

LOWER TOWNSHIP SCHOOL DISTRICT
CAPE MAY, NEW JERSEY

EDUCATIONAL TECHNOLOGY PLAN
2013- 2016



THREE-YEAR OPERATIONAL PLAN

COMPILED BY:
SABINA MULLER, SUPERVISOR OF CURRICULUM AND INSTRUCTION
APRIL 2013

APPROVED BY THE BOARD OF EDUCATION: 04/23/2013

THREE-YEAR LOCAL SCHOOL DISTRICT TECHNOLOGY PLAN TEMPLATE (2013-2016)

SECTION I: STAKEHOLDERS

STAKEHOLDER TABLE		
TITLE	NAME	SIGNATURE
SUPERINTENDENT	GEORGE DROZDOWSKI	
PRINCIPAL	BARBARA DALRYMPLE SANDMAN SCHOOL	
PRINCIPAL	DENISE LABOV MAUD ABRAMS SCHOOL	
PRINCIPAL	SHELLEYMARIE MAGAN, ED. D. CARL T. MITNICK SCHOOL	
PRINCIPAL	SHERRY BOSCH DOUGLASS MEMORIAL SCHOOL	
SUPERVISOR OF SPECIAL SERVICES	LEESA CARLIN	
SUPERVISOR OF CURRICULUM INSTRUCTION/CURRICULUM COMMITTEE MEMBER	SABINA MULLER	
TECHNOLOGY COORDINATOR	FRANK ONORATO	
TEACHER	TED CAWLEY SANDMAN SCHOOL	
TEACHER	KAREN SMITH MAUD ABRAMS SCHOOL	
TEACHER	SHARON SPRIGGS CARL T. MITNICK SCHOOL	
SPECIAL EDUCATION TEACHER	JEANNE OETTING SANDMAN SCHOOL	
LIBRARY/MEDIA SPECIALIST	NORMA SHROPSHIRE MAUD ABRAMS SCHOOL	
GUIDANCE	MAGGIE LUDGATE SANDMAN SCHOOL	
BOARD MEMBER	JOSEPH JACKSON	
PARENT	HEATHER SEKELA SANDMAN SCHOOL	
STUDENT	ASHLYN SEKELA MAUD ABRAMS SCHOOL	
COMMUNITY MEMBER	JANET HERMAN VOLUNTEER COORDINATOR	
BUSINESS SECTOR REPRESENTATIVE	GEOFFREY HARRISON STURDY BANK	

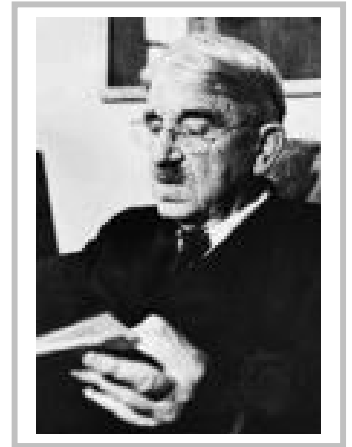
Section II: Executive Summary

“If we teach today as we taught yesterday,
we rob our children of tomorrow.”

John Dewey (1859-1952)



Leader of the progressive movement
in **education** in the United States

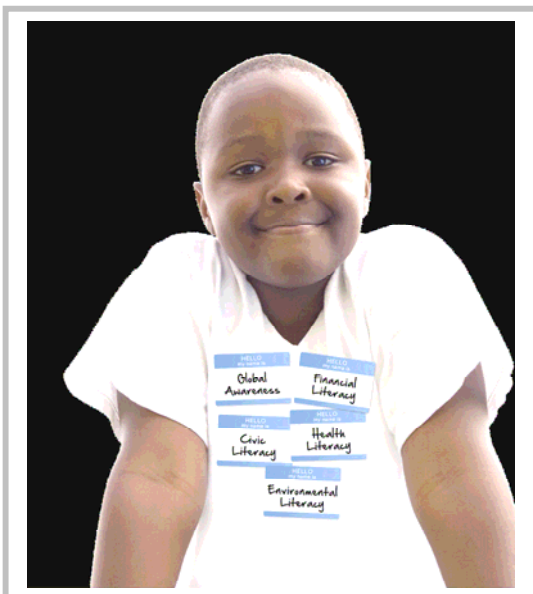


Technology Mission Statement:

It is the mission of the Lower Township School District to create a seamless infrastructure that will support and enhance the sharing of resources within and outside of the school community. Technology resources will be readily available to all students, staff and community, enhancing the school to home community network and facilitating equitable access to 21st century learning experiences to prepare for college and career readiness. Educational technology will be blended with core curriculum to support content area goals and objectives. All users will receive targeted, comprehensive training to maximize the use of 21st century tools in improving student achievement and creating flexible, life-long learners.

Vision Statement:

The Lower Township School District believes that all students – regardless of gender, economic status, cultural heritage, language proficiency, or individual level of ability and interest – will be able to achieve the Core Curriculum and Common Core State Standards because they will have unlimited access to people, to a vast array of curriculum and instruction, and in particular to information and ideas no matter where they exist. We believe that students’ command of these core concepts and 21st century learning skills – including problem-solving, critical thinking, self-discipline and communication – will prepare these learners to successfully meet the challenges of a diverse, technology infused, global society. Along with all school districts in Cape May County, the Lower Township School District is committed to maintaining the high standard of technology-infused curricula that has been established through the years of collaboration, cooperation, and implementation of a shared educational vision.



“Today’s students need to be critical
thinkers, problem-solvers
and effective communicators
who are proficient
in both core subjects & the new
21st century skills.”

Ken Kay, President



Partnership for 21st Century Skills

TASK	COMPLETED	
	REQUIRED BY E-RATE	NOT REQUIRED BY E-RATE
DATE: Provide your educational technology plan's completion date (the date when the plan first contained all of the required elements in sufficient detail to support the products and services requested on the Form 470. Tech Plan creation date: Tuesday, April 23, 2013	04/23/2013	

TECHNOLOGY INVENTORY TABLE	Indicate in the unshaded spaces the page number where the corresponding information is found.	
	REQUIRED BY E-RATE	NOT REQUIRED
1. Describe the technology inventory <u>needed to improve</u> student academic achievement in the 2013-14 SY that informs the basis for the Form 470. Include in the description the internal connections and basic maintenance <i>for 12 months of the e-rate funded year</i> , such as the following areas:	PAGE NUMBER	
a. Technology equipment including assistive technologies	8	
b. Networking capacity	9	
c. Filtering method	9	
d. Software used for curricular support and filtering	9	
e. Technology maintenance and support	10	
f. Telecommunications equipment and services	10	
g. Other Services	10	
Because a description is required, submission of a list of items is unacceptable. There has to be a narrative (no length required) of why the new and existing item(s) listed were (or will be) purchased. How these items will be used to improve student academic achievement will be asked later in the needs assessment section of the plan. EX: Networking capacity will be increased to 100MB to support all students and administrators using the Internet simultaneously throughout the school day. EX: The filtering method used for the past 2 years is XYZ which allows safe access to online learning resources for all staff and students. This year, the community will have access to the school campus network on the school grounds (parking lot, athletic grounds, etc.)		Indicate in the unshaded spaces the page number where the corresponding information is found.

NEEDS ASSESSMENT	Indicate in the unshaded spaces the page number where the corresponding information is found.	
	REQUIRED BY E-RATE	NOT REQUIRED BY E-RATE
A narrative of how the needs assessment was conducted and its results is required. As a minimum, telecommunication services, hardware, software, and other services to improve education.		
2. Describe the needs assessment process that was used to identify the necessary telecommunication services, hardware, software, and other service to improve education.	PAGE NUMBER 12	

THREE~YEAR GOALS:		Indicate in the unshaded spaces the page number where the corresponding information is found.	
		REQUIRED BY E-RATE	NOT REQUIRED BY E-RATE
3. List clear goals for 2013-16 that address district needs. There must be strong connections between the proposed physical infrastructure (bandwidth, cabling, electrical systems, networks) and goals. Include goals for using telecommunications and technology that support 21 st Century learning communities. E-Rate requirements: www.ecfr.gov		PAGE NUMBER 21	

THREE~YEAR IMPLEMENTATION AND STRATEGIES TABLE:		REQUIRED BY E-RATE	NOT REQUIRED BY E-RATE
4. Describe the realistic implementation strategies to improve education. Include in the description the timeline, person responsible and documentation (or evidence) that will prove the activity occurred. Address only “a” and “b” below to meet E-Rate requirements. Address all areas below to continue planning for a technology-rich learning environment.		PAGE NUMBER	
a. Telecommunications		22-25	
b. Information Technology		22-25	
c. Educational Technology (including assistive technologies), and			22-25
d. Student technology readiness in preparation for online testing in 2014-15.			22-25

