will learn technology skills and practice ethical use of technologies to become more productive and efficient learners in preparation for the 21st Century workplace which will then empower them to become collaborative workers, thinkers, and evaluators of information and to expand learning opportunities that promotes student and teacher creativity and critical thinking.

Strategy: Design Learning Experiences which Foster 21st Century Skills

Description: Teachers will design learning experiences that foster the development of critical thinking, 21st century skills and responsibility for learning, which lead to lifelong learning.

Activity: Authentic Assignments

Description: Teachers will use assignments and projects that are more authentic and “real world” in nature, as opposed to more “artificial” activities that are generally only found in schools.

Activity: Critical Thinking Skills

Description: Teachers will engage students in activities requiring higher order thinking.

Activity: Shift Pedagogy

Description: A change in teaching practices from didactic toward more student-centered approaches will take place.

Strategy: Student Technology Assessments

Description: Student technology skills assessments will be developed and utilized to determine the success of the integrated technology lesson plans, as well as assessing individual student's skills.

Activity: Assessment Tools

Description: An assessment tool will be purchased and implemented to record student technology skill progress levels to ensure standardization.

Activity: Learning Outcome

Description: Students will be assessed on eight learning outcomes- curricular literacy (content standards), collaboration, critical thinking, oral communication, written communication, career preparation, citizenship and ethics, and technology literacy.

Goal: District Technology Planning

Description: Administrators will review existing district technologies and keep them current with prevailing K-12 technology standards.

Strategy: Create a Technology & Curriculum Advisory Council

Description: This advisory committee will be made up of teachers, administrators, students and other stakeholders who have an interest in technology and how it can be used to enhance learning. Blended learning and classroom use of student mobile devices are examples of the topics this group will study.

Activity: Establish a Meeting Schedule

Description: Quarterly meetings will be held with interim meetings scheduled as necessary. Online learning and classroom use of student mobile devices are examples of the topics this group will study.

Strategy: Develop a Tech Maintenance Plan

Description: Develop a hardware and software evaluation procedure and an on-line repair form to support both operational and educational needs of the district.

Activity: Inventory Control

Description: Technology coordinators will maintain up-to-date inventory of hardware and software and report as needed to appropriate administrators and/or school board.

Activity: Use Technology to Maintain and Manage Technology

Description: An online repair/maintenance request form will be created.

Strategy: Keeping Decision-Makers Informed

Description: The school board and administrative team will be kept current as to the status of technology used in the district.

Activity: Meet with School Board

Description: The district technology coordinators will meet annually with the school board to present the district's current technology status and to make recommendations for future improvements.

Activity: Tech Coordinators Meeting

Description: Administrators and other district technology leaders, including Tech Lead teachers, will meet and discuss annual technology goals.

Strategy: Technology Policies

Description: Technology policies will be established and reviewed on a regular basis.

Activity: Acceptable Use Policy

Description: The District's Acceptable Use Policy will be reviewed annually and updated as necessary.

Activity: Home Loan Policies

Description: Hardware/software home loan policies for staff and students will be reviewed and updated.

Activity: Remote Access Policies

Description: A policy for remote access of the district LAN and use of its software will be developed and updated as needed.

Goal: Implement Technology-Based Lesson Plans

Description: Educators will enrich the teaching process, learning environment and curriculum by implementing technology-based, standards-aligned, lesson plans.

Strategy: Tech Lesson Plans

Description: Technology lesson plans will be reviewed and revised and new lessons will be developed in all areas of the K-12 curriculum.

Activity: Require Tech Lesson Plans

Description: All teachers will be required to submit two technology lessons per semester.

Activity: Sharing and Collaboration

Description: Technology lesson plans will be shared on platforms such as the school district website and shared network folders. Use of web 2.0 collaboration tools such as wikis and those

available on PDE's SAS will also be promoted as a means to facilitate the development of technology-based lessons.

Activity: Teacher Train the Teacher Model

Description: Tech Lead Teachers will team teach or mentor other teachers when necessary to assist or model the delivery of technology-based lessons.

Goal: Innovative Technologies

Description: Innovative technologies will be used to assist staff and students to meet District, educational goals.

Strategy: Aids to Learning

Description: Equipment, software and services which assist learning and enhance the classroom experience will be maintained and/or updated.

Activity: Audio-Visual Aids to Learning

Description: Audio-visual equipment and services will be maintained and updated as needed.