PROFESSIONAL DEVELOPMENT STRATEGIES		Indicate in the unshaded spaces the page number where the corresponding information is found.	
		REQUIRED BY E-RATE	NOT REQUIRED BY E-RATE
5. Professional development strategies should ensure that staff (teachers, school library media personnel and administrators) know how to effectively use the technologies described in this plan to improve education, and will continue to support identified needs through 2016.		PAGE NUMBER	
a. How will ongoing, sustained professional development be provided to all educators, (including administrators) that increases effective use of technology in all learning environments, models 21 st century skills, and demonstrate learning experiences through global outreach and collaboration in the classroom or library media center?		26 - 28	
b. What professional development opportunities, resources and support (online or in person) exist for professional staff?			26 - 28
c. How will professional development be provided to educators on the application of assistive technologies to support educating all students?			26 - 28

EVALUATION PLAN		Indicate in the unshaded spaces the page number where the corresponding information is found.	
<p>The evaluation process is a narrative that describes how the evaluation of the implementation of the goals will occur.</p> <ul style="list-style-type: none"> ▪ What tool(s) will be used? ▪ When will the evaluation occur? ▪ The narrative must tell how the district will ascertain that the goal(s) have been accomplished. 	REQUIRED BY E-RATE	NOT REQUIRED BY E-RATE	
	6. Describe the evaluation process that enables the progress and effectiveness of goals to be monitored.	29	
7. Describe the process to make mid-course corrections in response to new developments and opportunities as they arise.	29		

FUNDING PLAN (JULY 2013 – JUNE 2014)			
THREE-YEAR EDUCATIONAL TECHNOLOGY PLAN ANTICIPATED FUNDING TABLE (FIRST YEAR)			
	REQUIRED BY E-RATE	NOT REQUIRED BY E-RATE	
8. Provide anticipated costs for 2013-14 by source of funds (federal, state, local, and other) and include expenses such as hardware/software, digital curricula including NJMAS compliance, upgrades and other services including print media that will be needed to achieve the goals of this plan. Allow specific provisions for interoperability among components of such technologies to successfully achieve the goals of this plan.		30	

Technology Overview



Technology

Networking and Telecommunications (Current)

The district network serves four school buildings – Sandman, Maud Abrams, Mitnick and Memorial – and five administrative offices – Superintendent/Business, Maintenance, Transportation, Food Services and Educational Programs. The Child Study Team Suite and Food Services Base are housed in the Mitnick School. The campus buildings are networked with fiber optic cable. Remote sites, Mitnick and Memorial Schools, are running on a wireless 100 mbps Internet backbone and 5.8 GHz. All sites link back to Sandman School for Internet content filtering, spyware protection and remote server access. Sandman School contains a 50 Mbps Internet backbone provided by Comcast.

The main firewall, Barracuda Web Filter, is an integrated content filtering application blocking, and spy ware protection solution. It enforces the Internet usage policy by blocking access to websites and Internet applications that are not related to education and it easily and completely eliminates spyware and other forms of malware from our school district network.

The district implements a multi-homed setup. Having multiple connections to the Internet allow a reliable, high through put service. This configuration provides our network with better reliability and performance for the teachers and students. Improved reliability results from the fact that the network is protected in case one of the Internet links or access routers fail. Performance increases due to the fact that the network's bandwidth to the Internet is the sum of the different pipes available through the different access links.

Sandman classrooms contain two Category 5e drops, SMART technology short throw projector and one coax cable for TV service. The school is also furnished with wireless access points throughout the building, supplying the school with full wireless coverage. Sandman is the “main hub” for the school district – the administration building and maintenance buildings are connected to Sandman (main hub) by fiber optic cable running at 100-mb full duplex.

Maud Abrams classrooms contain at least two Category 5e drops. Cat 5e cable is an enhanced version of Cat 5 that adds specifications for far end crosstalk. Cat 5e cable and connectors make it an excellent choice for use with 1000 BASE-T. The classrooms contain one active coax cable for TV service. The school is furnished with wireless access points throughout the building, supplying the school with full wireless coverage. Maud Abrams is connected to Sandman (main hub) by fiber optic cable running at 100 mb full duplex.

Mitnick classrooms contain at least two Category 5e drops. Cat 5e cable is an enhanced version of Cat 5 that adds specifications for far end crosstalk. Cat 5e cable and connectors make it an excellent choice for use with 1000 BASE-T. Classrooms contain one active coax cable for TV service. The school is furnished with wireless access points throughout the building, supplying the school with full wireless coverage. Mitnick is connected to Sandman (main hub) via a wireless 100 mb backbone.

Memorial classrooms contain at least two Category 5e drops. Cat 5e cable is an enhanced version of Cat 5 that adds specifications for far end crosstalk. Cat 5e cable and connectors make it an excellent choice for use with 1000 BASE-T. Classrooms also contain one active coax cable for TV service. The school is furnished with wireless access points throughout the building, supplying the school with full wireless coverage. Memorial is connected to Sandman (main hub) via a wireless 100 mb backbone.

All schools are equipped with VOIP phone solutions. The classrooms are equipped with IP base phones. The district has also implemented an off site backup solution.

Anticipated Technology Needs Narrative

Technology Equipment Including Assistive Technologies

Technology Inventory Table (1.a)

Equipment purchases for 2013-2016 are reflected in the Three-Year Inventory Chart. **(TABLE D).**

Technology Upgrades

- A. BYOD (Bring Your Own Device) Policy and Plan
- B. Upgrade the local LAN backbone to a gigabyte
- C. Virtualize the remaining servers
- D. Implementation of a VDI solution in the classrooms
- E. Video conference server
- F. Assign digital signage to all buildings/structures
- G. Upgrade existing security camera systems

Grades 3-5 will receive Dell Short Throw Interactive White Boards in their classrooms to enhance instruction in educational technology in all content areas. The board can accommodate different learning styles. Tactile learners can benefit from touching the board, audio learners can have class discussion, and visual learners can see what is taking place as it develops at the board.

Pre-school will receive I-Pads to enhance engagement, collaboration and differentiation across content areas.

Assistive Technology

The district integrates assistive technology for eligible students under the direction of the Child Study Team. These devices and accommodations are implemented as required by the student's IEP. Students currently benefit from the following accommodations:

- Franklin Speller – word processor used for writing exercises
- Soundfield Systems – Amplification for students with hearing impairments and for students with auditory processing difficulties and attention deficit disorder
- Personal FM Systems- Individual amplification systems for students with hearing impairments
- Audiotape Players – Special players that allow for repetition for students with auditory or reading difficulties
- Software – Modifications are available for Microsoft Office for students with hearing impairments. Several software programs have the capability to read the text for students. Among these programs are Accelerated Reader, which is used in grades 1 – 6 and Write Out Loud. Teachers have also identified websites that read stories to beginning or struggling readers as the Tumble Books on the Cape May County Library website. Read Naturally is a fluency-building program that delivers the text at variable speeds until a normal rate is reached. Similar books on tape/CD are available in each school's Book Room.
- Earobics – Auditory phonics program to improve listening and phonic skills.
- Touch Talker – Augmentative device used for students with poor articulation or no verbal skills.
- Mini Mo – Communication device for autistic students that produces computer-generated speech.
- Touch Screen – Used in the classroom or computer lab for students who cannot manipulate a mouse or keyboard.

- Dragon – Naturally speaking software
- Adaptive Mouse – Used with a classroom or computer lab for students who cannot manipulate a standard mouse.
- Alphasmart – Word processor for writing exercises.
- CCTV – Device that allows for the enlargement of any document. Provided at school and at home by the Commission for the Blind to a student who has been determined to be legally blind.
- Big Keys – large computer keyboards

2013-14 Additional Assistive Technology Purchases:

- AIMS-WEB – Progress monitoring software program for special needs students in special education programs.
- IPADs w/educational applications – (8) units to be purchased for preschool

Networking

Technology Inventory Table (1.b)

Windows 7 operating system will be upgraded on the Sandman and Maud Abrams computer lab computers to support students in the preparation for the PARCC assessment. The district will continue to upgrade according to the recommended specifications from the PARCC Readiness Tool.

PARCC SCHOOL READINESS PLANNING GUIDE REQUIREMENTS

In order for a computer to be connected to the district’s network, each station should meet these minimum requirements:

- 10/100 Network Interface Card (NIC)
- Pentium II Class Central Processing Unit (CPU)
- 256 MB RAM
- 10 GB Hard Drive
- SVGA Video Card
- Sound Card
- 15” (SVGA) monitor

PARCC SCHOOL READINESS PLANNING GUIDE: MINIMUM GUIDELINES FOR NEW HARDWARE PURCHASES

Hardware	Operating System	Networking	Device Type
<ul style="list-style-type: none"> • 1GHz or faster processor • 1 GB RAM or greater memory • 9.5 inch (10 inch) or larger screen size • 1024 x 768 or better screen resolution 	<ul style="list-style-type: none"> Windows 7 Mac 10.7 Linux (Ubuntu 11. 10, Fedora 16) Chrome OS Apple iOS Android 4.0 	<ul style="list-style-type: none"> Wired or wireless Internet connection 	<ul style="list-style-type: none"> * Desktops, laptops, netbooks, thin client and tablets that meet the hardware, operating system, and networking specifications

Filtering Method

Technology Inventory Table (1.c)

Barracuda will continue to be the district’s filtering method which allows for safe access to online learning resources for all staff and students and enforces the Internet usage policy by blocking access to websites and Internet applications that are not related to education.

Software

Technology Inventory Table (1.d)

Recommendations for educational software purchases are made in conjunction with curricular revisions. Student computers will be migrating to Google Applications or the “Cloud Solution” to reduce costs. Each school building maintains an inventory of educational software and applications available in the instructional labs. Library/media centers and classrooms. Networked software can be accessed from any workstation in the building. Programs available include Book Flix (MA, Mit, Mem), Brain Pop (Sc, Ma), Brain Pop Jr. (Mit, Mem), Follett Renewal Support, Reading A-Z (Sc, Mit), World Book, Super Teacher Worksheets (Ma), Accelerated Reader, and AIMSWEB software. Kindergarten through sixth grade also utilize “Think Central” and “PearsonSuccess.net.

Maintenance Policies and Plans

Technology Inventory Table (1.e)

Maintenance of equipment is ongoing through district technicians. Building computer teachers provide the first level of intervention for hardware and software issues. The computer technicians and network administrator complete advanced level hardware repairs, software installations, manage the various networks and determine when service requires outside consultants. They also maintain responsibility for insuring the interoperability between applications. Requests for service are submitted and documented through an online repair request form to insure that responses are timely and that issues are resolved. This process also provides a record of repairs or installations for particular equipment. Contracted service/maintenance costs are included in the annual budget. Software for filtering and virus protection is subject to annual renewal fees.

Technical Support

Currently the district employs three technology assistants to fill the responsibilities of network management, technical assistance and distance learning facilitation. The technology assistants have instituted an efficient online repair request process. Additionally they have the capability to provide support through a remote help desk.

Telecommunications Services

Technology Inventory Table (1.f)

Telecommunications costs decreased during the past cycle. The ATM lines were replaced with a site-to-site VPN solution. The district replaced the classroom intercom systems with a VOIP solution. The district has reduced the number of fax machines, fax supplies and phone lines via our networked copier services. The district has enjoyed an 80% discount on communications services through the E-Rate program.

Facilities Infrastructure

Technology Inventory Table (1.g)

Due to the reduction of funds, there are no anticipated infrastructure upgrades planned. The district will maintain the current infrastructure through maintenance of current equipment.

TABLE 1

THREE-YEAR EDUCATIONAL TECHNOLOGY PLAN INVENTORY TABLE			
AREA OF NEED	DESCRIBE FOR ERATE FUNDED YEAR 1 = 2013-14	DESCRIBE FOR ERATE FUNDED YEAR 2 = 2014-15	DESCRIBE FOR ERATE FUNDED YEAR 3 = 2015-16
TECHNOLOGY EQUIPMENT INCLUDING ASSISTATIVE TECHNOLOGIES	IPADS w/ EDUCATIONAL APPS (8) INTERACTIVE DELL WHITE BOARDS (20)	INTERACTIVE DELL WHITE BOARDS (20)	INTERACTIVE DELL WHITE BOARDS (20)
NETWORKING CAPACITY	WINDOWS 7 OPERATING SYSTEM (PARCC REQUIRED UPGRADE)	WINDOWS 7 OPERATING SYSTEM	WINDOWS 7 OPERATING SYSTEM
FILTERING METHOD	BARRACUDA RENEWAL	BARRACUDA RENEWAL	BARRACUDA RENEWAL
SOFTWARE USED FOR CURRICULAR SUPPORT & FILTERING	EVALUATE EDUCATIONAL SOFTWARE THAT SUPPORTS STATE CURRICULUM STANDARDS AND EXPAND LICENSES EXPLORE AND INVESTIGATE SOFTWARE TO SUPPORT EDUCATIONAL PROGRAMS BOOK FLIX (MA, MIT, MEM) BRAIN POP (SC & MA) BRAIN POP, JR. (MIT & MEM) FOLLETT RENEWAL SUPPORT READING A-Z (SC) READING A-Z SUBSCRIPTION (MIT) ACCELERATED READER (SC, MA & MIT) TEACHER WORKSHEETS (MA) WORLD BOOK (ALL SCHOOLS) AIMSWEB SOFTWARE - PROGRESS MONITORING FOR 400 SPEC. ED. STUDENTS	EVALUATE EDUCATIONAL SOFTWARE THAT SUPPORTS STATE CURRICULUM STANDARDS AND EXPAND LICENSES EXPLORE AND INVESTIGATE SOFTWARE TO SUPPORT EDUCATIONAL PROGRAMS BOOK FLIX (MA, MIT, MEM) BRAIN POP (SC & MA) BRAIN POP, JR. (MIT & MEM) FOLLETT RENEWAL SUPPORT READING A-Z (SC) READING A-Z SUBSCRIPTION (MIT) ACCELERATED READER (SC, MA & MIT) TEACHER WORKSHEETS (MA) WORLD BOOK (ALL SCHOOLS) AIMSWEB SOFTWARE - PROGRESS MONITORING FOR 400 SPEC. ED. STUDENTS	EVALUATE EDUCATIONAL SOFTWARE THAT SUPPORTS STATE CURRICULUM STANDARDS AND EXPAND LICENSES EXPLORE AND INVESTIGATE SOFTWARE TO SUPPORT EDUCATIONAL PROGRAMS BOOK FLIX (MA, MIT, MEM) BRAIN POP (SC & MA) BRAIN POP, JR. (MIT & MEM) FOLLETT RENEWAL SUPPORT READING A-Z (SC) READING A-Z SUBSCRIPTION (MIT) ACCELERATED READER (SC, MA & MIT) TEACHER WORKSHEETS (MA) WORLD BOOK (ALL SCHOOLS) AIMSWEB SOFTWARE - PROGRESS MONITORING FOR 400 SPEC. ED. STUDENTS
TECHNICAL MAINTENANCE POLICY AND PLANS	EQUIPMENT MAINTENANCE	EQUIPMENT MAINTENANCE	EQUIPMENT MAINTENANCE
TECHNICAL SUPPORT	<ul style="list-style-type: none"> ▪ WEB PAGE DEVELOPMENT ▪ E-RATE SUPPORT 	<ul style="list-style-type: none"> ▪ WEB PAGE DEVELOPMENT ▪ E-RATE SUPPORT 	<ul style="list-style-type: none"> ▪ WEB PAGE DEVELOPMENT ▪ E-RATE SUPPORT
TELECOMMUNICATIONS EQUIPMENT & SERVICES	<ul style="list-style-type: none"> ▪ XTEL ▪ COMCAST INTERNET ▪ NETWORK SOLUTIONS EMAIL/WEB HOSTING 	<ul style="list-style-type: none"> ▪ XTEL ▪ COMCAST INTERNET ▪ NETWORK SOLUTIONS EMAIL/WEB HOSTING 	<ul style="list-style-type: none"> ▪ XTEL ▪ COMCAST INTERNET ▪ NETWORK SOLUTIONS EMAIL/WEB HOSTING
OTHER SERVICES:	<ul style="list-style-type: none"> ▪ POWER SCHOOL ▪ TRANSFINDER ▪ TRANSPORTATION SYSTEM ▪ CONTOUR TRACKER 	<ul style="list-style-type: none"> ▪ POWER SCHOOL ▪ TRANSFINDER ▪ TRANSPORTATION SYSTEM ▪ CONTOUR TRACKER 	<ul style="list-style-type: none"> ▪ POWER SCHOOL ▪ TRANSFINDER ▪ TRANSPORTATION SYSTEM ▪ CONTOUR TRACKER
FACILITIES – INFRASTRUCTURE INCLUDING CENTRAL TELEPHONE & SECURITY SYSTEMS	VERIZON CENTREX VERIZON LONG DISTANCE	VERIZON CENTREX VERIZON LONG DISTANCE	VERIZON CENTREX VERIZON LONG DISTANCE

The above technology inventory will continue to be evaluated and upgraded to allow for student academic achievement through 2016.