Activity: Closed-Circuit Television

Description: A closed-circuit television system will be established in the elementary, middle school and high school. Its primary use will be to present student-produced broadcasts. Existing CATV cabling and/or ethernet wiring will be used to deliver this content.

Activity: Content delivery

Description: Services for cable television, video conferencing and video content (i.e. Safari, Discovery Education) will be maintained unless other technologies allow the same content to be delivered more reliably and/or affordably.

Activity: Current Trends

Description: Use of video game simulations, blogs, chats and other popular technology will be explored as a means to deliver curriculum to Upper Dauphin Area students.

Activity: Distance Learning Opportunities

Description: Opportunities for distance learning courses, electronic field trips, and professional development will be maintained or established for use by students, staff and community groups.

Activity: Equipment upgrades & replacement

Description: Equipment/hardware used to deliver audio-visual content and services (i.e. televisions/monitors, DVD/VHS players, LCD projectors, overhead projectors) will be upgraded/recycled as needed.

Goal: Membership in the regional fiber network

Description: The Upper Dauphin Area School District will become a full participant in the Capital Area Wide Area Network, a vehicle that will transform the delivery of educational content available to students and staff.

Strategy: Increase Bandwidth and Content Delivery Options

Description: The District will utilize e-Rate and other funding sources to ensure its bandwidth capability is sufficient to access and/or deliver content available via the WAN.

Activity: Hardware/Network Infrastructure/Bandwidth

Description: Video conferencing hardware will be updated as needed. Network infrastructure will be updated as needed in order to ensure the delivery of content which becomes available on the web or through the WAN. Bandwidth use will be monitored and increased as need dictates.

Goal: School Security & Communication

Description: The District will use technology to improve security within the schools and communication between the schools and their various stakeholders.

Strategy: Necessary equipment and services will be secured

Description: Research of products and services available to enhance security and communication will be conducted in order to make an informed purchase.

Activity: Building Access

Description: The system of staff access into all district buildings will be maintained and updated as needed. Access will be gained through use of a card reader, biometric system and/or other reliable technologies

Activity: District Telephone System

Description: A digital, ip-based telephone system will be installed in all schools and offices. It will provide the District with features such as caller ID and message recording as well as access to 911.

Activity: Emergency Notification

Description: Instant messaging and other instant notification systems (i.e. Alertnow, e-mail, Twitter) will be used to notify parents and staff members of emergency situations including snow delays and school cancellations. Such systems will also be used to relay routine information such as general school news, reminder notifications and student absence notifications.

Activity: Mobile Communication

Description: Mobile technologies such as cell phones and two-way radios will be maintained or replaced, as needed, with the latest communication devices.

Activity: Student & Staff Identification

Description: Technological means to identify student and staff for purposes such as gaining building access, making cafeteria food purchases or borrowing library books will maintained and updated as needed.

Activity: Video Surveillance

Description: A video surveillance system will be maintained and/or expanded throughout the District's offices and schools. This will be done to curtail misconduct, entrance into unauthorized areas, vandalism and related problems as well as regulate entrance into all district school buildings.

Goal: Technology Training and Leadership

Description: Technology training opportunities for all professional staff will be offered and conducted by technology coordinators, Tech Lead Teachers and outside resources.

Strategy: Leadership & Modeling

Description: Administrators will use and model the use of technology during the performance of their respective duties.

Activity: Administrative Technology Tools

Description: All administrators will be equipped with updated hardware and software to use and model in the performance of their job responsibilities.

Activity: Administrative Technology Training

Description: District administrators will be provided necessary training to utilize current hardware and software.

Activity: Technology-related Professional Development for Administrators

Description: Administrators will attend technology-related professional conferences and workshops.

Strategy: Professional Development

Description: Technology training opportunities for all professional staff will be provided through in-service workshops, conferences and/or courses available through the UDASD, PDE, colleges and universities, and other entities.

Activity: In-Service Technology Training

Description: The District will devote at least one in-service day each school year for technology training.

Activity: Online Professional Development

Description: Online professional development opportunities offered through PDE, IU 15 and other providers will be encouraged.

Activity: Scheduling Tech Training Time

Description: Time will be provided within the teaching schedules of the professional staff to learn and practice necessary technology skills.