Needs Assessment and Results Narrative

Current staff practices in integrating technology across the curriculum were assessed through a survey. Teachers at the earliest grade levels (Pre-Kindergarten and Kindergarten) were more likely to integrate technology into the curriculum as a demonstration tool, i.e., Power Point presentations, video and audio clips. Teachers at grades 1 – 2 utilize networked or online resources such as Reading A-Z, BookFLix, Brain Pop, Jr., Childcraft World Book Encyclopedia and Accelerated Reader. Teachers at grades 3 – 4 integrate technology into most curricular areas. The most common applications are writing and research for content instruction, online mathematics practice associated with the EnVision mathematics series and reading/language resources associated with the Journeys© reading series, mimio and interactive lessons utilizing SMART technology, and student-created Power Point presentations. Students and teachers use online resources like Tumblebooks, BookFlix, Brain Pop, World Book Encyclopedia and web quests. Content area instruction is regularly enhanced with online resources. Networked applications include Accelerated Reader, EnVision Math and Journeys Reading. The highest level of integration is in grades 5 – 6, where there is increased access to technology resources and higher student proficiency. Students utilize technology in all areas, particularly as a product of project-based learning. Students also publish their projects on the internal web server with [Site@School](#). Teachers are more likely to integrate video into lessons because of the availability of the video-taping and distribution system.

As part of the annual district professional development survey, educators rated their technology needs through surveys. **TABLE 2** ranks the responses of the 160 educators in grades preschool through 6 who participated in the online Professional Development Survey in March 2013. Teachers individually identified their proficiency in the specific software and hardware devices available in the district. Educators rated their need for training in these areas on a scale of priority; low, medium and high. Teachers also indicated those technology skills not applicable to their particular position. Once again, it is notable that the focus has shifted from classroom organization/productivity skills to the actual integration of technology in the area of classroom instruction and demonstration/lesson presentation skills.

District-wide, the recommendations from the technology survey interpretation indicate individual educator’s opinions of the areas where they judge themselves to be “in need of additional training”.

PROFESSIONAL STAFF RESPONSES “IN NEED OF ADDITIONAL TRAINING”					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	11/35	26/42	21/42	21/41	Word Processing	76 % Proficiency (Low to Medium Need) 18 % High Need
MED	12/35	8/42	11/42	11/41		
HIGH	5/35	7/42	8/42	9/41		
N/A	7/35	1/42	2/42	0/41		
Word Processing has not been identified as an area of priority concern. However, data indicates teacher “need” increases proportionately with each successive grade level. This is explained by the technology proficiency “bar” being raised as students progress from one grade-level to the next. By 5 th & 6 th grade, the majority of student literary/research project tasks are required to be submitted in a digital format. Students are expected to revise or edit their content, utilize online resources such as the thesaurus, incorporate clip art, photographs or graphs into their finished product as part of each major assignment. Further training or a refresher is indicated in this area for the 2013-14 SY.						
PROFESSIONAL STAFF RESPONSES “IN NEED OF TRAINING”					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	8/35	13/42	8/42	7/41	Presentations/Multimedia	73 % Proficiency (Low to Medium Need) 14 % High Need
MED	15/35	20/42	21/42	25/41		
HIGH	0/35	6/42	7/42	9/41		
N/A	12/35	3/42	6/42	0/41		
Presentations/Multimedia was not identified as an area of priority concern. Teachers in grades kindergarten – 6 expressed a need to become more familiar with the many online resources accompanying the new math and reading series. All features of the e-textbook and online teacher resources were purchased at the time of adoption. Progress monitoring features and the supplemental supports, such as the “visual animations” provide visual learners opportunity to grasp educational concepts in a visually-rich and animated format providing reinforcement for all learners. As teachers attempt to remain a step or two ahead of their pupils, the motivation for additional training is to increase command of the tools in the technology toolbox.						

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	7/35	15/42	13/42	15/41	Mimio	70 % Proficiency (Low to Medium Need) 19 % High Need
MED	16/35	13/42	17/42	16/41		
HIGH	6/35	11/42	6/42	8/41		
N/A	6/35	3/42	6/42	0/41		

Mimio Interactive is a digital tool capable of enabling a whiteboard to become interactive by displaying content from a workstation on to the classroom whiteboard for students to view and interact with via a projector and a mimio stylus. Mimio systems provide a means for educators to access a bank of prepared lessons and for students to be actively engaged in the classroom via the mimio hand-held controller. While not a required skill for students to acquire, it is a valuable teaching tool and can be applied to any content area lesson. Survey data represents teachers' current utilization of the system and their desire to acquire additional ways to integrate into daily lessons.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	10/35	19/42	15/42	17/41	Web-DVR	77 % Proficiency (Low to Medium Need) 8 % High Need
MED	6/35	17/42	18/42	21/41		
HIGH	4/35	3/42	3/42	3/41		
N/A	15/35	3/42	6/42	6/41		

The Web-DVR usage is user-friendly and has not been identified as an area in need for professional development at this time. The district has a webinar posted on the website for staff to view at their convenience on the operation of this device.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	8/35	15/42	13/42	17/41	I-Respond Systems Available in grades 3-6 only.	59 % Proficiency (Low to Medium Need) 9 % High Need
MED	3/35	2/42	16/42	20/41		
HIGH	1/35	9/42	2/42	2/41		
N/A	23/35	16/42	11/42	2/41		

The I-Respond systems are currently used in the 3rd – 6th grade schools. These schools have not identified this as an area in need of additional professional development at this time.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	3/35	8/42	3/42	2/41	Interactive White Board (Dell Short-Throw Projector)	44 % Proficiency (Low to Medium Need) 46 % High Need
MED	13/35	13/42	16/42	12/41		
HIGH	10/35	19/42	18/42	26/41		
N/A	9/35	2/42	5/42	1/41		



The highest priority technology request is for Interactive White Board capability in every classroom. Interactive whiteboards and projectors are generating tremendous enthusiasm among educators as they empower teachers to facilitate learning in whole-group or small-group settings. Educators can introduce new topics with engaging content or present existing curriculum in innovative ways. In response, every 6th grade classroom will have Interactive White Board capability as of September 2013. 5th grade classrooms will obtain this capability during the 2013-14 SY; 4th grade during the 2014-15 SY and 3rd grade during 2015-16 SY. Thus by the end of 2016, all 3rd thru 6th classrooms will have comprehensive training and integration.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	12/35	21/42	18/42	18/41	Spreadsheet/Database/ Data Management	81 % Proficiency (Low to Medium Need) 5 % High Need
MED	8/35	15/42	15/42	22/41		
HIGH	2/35	1/42	4/42	1/41		
N/A	13/35	5/42	5/42	0/41		

Educators in kindergarten thru 6th grade currently use database software applications via their virtual classrooms for LAL and math progress monitoring. These schools have not identified data base management as an isolated area in need for professional development at this time.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	11/35	14/42	13/42	17/41	Graphics/Publishing	78 % Proficiency (Low to Medium Need) 10 % High Need
MED	9/35	22/42	18/42	21/41		
HIGH	5/35	4/42	4/42	3/41		
N/A	10/35	2/42	7/42	0/41		

Educators in the district are comfortably familiar with graphics and publishing at this time as these utilities are used daily in lesson plan preparation and parent communications. Graphics/publishing is not indicated to be an area of professional development need at this time. The 10% who expressed high need for training are primarily composed of the novice teachers to the district. All novice teachers are assigned a mentor-teacher for their first year to facilitate smooth transition to all aspects of their teaching duties.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	16/35	22/42	22/42	21/41	Internet-Email	76 % Proficiency (Low to Medium Need) 23 % High Need
MED	8/35	12/42	10/42	11/41		
HIGH	10/35	8/42	10/42	9/41		
N/A	1/35	0/42	0/42	0/41		