Activity: School Based Training

Description: Evening, weekend and summer technology training sessions will be offered by the technology consultants, tech lead teachers and/or other providers qualified to offer this training.

Activity: Tech Conferences and Workshops

Description: Technology coordinators, Tech Lead Teachers and other professional staff will be provided the opportunity to attend conferences, workshops and meetings pertaining to technology.

Activity: Tech Lead Teachers

Description: Tech Lead Teachers will be paid an annual stipend to provide technology training, troubleshooting and mentoring.

Strategy: Staff Needs Assessments

Description: Professional staff needs assessments for technology training will be conducted during the school year.

Activity: District Technology Leaders To Help Shape Training

Description: District Tech Lead Teachers and administrators will plan technology training for professional teaching staff based on casual feedback, observation and staff needs assessment results.

Activity: Web-Based Tech Surveys

Description: Web-based technology training needs assessment surveys will be developed. The surveys will be accessed through links found on the school district web page and/or district e-mail. Use of open source tools such as Google Docs will be promoted.

Goal: Use Technology to Allow Students to Master Skills Needed For Success in the 21st Century

Description: All students will be provided technology access and opportunities to acquire the technology skills necessary for success in the 21st Century workplace.

Strategy: Maintain and Update Technology Resources

Description: The Upper Dauphin Area School District will maintain and update hardware available for student and staff use.

Activity: Home Access

Description: The district will purchase virtualization software and necessary hardware needed to allow students 24/7 access to school-based software applications and network files.

Activity: Increase accessibility to Computers

Description: Increase student accessibility to computers through the use of mobile laptop carts and/or the creation of an additional computer labs/learning centers available where space allows. Student use of mobile devices will be encouraged.

Activity: Interactive whiteboards

Description: SMART Boards or similar technology will be installed in 3-4 classrooms of each school building during each year of this plan.

Activity: Miscellaneous Hardware and Equipment

Description: Additional miscellaneous hardware will be purchased including printers, science probes, student response systems, graphing calculators, headsets, microphone, digital cameras, digital video cameras and other equipment used to support daily instruction.

Activity: Utilization of Thin Client/Virtualization Technology

Description: The use of thin client/n-computing and/or virtual devices will be purchased to facilitate the integration of technology into the classroom.

Strategy: Maintain and Upgrade Software

Description: The District will maintain and update software licensing and/or purchase new software as needed.

Activity: Open Source Software

Description: Use of open source software which supports Upper Dauphin Area's curriculum will be explored and/or maintained.

Activity: Web-based Subscriptions

Description: Subscriptions to web-based services (i.e. Study Island) which support Upper Dauphin Area's curriculum will be explored and/or maintained.

Strategy: Network Infrastructure

Description: The District will maintain and upgrade the LAN infrastructure and internet bandwidth as needed.

Activity: LAN Hardware

Description: Purchase replacement hardware and/or upgrade existing equipment including switches, cabling, routers, servers, backup devices, power supplies and miscellaneous devices as needed.

Activity: LAN Software

Description: Purchase new software or updates to existing network software including support contracts for licensing and upgrades as needed.

Strategy: Special Needs

Description: Students with special needs will be provided with specific technology tools to facilitate learning.

Activity: Hardware, Software & Peripherals

Description: Purchase hardware, software and peripherals needed to support the individualized education plan of all students with special needs.

Goal: Use Technology to Implement Standards-Based Instruction

Description: To support the implementation of standards-based instruction and continued school improvement through the integration of technology into the curriculum and operational aspects of the district.

Strategy: Grades 3-6 Technology Goals

Description: Prior to the completion of Grade 6 all students should have opportunities to demonstrate the following performances: 1. Use keyboards and other common input and output devices (including adaptive devices when necessary) efficiently and effectively. (1) 2. Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide. (1, 2) 3. Discuss basic issues related to responsible use of technology and information and describe personal consequences of inappropriate use. (2) 4. Use general purpose productivity tools and peripherals to support personal productivity, remediate skill deficits, and facilitate learning throughout the curriculum. (3) 5. Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom. (3, 4) 6. Use telecommunications efficiently and effectively to access remote information, communicate with others in support of direct and independent learning, and pursue personal interests. (4) 7. Use telecommunications and online resources (e.g., e-mail, online discussions, Web environments) to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom. (4, 5) 8. Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities. (5, 6) 9. Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems. (5, 6) 10. Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources. (6) Numbers in parentheses following each performance indicator refer to the standards category to which the performance is linked. The categories are: 1. Basic operations and concepts 2. Social, ethical, and human issues 3. Technology productivity tools 4. Technology communications tools 5. Technology research tools 6. Technology problem-solving and decision-making tools.

Activity: Grades 3-6 Skills

Description: Third Grade

Demonstrate appropriate home row keyboarding technique.
Demonstrate the use of the tab key.
Demonstrate the ability to set and modify line spacing
Demonstrate the ability to use various SELECT and SELECT ALL features.
Demonstrate the ability to use the spelling and grammar checker
Demonstrate the ability to use the thesaurus and spell checker.
Demonstrate the ability to close and reveal various toolbars
Demonstrate the ability to modify information within a document.
Demonstrate the ability to modify colors.
Demonstrate the ability to draw lines and shapes

Fourth Grade

Demonstrate appropriate keyboarding techniques
Demonstrate the ability to use SHIFT key combinations
Demonstrate the ability to create columns
Demonstrate the ability to use short cut keys for various commands
Demonstrate the ability to set margins
Demonstrate the ability to use WordArt
Demonstrate the ability to align objects within a document.
Demonstrate the ability to edit projects
Demonstrate the ability to use the menu bar to change font attributes
Demonstrate the ability to change colors.
Demonstrate the ability to modify font size and style
Demonstrate the ability to use the copy, paste, and cut functions
Demonstrate the ability to drag text to a new location
Demonstrate the ability to center a title
Demonstrate the ability to use the alignment functions (center, right, left)

Fifth Grade

Demonstrate keyboarding skills using appropriate techniques
Demonstrate the ability to insert headers and footers
Demonstrate the ability to search and replace text
Demonstrate the ability to change the case of text
Demonstrate the ability to adjust margins
Demonstrate the ability to insert page numbers in a document.
Demonstrate the ability to create a numbered list
Demonstrate the ability to add and move the shapes behind and in front of text.
Demonstrate the ability to insert clip art from a file or the Internet
Demonstrate the ability to use various search techniques
Identify and use various search engines
Using the Internet, demonstrate the ability to research data to solve problems.
Demonstrate the ability to insert a chart and a table
Demonstrate the ability to find specific information
Demonstrate their understanding of the Acceptable Use Policy (AUP)
Explain the differences between non-networked and networked computers

Sixth Grade

Demonstrate keyboarding skills using appropriate techniques
Demonstrate the ability to insert a chart
Demonstrate the ability to import an object from a file
Demonstrate the ability to insert a table
Demonstrate the ability to create a publication using a blank form
Demonstrate the ability to access book marked sites

Demonstrate the ability to forward and reply to messages
Using the Internet, demonstrate the ability to research data to solve a given problem.
Develop a multimedia presentation for a specific class project and present it to a group.

Strategy: Grades 7-12 Technology Goals

Description: All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 12 students will: 1. Identify capabilities and limitations of contemporary and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. (2) 2. Make informed choices among technology systems, resources, and services. (1, 2) 3. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole. (2) 4. Demonstrate and advocate for legal and ethical behaviors among peers, family, and community regarding the use of technology and information. (2) 5. Use technology tools and resources for managing and communicating personal/professional information (e.g., finances, schedules, addresses, purchases, correspondence). (3, 4) 6. Evaluate technology-based options, including distance and distributed education, for lifelong learning. (5) 7. Routinely and efficiently use online information resources to meet needs for collaboration, research, publication, communication, and productivity. (4, 5, 6) 8. Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning. (4, 5) 9. Investigate and apply expert systems, intelligent agents, and simulations in real-world situations. (3, 5, 6) 10. Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works. (4, 5, 6) Numbers in parentheses following each performance indicator refer to the standards category to which the performance is linked. The categories are: 1. Basic operations and concepts 2. Social, ethical, and human issues 3. Technology productivity tools 4. Technology communications tools 5. Technology research tools 6. Technology problem-solving and decision-making tools.

Activity: Grades 7-12 Skills

Description: Skills for All Content Areas: Practice Safe, responsible, and ethical behavior in using technology resources and information; Identify issues surrounding complex technology environments; Practice and refine knowledge and skills in keyboarding/word processing/desktop publishing, spreadsheets, databases, multimedia, and telecommunications in preparing classroom assignments and projects; Select and use appropriate technology tools to efficiently collect, analyze, and display data.