Educators in the district are increasingly aware of the hazards of spam and unsolicited email. Equally important is the need to comprehend the ever-changing nature of the Internet and Cyber-Safety. The moderate percentage of teachers expressing concern for training warrants additional professional development consideration in this area in the coming year. With the advent of email, teachers email "paperless" lesson plans to building principals and receive feedback via the same. All district and building-specific communication memos or announcements are now provided via the district email delivery system. Email performs a vital service and is an area in which all educators are required to achieve proficiency.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	11/35	14/42	13/42	15/41	Web Publishing	74 % Proficiency (Low to Medium Need) 9 % High Need
MED	8/35	17/42	18/42	23/41		
HIGH	2/35	4/42	5/42	3/41		
N/A	14/35	7/42	6/42	0/41		

Web Publishing is currently used in the 3rd – 6th grade schools for posting student work and daily homework via the internet. This does not qualify as an area in need of professional development at this time. The 9% who expressed high need for training are primarily composed of the novice teachers in grades 3 – 6. All novice teachers are assigned a mentor-teacher for their first year to facilitate smooth transition to all aspects of their teaching duties. In addition, the building computer teachers are capable of providing individual guidance to teachers during their "prep period" upon request.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	11/35	14/42	13/42	15/41	Classroom Integration	58 % Proficiency (Low to Medium Need) 33 % High Need
MED	8/35	17/42	18/42	23/41		
HIGH	2/35	4/42	5/42	3/41		
N/A	14/35	7/42	6/42	0/41		

The second highest priority technology request is for increased integration of technology in every classroom. As the district transitions to e-textbooks and online resources, students benefit from the immersion of technology integrated into every day instruction. As stated earlier in this document, the use of technology into the classroom enhances instruction in all content areas. Technology devices can accommodate the needs and interests of each of the different learning styles. Tactile learners can benefit from touching the board, audio learners can have class discussion, and visual learners can see what is taking place as it develops at the board, kinesthetic learners express themselves through movement. Because of their good sense of balance and eye-hand co-ordination, kinesthetic learners interact with the space around them, and are better able to remember and process information.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	14/35	15/42	19/42	18/41	Distance Learning/Video Conferencing/SKYPE	78 % Proficiency (Low to Medium Need) 19 % High Need
MED	9/35	18/42	13/42	18/41		
HIGH	4/35	6/42	5/42	5/41		
N/A	8/35	3/42	5/42	0/41		

The Distance Learning/Video Conferencing/SKYPE usage is can be complex to grasp at first but becomes user-friendly once the process has been demonstrated and the advantages to the free SKYPE services has provided extensive communications across cultural barriers and continental divides. The district has several webinars posted on the website for staff to view at their convenience on the operation of this device, however this valuable resource for communication will be considered for professional development. For grades 1 through 6. Preschool and kindergarten do not currently utilize this application.

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	1/35	14/42	9/42	9/41	Think Central (Journeys Reading Program)	59 % Proficiency (Low to Medium Need) 26 % High Need
MED	15/35	16/42	19/42	12/41		
HIGH	6/35	9/42	8/42	19/41		
N/A	13/35	3/42	6/42	1/41		
LOW	5/35	14/42	11/42	8/41	Pearson Success.net (EnVision Mathematics)	59 % Proficiency (Low to Medium Need) 19 % High Need
MED	8/35	17/42	17/42	15/41		
HIGH	2/35	6/42	7/42	15/41		
N/A	20/35	5/42	7/42	3/41		

The third highest priority technology request is for increased training in the technology progress monitoring and instructor and student usage of the online resources specifically Think Central and Pearson Success.net. As the district transitioned from hard copy materials to purchasing **both** hard bound text and e-textbook materials and other online resources for the math and English language arts programs, teachers, students and parents benefit from the extended availability to instructional materials available via the district website. Goal 1 of this technology plan specifically addresses this need for educators to receive training in these technologies in order to assist students to achieve.

As part of the technology curriculum revision process, teachers at every grade level are surveyed to determine individual proficiency levels and professional development needs related to technologies available in each building. A total of 160 professional staff members participated in this survey. The results are used to plan professional development opportunities for the 2013-14 school year.

Technology Proficiency Skills were rated on a scale of 1 (beginner) to 4 (mastery) for professional development. The Richard Stockton College's Educational Technology Training Center's proficiency rating system rubric described the skills criteria necessary to qualify for each level. **TABLE 3** contains the proficiency skill averages of the educators who participated in the online Professional Development Survey in March 2013. District wide results for teacher technology skills are as follows:

Beginner	= 30%
Intermediate	= 52%
Advanced	= 17%
<u>Mastery</u>	<u>= 1%</u>
	100%

Current educational environment and barriers:

Staff is assured access to technology to facilitate technology integrations through the five-year technology funding cycle and the five-year curriculum review process (ATTACHMENT B).

Under the direction of the Principals, technology needs are identified as curriculum is reviewed and updated. Each teacher has a networked, multimedia workstation with Internet/e-mail access. Each building has digital projection systems and TV/video carts available for classroom use. Mitnick, Maud and Sandman School have mobile laptop carts for classroom use in a wireless building environment. Current 6th grade and special area classrooms at Sandman School, which houses our eldest students, have Dell short-throw interactive projectors.

Each building has a dedicated server which allows teachers to post and share resources such as literature lists, literacy templates, assessment data, assessment tools, lesson plans, audio and video files, classroom projects and an online DVR system.

Students in grades 1-6 receive weekly instruction in educational technology skills. Students in preschool and kindergarten receive access to curriculum-related computer programs on a bank of PC's as part of their Plan-Do-Review activities. Every classroom Preschool through 6 has at least one multimedia workstation. Each technology teacher has an Open Lab Day, which allows teachers to schedule additional technology support. Mitnick School (1st & 2nd) has 1 mobile cart for classroom use. Maud Abrams School has (4) mobile carts for classroom use. Sandman School (5th & 6th) has (5) mobile carts for classroom use. Each of these schools have a bank of computers in the media center for student use. Students are able to access online resources or complete Accelerated Reader tests. Sandman equipment includes (6) Onfinity systems and (2) iRespond systems. Maud Abrams equipment includes (6) Onfinity systems and (1) iRespond system. Mitnick equipment includes (4) Onfinity systems and (5) Leap Frog handheld systems. Memorial School (preschool and kindergarten) equipment includes (2) Onfinity systems and (5) Leap Frog systems.

The needs of teachers are evaluated in relation to curricular revision and through an annual professional development survey that includes technology skills and integration.

The needs of students are evaluated through performance on technology related tasks and observation by classroom and technology teachers. Needs of classified students are also assessed by members of the Child Study Team.

Past professional development has addressed staff and student needs for technology integration based on the implementation of new programs, services or curriculum revision and has been based on the needs of specific populations. Whereas an entire grade level might benefit from professional development in an online resource for content instruction or a productivity tool, identified groups might be trained in use of the management tool for a special population.

Past professional development for administrators to further the effective use of technology in the classroom or library media center has been provided through a number of venues. All administrators attend professional development conferences that include technology components. Principals in grades 1-6 have participated in

NJElite and online workshops. Administrators also attend technology-training sessions provided to staff. Resources for technology integrations are distributed at administrative meetings and sites are posted on the district network bulletin board.

During the 2009-10 SY, a variety of professional development activities were provided to staff to further effective use of technology in the classroom or library/media centers as a direct result of a grant from *American Recovery and Reinvestment Act of 2009 (ARRA)*. Grade level and faculty meetings included technology presentations. Topics varied depending on the needs and interests of the grade level and the curricular area being addressed. Training focused on the new technology tools and resources purchased with the grant funds which included Leap Frog technology, SMART © technology tools, iRespond, and DVR. Retraining has been offered based on needs identified by returning teachers and all new teachers to the district participate in technology training sessions as part of the New Teacher Network. Subsequent technology sessions have included EnVision Math, Book Flix, Inspiration, Think Central (2011 newly adopted Journeys Reading Program) and Mimio. The district maintains network subscriptions with home access for Brain Pop, Brain Pop Jr., Book Flix, EnVision Math and Think Central. Ongoing follow-up is provided through the computer teachers.

Administrators attend training sessions related to the staff they supervise. Principals attend training with their grade-levels and district administrators attend training with the buildings as appropriate. Technology articles and references are shared on a regular basis including the scheduled Administrative meetings. Administrators also subscribe to technology publications.

In addition to professional development, resources for technology integration are posted on the district network bulletin board. Support from in-house experts is readily available in all schools. Support for special projects, as distance learning or virtual field trips, is readily available through the technicians and network administrator.