Content Specific Skills

Arts Education (Dance, Music, Theatre Arts, Visual Arts): Select and use appropriate technology tools to efficiently collect, analyze, and display data; Select and use appropriate technologies as a means of artistic expression; Use electronic resources for research; Use technological tools for class assignments, projects, and presentations; Adhere to Fair Use and Multimedia Copyright Guidelines, citing sources of copyrighted materials in papers, projects, and multimedia presentations.

English: Use word processing and/or desktop publishing for a variety of writing assignments/projects; Use electronic resources for research; Select and use technological tools for class assignments, projects, and presentations; Adhere to Fair Use and Multimedia Copyright Guidelines, citing sources of copyrighted materials in papers, projects, and multimedia

presentations.

Foreign Languages: Select and use appropriate technologies to communicate in other languages with other cultures; Select and use technological tools for class assignments, projects, and presentations; Adhere to Fair Use and Multimedia Copyright Guidelines, citing sources of copyrighted materials in papers, projects, and multimedia presentations.

Health/Physical Education: Select and use appropriate technology tools to efficiently collect, analyze, and display data; Use technology for experiments and/or research; Use electronic resources for research; Select and use technological tools for class assignments, projects, and presentations; Adhere to Fair Use and Multimedia Copyright Guidelines, citing sources of copyrighted materials in papers, projects, and multimedia presentations.

Mathematics: Select and use appropriate technology tools to efficiently collect, analyze, and display data; Use spreadsheets to solve problems and display data; Use a calculator, scientific calculator, or graphing calculator for problem-solving; Select and use technological tools for class assignments, projects, and presentations; Adhere to Fair Use and Multimedia Copyright Guidelines, citing sources of copyrighted materials in papers, projects, and multimedia presentations.

Science: Use scientific instruments to perform experiments; Use appropriate technology tools to efficiently collect, analyze, and display data; Use electronic resources for research; Use spreadsheets and/or databases to collect, record, analyze, and present data; Select and use technology tools for class presentations; Adhere to Fair Use and Multimedia Copyright Guidelines, citing sources of copyrighted materials in papers, projects, and multimedia presentations.

Social Studies: Select and use appropriate technology tools to efficiently collect, analyze, and display data; Use databases to collect, record, analyze, and display data; Use electronic resources for research; Select and use technological tools for class assignments, projects, and presentations; Adhere to Fair Use and Multimedia Copyright Guidelines, citing sources of copyrighted materials in papers, projects, and multimedia presentations.

Career-Technical Education (Agricultural Education, Business and Marketing, Industrial Technology, Building Trades, Guidance): Select and use appropriate technologies to prepare for the workplace; Use electronic resources for research; Select and use technological tools for class assignments, projects, and presentations; Adhere to Fair Use and Multimedia Copyright Guidelines, citing sources of copyrighted materials in papers, projects, and multimedia presentations.

Strategy: Grades K-2 Student Technology Goals

Description: Prior to the completion of Grade 2 all students should have opportunities to demonstrate the following performances: 1. Use input devices (e.g., mouse, keyboard, remote control) and output devices (e.g., monitor, printer) to successfully operate computers, VCRs, audiotapes, and other technologies. (1) 2. Use a variety of media and technology resources for directed and independent learning activities. (1, 3) 3. Communicate about technology using developmentally appropriate and accurate terminology. (1) 4. Use developmentally appropriate multimedia resources (e.g., interactive books, educational software, elementary multimedia encyclopedias) to support learning. (1) 5. Work cooperatively and collaboratively with peers, family members, and others when using technology in the classroom. (2) 6. Demonstrate positive social and ethical behaviors when using technology. (2) 7. Practice responsible use of technology systems and software. (2) 8. Create developmentally appropriate multimedia products with

support from teachers, family members, or student partners. (3) 9. Use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories. (3, 4, 5, 6) 10. Gather information and communicate with others using telecommunications, with support from teachers, family members, or student partners. (4) Numbers in parentheses following each performance indicator refer to the standards category to which the performance is linked. The categories are: 1. Basic operations and concepts 2. Social, ethical, and human issues 3. Technology productivity tools 4. Technology communications tools 5. Technology research tools 6. Technology problem-solving and decision-making tools