Professional development needs and barriers related to using educational technology as part of instruction have been identified through surveys and during grade level meetings.

Among the barriers identified in this needs assessment and in the district Professional Development Plan are:

- An increase in diverse ability levels included in all classrooms;
- The technology revolution that is placing ever increasing demands on what teachers must know to effectively use technology to maximize instruction;
- Increasing state expectations that all students will learn at high levels by performing well on state assessments;
- Inadequate state and federal funding.

The district attempts to balance release-time with non-release time professional development in order to minimize the amount of time teachers are removed from their instructional responsibilities. However, after-school, weekend and summer training cannot always accommodate every teacher's schedule so that there is no guarantee that every teacher has the same professional development experiences.

Identified needs are reflected in the goals and implementation activity tables, and professional development plans. Prioritized needs are reflected in the goals, implementation activity tables, and professional development plans.

The Lower Township School District recognizes the National and State Technology Goals and Benchmarks and seeks to coordinate and articulate the local technology goals and strategies in order to insure implementation of these goals.

The infusion of technology across curricular areas is an ongoing process coordinated with the five-year curriculum review process and the implementation schedule for the NJCCCS and the CCSS. Ongoing evaluation will redefine the goals, strategies and activities in relation to ever-changing technologies and developing student, staff and community needs. Similarly, staff development will be coordinated with the technology integration schedule.

TABLE 2

PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
LOW	11/35	26/42	21/42	21/41	Word Processing	76 % Proficiency (Low to Medium Need) 18 % High Need
MED	12/35	8/42	11/42	11/41		
HIGH	5/35	7/42	8/42	9/41		
N/A	7/35	1/42	2/42	0/41		
LOW	8/35	13/42	8/42	7/41	Presentations/Multimedia	73 % Proficiency (Low to Medium Need) 14 % High Need
MED	15/35	20/42	21/42	25/41		
HIGH	0/35	6/42	7/42	9/41		
N/A	12/35	3/42	6/42	0/41		
LOW	7/35	15/42	13/42	15/41	Mimio	70 % Proficiency (Low to Medium Need) 19 % High Need
MED	16/35	13/42	17/42	16/41		
HIGH	6/35	11/42	6/42	8/41		
N/A	6/35	3/42	6/42	0/41		
LOW	10/35	19/42	15/42	17/41	Web-DVR	77 % Proficiency (Low to Medium Need) 8 % High Need
MED	6/35	17/42	18/42	21/41		
HIGH	4/35	3/42	3/42	3/41		
N/A	15/35	3/42	6/42	6/41		
LOW	8/35	15/42	13/42	17/41	I-Respond Systems Systems. Available for grades 3-6 only. (2 of 4 schools)	59 % Proficiency (Low to Medium Need) 9 % High Need
MED	3/35	2/42	16/42	20/41		
HIGH	1/35	9/42	2/42	2/41		
N/A	23/35	16/42	11/42	2/41		
LOW	3/35	8/42	3/42	2/41	Interactive White Board (SMART Technology) Available for 5-6 only. (1 of 4 schools)	44 % Proficiency (Low to Medium Need) 46 % High Need
MED	13/35	13/42	16/42	12/41		
HIGH	10/35	19/42	18/42	26/41		
N/A	9/35	2/42	5/42	1/41		
LOW	12/35	21/42	18/42	18/41	Spreadsheet/Database/Data Management	81 % Proficiency (Low to Medium Need) 5 % High Need
MED	8/35	15/42	15/42	22/41		
HIGH	2/35	1/42	4/42	1/41		
N/A	13/35	5/42	5/42	0/41		
LOW	11/35	14/42	13/42	17/41	Graphics/Publishing	78 % Proficiency (Low to Medium Need) 10 % High Need
MED	9/35	22/42	18/42	21/41		
HIGH	5/35	4/42	4/42	3/41		
N/A	10/35	2/42	7/42	0/41		
LOW	16/35	22/42	22/42	21/41	Internet-Email	76 % Proficiency (Low to Medium Need) 23 % High Need
MED	8/35	12/42	10/42	11/41		
HIGH	10/35	8/42	10/42	9/41		
N/A	1/35	0/42	0/42	0/41		
LOW	11/35	14/42	13/42	15/41	Web Publishing	74 % Proficiency (Low to Medium Need) 9 % High Need
MED	8/35	17/42	18/42	23/41		
HIGH	2/35	4/42	5/42	3/41		
N/A	14/35	7/42	6/42	0/41		
LOW	5/35	8/42	6/42	5/41	Classroom Integration	58 % Proficiency (Low to Medium Need) 33 % High Need
MED	13/35	16/42	19/42	21/41		
HIGH	10/35	16/42	12/42	15/41		
N/A	7/35	2/42	5/42	0/41		

TABLE 2, continued

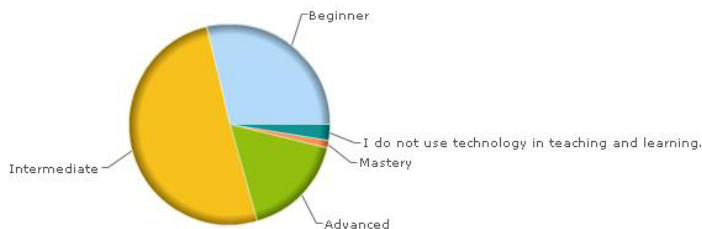
PROFESSIONAL STAFF RESPONSES "IN NEED OF TRAINING"					TECHNOLOGY TOPIC/SKILL	PROFESSIONAL STAFF RESPONSES PROFICIENT % & HIGH NEED % (DISTRICT-WIDE)
Priority Need	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff		
Low	14/35	15/42	19/42	18/41	Distance Learning/Video Conferencing/ SKYPE	78 % Proficiency (Low to Medium Need) 19 % High Need
MED	9/35	18/42	13/42	18/41		
HIGH	4/35	6/42	5/42	5/41		
N/A	8/35	3/42	5/42	0/41		
Low	9/35	17/42	10/42	22/41	Digital Imaging/Scanning	75 % Proficiency (Low to Medium Need) 9 % High Need
MED	8/35	18/42	19/42	7/41		
HIGH	6/35	3/42	4/42	2/41		
N/A	12/35	4/42	9/42	0/41		
Low	13/35	24/42	20/42	25/41	Power Teacher – Bulletins, Attendance, Lunch Counts)	75 % Proficiency (Low to Medium Need) 19 % High Need
MED	11/35	12/42	9/42	6/41		
HIGH	7/35	4/42	10/42	9/41		
N/A	4/35	2/42	3/42	1/41		
Low	5/35	8/42	12/42	20/41	Power Teacher (Grade book) Available for grades 3-6 only. (2 of 4 schools)	57 % Proficiency (Low to Medium Need) 21 % High Need
MED	9/35	15/42	13/42	9/41		
HIGH	4/35	7/42	12/42	11/41		
N/A	17/35	12/42	5/42	1/41		
Low	8/35	13/42	16/42	15/41	Troubleshooting/Maintenance	64 % Proficiency (Low to Medium Need) 24 % High Need
MED	15/35	18/42	12/42	16/41		
HIGH	9/35	10/42	10/42	10/41		
N/A	3/35	1/42	4/42	0/41		
Low	1/35	14/42	9/42	9/41	Think Central (Journeys Reading Program) Utilized by grades K – 6 only (Not Pre-Kindergarten)	59 % Proficiency (Low to Medium Need) 26 % High Need
MED	15/35	16/42	19/42	12/41		
HIGH	6/35	9/42	8/42	19/41		
N/A	13/35	3/42	6/42	1/41		
Low	5/35	14/42	11/42	8/41	Pearson Successnet (EnVision Mathematics) Utilized by grades 1–6 only (3 of 4 schools)	59 % Proficiency (Low to Medium Need) 19 % High Need
MED	8/35	17/42	17/42	15/41		
HIGH	2/35	6/42	7/42	15/41		
N/A	20/35	5/42	7/42	3/41		

TABLE 3

PROFESSIONAL STAFF RESPONSES "TECHNOLOGY PROFICIENCY"					ETTC EDUCATIONAL TECHNICAL TRAINING CENTER
	PK – K 35 staff	1 – 2 42 staff	3 – 4 42 staff	5 – 6 41 staff	
BEGINNER	12/35 34%	15/42 36%	11/42 26%	8/41 20%	BASED ON THE ETTC TECHNOLOGY PROFICIENCY CHECKLIST, PLEASE RATE YOUR ABILITY TO INTEGRATE TECHNOLOGIES INTO THE CLASSROOM
INTERMEDIATE	19/35 54%	20/42 48%	22/42 52%	20/41 49%	
ADVANCED	2/35 6%	7/42 17%	8/42 19%	10/41 24%	
MASTERY	0/35 0%	0/42 0%	0/42 0%	2/41 5%	

Based on the ETTC Technology Proficiency Checklist below, rate your ability to integrate technologies into the classroom.

District Technology Proficiency



DESCRIPTIONS OF BEGINNER, INTERMEDIATE, ADVANCED AND MASTERY INSTRUCTIONAL LEVEL OF TECHNOLOGY PROFICIENCY

Teachers who cannot do **ALL** of this section would be considered to be at the ETTC **BEGINNER** Level.

1. Turn computer on, use a mouse, and launch a program.
2. Create, edit, format, save, and print text in a word processing program.
3. Use draw tools to create original graphics.
4. Manage classroom computers and peripherals including accessing control panels, selecting printers, installing and uninstalling software, and performing basic troubleshooting.
5. Create a word document using proper page setup, tabs, tables, clip art, borders and symbols.
6. Model and teach ethical and legal practices regarding use of technology and information.
7. Navigate the Internet using browsers, email, search engines, bookmarking, and Internet citations for bibliographies.
8. Design a spreadsheet using proper format, data entry, simple formulas and graphs.
9. Create, define and sort a database table.
10. Create a multimedia presentation which includes text, clip art and special effects.

Teachers who cannot do **ALL** of this section would be considered to be at the ETTC **INTERMEDIATE** Level.

1. Incorporate bullets, numbering, headers, footers, shortcuts and mail merge into a word processing document.
2. Manipulate images captured by a scanner and digital camera/media.
3. Incorporate sound, video, graphics, animations and hyperlinks into a multimedia presentation.
4. Make use of assistive technologies (hardware and software) and obtain resources from the Web.
5. Use draw and paint tools for grouping, ungrouping, and layering, and to modify text and clip art.
6. Create a spreadsheet that employs formulas, complex layouts and graphs.
7. Create a database that includes complex queries, forms and reports.
8. Use the Internet to find, design, and post online reports.
9. Create, edit, and post a web page with attention to copyright issues.

Teachers who cannot do **ALL** of this section would be considered to be at the ETTC **ADVANCED** Level.

1. Interpret error messages, employ various operating systems, and use anti-virus software and utilities.
2. Use problem solving tools and software such as calendars and graphic organizers for brainstorming, conceptual mapping and flow- charting.
3. Send, open and save email attachments.
4. Design and use spreadsheets that incorporate complex formulas and functions, absolute cells and chart functions.
5. Design and use relational databases.
6. Operate a video camera, create storyboards and scripts, understand basic production techniques, and conduct simple editing.
7. Use desktop conferencing, ITV, and satellite programming to enhance the curriculum.
8. Create and design a Web site that incorporates links, tables and graphics.
9. Design lessons that include student-created projects and rubrics for assessment.
10. Function as a peer coach and district leader to assist others in the infusion of all available technologies outlined in the district technology plan.

Teachers who can do **ALL three sections listed above** are considered to be at the ETTC **MASTERY** (OR ISTE “INSTRUCTIONAL”) Level.

THREE-YEAR GOALS:

The needs assessment results show a need for: Instructional staff to integrate educational technology as an integral component of their instructional process. **(GOAL 1 & 2)**

GOAL 1:

Establish training programs for educators to enhance teaching and learning through the use of educational technologies to assist students to achieve the NJ Core Curriculum Content Standards and the Common Core State Standards.

- Establish guidelines and specifications for teacher training
- By 2016, all educators will demonstrate progress toward acquiring skills necessary to integrate technology into instruction to increase academic achievement

GOAL 2:

Students, teachers and administrators will have equitable access to educational technology in all learning environments including classrooms, media centers, schools, and other educational settings such as community centers, libraries and home.

- Annually, through 2016, increase access to technology resources for students, teachers & administrators.
- Annually through 2016, increase access to technology resources by maintaining high speed WANs and LANs that allow voice, video and data sharing between and among schools and outside providers.
- Annually, through 2016, expand resources and implement procedures that support partnerships between and among the various communities that impact schools – classroom, home, local community, professional community, and electronic communities

The needs assessment results show a need for: Further professional development in the utilization of the online assessment components of Think Central (Journeys reading series) and Pearson Successnet (EnVisions Math program) to inform instruction.

GOAL 3:

Students will attain 21st Century Skills in educational technology and information literacy to achieve the NJCCCS and the CCSS to succeed in the global society.

- By 2016, each subgroup of students will meet the annual proficiency targets on the statewide assessments as a result of the implementation of the realigned, technology enhanced curricula and instructional practices.
- Annually, through 2016, 80% of the students at each grade level will meet the student growth objectives (SGO) based on the Student Growth Objectives (Proficiencies) for Technological Literacy rubric developed by the district technology committee.
- Educators and administrators will have access to technologies that provide for maintenance, reporting and analysis of student/staff data to provide feedback to facilitate decision-making to guide future instruction.

The needs assessment results show a need for: Interactive white board capability in the classrooms for use in daily instruction for all content areas.

GOAL 4:

The Lower Township School District will establish and maintain the technology infrastructure necessary for students and educators to access electronic information and to communicate freely via technology.

- Annually, through 2016, provide financial resources necessary for implementing the Technology Plan.

TABLE 4

THREE~YEAR IMPLEMENTATION AND STRATEGIES TABLE

GOAL 1: Establish training programs for educators to enhance teaching and learning through the use of educational technologies to assist students to achieve the NJ Core Curriculum Content Standards and the Common Core State Standards.

OBJECTIVE	STRATEGY/ACTIVITY	TIMELINE	PERSONNEL RESPONSIBLE	DOCUMENTATION
<p>1. Establish guidelines and specifications for teacher training</p>	<ol style="list-style-type: none"> 1. Identify the training necessary to operate existing technology equipment in each school. 2. Identify areas of need for staff training for district curriculum online tech resources 3. Provide teacher training sessions identified as needed 4. Develop a bank of interactive websites and technology integration websites on the T-Drive for webinars or online training sessions. 	<p>July-August each year</p> <p>July-August each year</p> <p>August Inservices or workshops</p> <p>Monthly grade-level meetings</p>	<p>Principals</p> <p>C&I Supervisor</p> <p>Special Services Supervisor</p> <p>Teachers</p>	<p>Guideline Criteria for operating tech devices</p> <p>Needs assessment for Teacher Training</p> <p>Training session Sign in Sheets</p> <p>Log of online tech training</p>
<p>2. By 2016, all educators will demonstrate progress toward acquiring skills necessary to integrate technology into instruction to increase academic achievement</p>	<ol style="list-style-type: none"> 1. Technology resources will be incorporated into all completed curriculum guides for all instructional content and related arts areas. 2. Educator training to be provided during grade level meetings, faculty meetings, approved workshops, and district in-service days. 3. Focus on training and awareness activities to support the achievement of the Standards for Required Professional Development of Teachers. Identify tools, including assistive technology, that enhance instruction, support cross-curricular activities, access a variety of learning styles, and motivate students in order to construct learning experiences that support all learning communities. Include the use of technology to support data driven decision making. 4. Provide advanced training to selected turnkey staff members to create a network of on-going, in-house support as technology teachers, media specialists, technicians, and selected support personnel. 5. Develop a bank of interactive websites and technology integration websites on the T-Drive. 6. Verify the progress toward integration of technology during instruction, principal observations, review of lesson plans and student projects. 	<p>coordination with the 5-year curriculum review cycle</p> <p>September 2013 and ongoing through 2016</p> <p>October 2013 and ongoing through 2016</p> <p>October 2013 and ongoing through 2016</p> <p>release time provided as curriculum is revised or adopted</p> <p>Sept. 2013 – June 2016</p>	<p>Principals</p> <p>C&I Supervisor</p> <p>Special Services Supervisor</p> <p>Teachers</p>	<p>Lesson plans</p> <p>Evidence of staff tech. proficiency from annual e-survey.</p> <p>Sign in sheets for training sessions</p> <p>Evidence of tech integration during teacher evaluations</p> <p>Teacher Evaluations, lesson plans</p> <p>Professional development evaluation forms</p> <p>Evidence of staff tech. proficiency from annual e-survey.</p> <p>Evidence of tech integration during teacher evaluations</p>

GOAL 2:

Students, teachers and administrators will have equitable access to educational technology in all learning environments including classrooms, media centers, schools, and other educational settings such as community centers, libraries and home.