Activity: K-2 Skills

Description: Kindergarten

Identify the physical components of a computer system (monitor, keyboard, etc.)
Demonstrate the ability to turn on and off a computer
Demonstrate the ability to launch and exit software
Locate and use letters, numbers, and special keys on a keyboard
Demonstrate appropriate mouse manipulation
Place the cursor at a specified location
Demonstrate the ability to use a mouse to select words
Demonstrate the ability to type words and numbers

First Grade

Identify basic word processing terms.
Identify the various punctuation marks and symbols on the keyboard.
Locate and use appropriate letters, numbers, and special keys on a keyboard.
Demonstrate the ability to open and create a new document.
Demonstrate the ability to use the space bar to separate words.
Demonstrate the ability to input text and use word wrap features.
Demonstrate the ability to delete text (backspace and delete keys).
Demonstrate the ability to insert letters in a word.
Demonstrate the ability to use the shift key and special characters.
Demonstrate the ability to use the MENU BAR and make appropriate selections.
Demonstrate the ability to save a document (SAVE and SAVE AS).
Demonstrate the ability to launch, run and exit appropriate programs

Second Grade

Demonstrate the ability to retrieve an existing document.
Demonstrate the ability to change font styles and sizes.
Demonstrate the ability to use the undo feature.
Demonstrate the ability to align text (right, left, center).
Demonstrate the ability to preview a document.
Demonstrate the ability to insert clip art.
Demonstrate the ability to change the size and relocate a graphic.
Demonstrate the ability to draw lines and create shapes.
Demonstrate the ability to save a document (SAVE and SAVE AS).
Create and print a simple project.
Demonstrate the ability to launch, run and exit appropriate programs.
Demonstrate the ability to access the Internet using a browser.
Access and navigate sites using hyperlinks.
Access and navigate sites using the BACK, FORWARD, & HOME icons.

Strategy: Technological Support of the K-12 Curriculum

Description: Technology which supports the K-12 curriculum will implemented, maintained and updated as needed.

Activity: Assessment & Reform

Description: Technology will be used to align curriculum to Pennsylvania's Academic Standards, to analyze local and state assessments, and to make necessary adjustments when data analysis reveals weakness in the K-12 curriculum.

Activity: Curriculum Revision

Description: Technology initiatives (i.e. introducing a CNC lathe in technology education courses) which lead to curriculum revision will be approved by the appropriate supervisor, department, or any future-established districtwide curriculum council. Proposed technology budget items will be reviewed annually.

Goal: Use Technology to Improve Communication and Increase Efficiency

Description: All educators will effectively use technology to improve communication with parents and students and to increase classroom management efficiency and productivity.

Strategy: District Web Site

Description: The District web site will be updated continuously allowing it to become a gateway to a variety of educational resources and information. It will become a "go-to" portal for all District stakeholders.

Activity: District Office Web Page

Description: The district office will maintain a web page which will include information regarding current district initiatives, school board briefs and meeting agendas, business office news, and other information regarding events and news having district-wide implications.

Activity: Forms

Description: Commonly used forms will be available for download through links on the district web page. Forms which can be completed online and submitted electronically will be developed.

Activity: Parent and Staff Resource Pages

Description: A Staff Resource page and a Parent Resource page will be maintained and updated with links to current educational resources available on the world wide web. Examples will be links to PDE and parent tips regarding "surfing the web safely."

Activity: School Events Pages

Description: The elementary, middle and high schools will maintain individual school web page(s) listing a calendar of events, newsletters, course of studies, daily announcements, homework and other information important to the daily operation of the schools.

Strategy: Research New Technologies

Description: District administrators and technology coordinators will research and implement new technologies and methods to improve communication, classroom management and productivity.

Activity: Cafeteria System

Description: A web-based cafeteria system will be implemented allowing parents to manage their child's cafeteria accounts online.

Activity: Technology

Description: The use of applications or "apps" for mobile devices, communication software which allows video conferencing and all other technology which may become available in the future which facilitates efficiency and communication will be considered for use in Upper Dauphin Area schools.

Activity: Transportation

Description: Transfinder software will be used to plan transportation routes, driver schedules, bus rosters, and other record-keeping and communication needs of this office.

Budget

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	\$198,050.00	\$157,050.00	\$159,050.00	\$514,150.00
212 - PA Accountability Grants	\$3,500.00	\$3,500.00	\$3,500.00	\$10,500.00
421 - NCLB - Title II, Part A - Includes Improving Teacher Quality, Eisenhower Professional Development, Class Size Reduction	\$4,500.00	\$4,500.00	\$4,500.00	\$13,500.00
520 - IDEA - REGULAR IDEA, PART B (include Section 611 revenue)	\$5,300.00	\$5,300.00	\$5,300.00	\$15,900.00
eRATE	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00
Grand Total	\$214,950.00	\$173,950.00	\$175,950.00	\$564,850.00

Goal: Innovative Technologies

Innovative technologies will be used to assist staff and students to meet District, educational goals.

Aids to Learning	2012-2013	2013-2014	2014-2015	Total	Funding Source
Audio-Visual Aids to Learning	\$15,000.00	\$15,000.00	\$15,000.00	\$45,000.00	010 - ADMINISTRATIVE BUDGET
Closed-Circuit Television	\$1,500.00	\$500.00	\$500.00	\$2,500.00	010 - ADMINISTRATIVE BUDGET
Content delivery	\$800.00	\$800.00	\$800.00	\$2,400.00	010 - ADMINISTRATIVE BUDGET
Distance Learning Opportunities	\$20,000.00	\$20,000.00	\$20,000.00	\$60,000.00	010 - ADMINISTRATIVE BUDGET
Equipment upgrades & replacement	\$3,500.00	\$3,500.00	\$3,500.00	\$10,500.00	010 - ADMINISTRATIVE BUDGET
Subtotal	\$40,800.00	\$39,800.00	\$39,800.00	\$120,400.00	

Goal: School Security & Communication

The District will use technology to improve security within the schools and communication between the schools and their various stakeholders.

Necessary	2012-2013	2013-2014	2014-2015	Total	Funding Source
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equipment and services will be secured

District Telephone System	\$40,000.00	\$0.00	\$0.00	\$40,000.00	010 - ADMINISTRATIVE BUDGET
Emergency Notification	\$2,400.00	\$2,400.00	\$2,400.00	\$7,200.00	010 - ADMINISTRATIVE BUDGET
Mobile Communication	\$6,600.00	\$6,600.00	\$6,600.00	\$19,800.00	010 - ADMINISTRATIVE BUDGET
Mobile Communication	\$3,600.00	\$3,600.00	\$3,600.00	\$10,800.00	eRATE
Video Surveillance	\$500.00	\$500.00	\$500.00	\$1,500.00	010 - ADMINISTRATIVE BUDGET
Subtotal	\$53,100.00	\$13,100.00	\$13,100.00	\$79,300.00	

Goal: Technology Training and Leadership

Technology training opportunities for all professional staff will be offered and conducted by technology coordinators, Tech Lead Teachers and outside resources.

Professional Development	2012-2013	2013-2014	2014-2015	Total	Funding Source
Tech Conferences and Workshops	\$3,500.00	\$3,500.00	\$3,500.00	\$10,500.00	212 - PA Accountability Grants
Tech Lead Teachers	\$4,500.00	\$4,500.00	\$4,500.00	\$13,500.00	421 - NCLB - Title II, Part A - Includes Improving Teacher Quality, Eisenhower Professional Development, Class Size Reduction
Subtotal	\$8,000.00	\$8,000.00	\$8,000.00	\$24,000.00	

Goal: Use Technology to Allow Students to Master Skills Needed For Success in the 21st Century

All students will be provided technology access and opportunities to acquire the technology skills necessary for success in the 21st Century workplace.

Maintain and Update Technology Resources	2012-2013	2013-2014	2014-2015	Total	Funding Source
Home Access	\$1,250.00	\$1,250.00	\$1,250.00	\$3,750.00	010 - ADMINISTRATIVE BUDGET
Interactive whiteboards	\$37,000.00	\$37,000.00	\$37,000.00	\$111,000.00	010 - ADMINISTRATIVE BUDGET
Maintain and Upgrade Software	2012-2013	2013-2014	2014-2015	Total	Funding Source
Web-based Subscriptions	\$55,000.00	\$55,000.00	\$55,000.00	\$165,000.00	010 - ADMINISTRATIVE BUDGET

Network Infrastructure	2012-2013	2013-2014	2014-2015	Total	Funding Source
LAN Hardware	\$8,000.00	\$8,000.00	\$10,000.00	\$26,000.00	010 - ADMINISTRATIVE BUDGET
LAN Software	\$3,000.00	\$3,000.00	\$3,000.00	\$9,000.00	010 - ADMINISTRATIVE BUDGET
Special Needs	2012-2013	2013-2014	2014-2015	Total	Funding Source
Hardware, Software & Peripherals	\$5,300.00	\$5,300.00	\$5,300.00	\$15,900.00	520 - IDEA - REGULAR IDEA, PART B (include Section 611 revenue)
Subtotal	\$109,550.00	\$109,550.00	\$111,550.00	\$330,650.00	

Goal: Use Technology to Improve Communication and Increase Efficiency

All educators will effectively use technology to improve communication with parents and students and to increase classroom management efficiency and productivity.

Research New Technologies	2012-2013	2013-2014	2014-2015	Total	Funding Source
Transportation	\$3,500.00	\$3,500.00	\$3,500.00	\$10,500.00	010 - ADMINISTRATIVE BUDGET
Subtotal	\$3,500.00	\$3,500.00	\$3,500.00	\$10,500.00	
Grand Total	\$214,950.00	\$173,950.00	\$175,950.00	\$564,850.00	

Staff Development

A Technology Lead Teacher system will be piloted during the 2012-2013, school year. Teachers identified as *Tech Lead Teachers* will be recruited and selected by each building principal based upon a teacher's technical expertise and successful experience incorporating technology into their classrooms. During the school year, the tech lead teachers will meet with their assigned group (approximately 10 teachers) during in-service days or after school to discuss how to infuse technology into their curricula. Teachers also meet with their tech lead teacher during their planning period or lunch period. The tech lead teachers provide their teams with curriculum ideas on how to use technology and help them to locate internet resources designed to enrich their lessons. During the school year, the tech lead teachers are responsible for training their groups on new software applications and/or hardware the school will be or has already implemented.

In addition to this system, the District will continue to make effective use of training offered by various textbook, software and hardware vendors as well as the training services offered by PDE and regional intermediate units, including the Capital Area IU 15.

UDASD's administrators routinely use technology in the performance of their job responsibilities. Administrative use, or modeling of technology, will help promote the use of technology among our professional and non-professional staff.

Technology integration has been identified as an Action Plan in the UDASD Professional Education Plan. The integration of technology into the curriculum will be promoted and supported. Technology training opportunities for all professional staff will be offered and conducted by administrators, technology coordinators, tech lead teachers and outside resources. The aforementioned will team teach and/or mentor other teachers when necessary to assist or model the delivery of technology- based lessons.

Professional staff needs assessments for technology training will be conducted during the school year. Administrators and other district technology leaders, including tech lead teachers, will meet and discuss annual technology goals. The school district website (www.udasd.org) *Staff Resource Page* will allow teachers to share and collaborate through popular methods of online communication, including virtual chats, message boards and blogging. Links to current educational resources, including technology lesson plans, will be updated and readily available.

Monitoring

The Superintendent is responsible for overseeing the implementation of the district technology plan with the assistance of the building principals, the district technology technicians, Tech Lead Teachers and librarians. Feedback regarding the plan's progress, as well as current needs, will be solicited from stakeholders through informal communication as well as through formal means including observation and surveys. Monthly Tech Lead Teacher meetings, department meetings, building staff meetings, administrative team meetings and quarterly Curriculum Council meetings will also provide a means for feedback regarding the district's progress in implementing our technology education plan. We will communicate progress on the goals and objectives in the Technology Plan to all stakeholders through district publications/e-publications, building newsletters and the district website. In addition, yearly progress reports and presentations will be made to the board of education at public board meetings.

Evaluation

The Superintendent and building principals will be responsible for evaluating the impact of the technology goals, strategies, and activities. Data will be gathered through annual surveys regarding student, teacher, and administrator technology knowledge. Formal staff observation, regular walk-through observations, team-teaching and mentoring opportunities will be among the avenues used to gauge how effectively technology is being integrated into our curriculum. Teachers will assess students' technology skills using assessment tools incorporated into our K-12 curriculum. The ultimate goal of our educational technology plan is to improve student achievement. Increased scores on local, state and national assessments, improved attendance and graduation rates, and positive feedback from climate surveys and other assessment tools, will be quantitative evidence of the effectiveness of our plan.