OBJECTIVE	STRATEGY/ACTIVITY	TIMELINE	PERSON NEL RESPONSIBLE	DOCUMENTATION
<p>1. Annually, through 2016, increase access to technology resources for students, teachers & administrators</p>	<p>1. Identify areas of need for technology enhancement by building</p> <p>2. Determine priority list by grade level (or school building)</p> <p>3. Purchase hardware/materials, services & provide training as identified on priority lists</p>	<p>March 2014</p> <p>April 2014</p> <p>July 2013 – June 2014 and ongoing through 2016</p>	<p>Principals C&I Supervisor Special Services Supervisor Teachers</p>	<p>Evidence of building level inventories</p> <p>Priority Needs lists</p> <p>Purchase order documentation</p> <p>Training Logs of user access</p> <p>Training</p>
<p>2. Annually through 2016, increase access to technology resources by maintaining high speed WANs and LANs that allow voice, video and data sharing between and among schools and outside providers.</p>	<p>1. Analyze network usage to ensure high speed LANs and WANs maintain high speed network.</p> <p>2. Maintain and enhance a high speed WAN to allow data/resource sharing among all buildings including student data, file-sharing, educational resources, e-mail, and internet. Upgrade on a regular basis</p> <p>3. Provide technical support to maintain network.</p> <p>4. Explore options for improved delivery</p>	<p>Annual Tech Committee Meeting</p> <p>July 2013 – June 2014 and ongoing through 2016</p> <p>July 2013 – June 2014 and ongoing through 2016</p>	<p>Principals C&I Supervisor Special Services Supervisor Technology Assistants</p>	<p>user survey</p> <p>Log of tech resource availability & usage</p> <p>Research alternative options</p> <p>Tech Dept logs</p> <p>Survey</p>
<p>3. Annually, through 2016, expand resources and implement procedures that support partnerships between and among the various communities that impact schools – classroom, home, local community, professional community, and electronic communities</p>	<p>1. Facilitate community participation and awareness of technology's role in the educational process, the Technology Plan, and ongoing status of program implementation by presentations, online survey, variety of venues including PTA, BOE meetings, Back-To-School Nights, Family Technology Night</p> <p>2. Provide distance-learning capability in each building that allows teachers and students to collaborate with peers or to access experts "real time." Allow for access in multiple sites through multiple protocols.</p> <p>3. Online access for Think Central</p> <p>4. Seek opportunities to partner with other educational and community entities to increase availability of educational technology in all learning environments.</p>	<p>September 2013 – June 2014 and ongoing through 2016</p> <p>Annual Tech Committee Meeting</p> <p>Administrative meetings</p> <p>Parent Nights thru each academic year</p> <p>Continuous progress monitoring</p> <p>Consortium meetings of local LEA's</p>	<p>Principals C&I Supervisor Special Services Supervisor</p>	<p>Successful completion will be evidenced by log of community outreach efforts including meetings, web postings, and surveys.</p> <p>Parent notifications of resources via student handbook or website</p> <p>Meeting log</p>

GOAL 3:

Students will attain 21st Century Skills in educational technology and information literacy to achieve the NJCCCS and the CCSS to succeed in the global society.

OBJECTIVE	STRATEGY/ACTIVITY	TIMELINE	PERSONNEL RESPONSIBLE	DOCUMENTATION
<p>1. By 2016, each subgroup of students will meet the annual proficiency targets on the statewide assessments as a result of the implementation of the realigned, technology enhanced curricula and instructional practices.</p>	<p>1. Utilize on-line assessments from Pearson Success-net and Think Central to analyze and track student progress in ELA and Math and to inform instruction and to prepare intervention opportunities.</p> <p>2. Schedule curriculum meetings at each grade level as part of the five year review cycle. Identify and plan grade appropriate projects/activities that focus on integration of technology across curricular areas.</p> <p>3. Plan and implement projects that utilize distance-learning technologies to enhance instruction including Skype, e-mail, and internet. Investigate, evaluate, and disseminate information on grade appropriate online resources to support curriculum.</p> <p>4. Provide students with online assessment opportunities to prepare for the PARCC assessment.</p> <p>5. Analyze student achievement as measured by PARCC on-line assessment readiness.</p>	<p>September 2013 – June 2014 and ongoing through 2016</p> <p>July 2013- June 2014 and ongoing through 2016</p> <p>October 2013 and ongoing through 2016</p> <p>September 2013 and ongoing through 2016</p> <p>April 2015 – June 2015 and ongoing through 2016</p>	<p>Principals C&I Supervisor Special Services Supervisor Teachers</p>	<p>Success will be measured by the performance targets established by the state.</p> <p>Meeting minutes Lesson plans/projects as evidence of implementation Revised curriculum guides</p> <p>Lesson plans Internet logs Lists of resources</p> <p>Lesson plans</p> <p>Success will be measured by the performance targets established by the state.</p>
<p>2. Annually, through 2016, 80% of the students at each grade level will meet the student growth objectives (SGO) based on the <u>STUDENT GROWTH OBJECTIVES (PROFICIENCIES) FOR TECHNOLOGICAL LITERACY</u> rubric developed by the district technology committee.</p>	<p>RUBRIC DEVELOPMENT & DISTRIBUTION</p> <p>1. NJCCCS – Standard 8.1 – Computer and Information Technology</p> <p>2. NJCCCS – Standard 8.2 – Technology Education</p> <p>3. Analyze student progress through formative assessment</p>	<p>May 2014 – June 2014 and ongoing through 2016</p>	<p>Principals C&I Supervisor Special Services Supervisor Teachers</p>	<p>Success will be measured through multiple formats including rubrics, checklists, class work, observation, formative and summative assessments.</p>

<p>3. Educators and administrators will have access to technologies that provide for maintenance, reporting and analysis of student/staff data to provide feedback to facilitate decision-making to guide future instruction.</p>	<p>1. Investigate future incorporation of a classroom management system to interface with other administrative software.</p>	<p>July 2013 – June 2014 and ongoing through 2016</p>	<p>Principals C&I Supervisor Special Services Supervisor Teachers</p>	<p><u>STUDENT DATA BASE</u> <u>SOURCES:</u></p> <ul style="list-style-type: none"> ▪ AIMS-WEB ▪ Pearson Success.net ▪ Think Central ▪ NJASK/PARCC
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<p>GOAL 4:</p>				
<p>The Lower Township School District will establish and maintain the technology infrastructure necessary for students and educators to access electronic information and to communicate freely via technology.</p>				
OBJECTIVE	STRATEGY/ACTIVITY	TIMELINE	PERSONNEL RESPONSIBLE	DOCUMENTATION
<p>Annually, through 2016, provide financial resources necessary for implementing the Technology Plan.</p>	<ol style="list-style-type: none"> 1. Budget funds for technology resources as part of annual school budget. 2. Technical support will be maintained for all staff to ensure operating equipment and systems. 3. Maintain a current inventory of hardware and software and infrastructure conditions in each school and for the district. 4. Continue to coordinate with other county, state, and consortium agencies to identify shared services or measures that effect more efficient purchasing. 5. Continue to seek other funding sources to support technology purchases i.e., grants, local foundation, e-rate. 6. Review procedures for the effective purchase, installation and maintenance of technologies to insure consistency, compatibility and interoperability with existing technologies/applications. 7. Review and evaluate plan and procedures at least annually. Encourage on-going evaluation through inclusion of technology related issues at faculty meetings for each school and through regular technology meetings with instructors and technicians. 	<p>September 2013 – June 2014 and ongoing through 2016</p> <p>September 2013 – June 2014 and ongoing through 2016</p> <p>September 2013 – June 2014 and ongoing through 2016</p> <p>September 2013 – June 2014 and ongoing through 2016</p> <p>Ongoing as grants are available</p> <p>July 2013 and ongoing through 2016</p> <p>At least annually through 2016</p>	<p>Principals C&I Supervisor Special Services Supervisor Teachers Technology assistants Business Administrator</p>	<p>Successful implementation will be evidenced by the appropriation of adequate funds for technology in the district’s annual budget.</p> <p>Inventory documents</p> <p>Purchase agreements, contracts, meeting summaries</p> <p>Completion of applications</p> <p>Written procedures</p> <p>Revised plan</p>

Narrative Description for the Professional Development Strategies:

A. Coordination

As Curriculum and Instruction and Professional Development Supervisor, Sabina Muller, along with the building principals, is responsible for coordinating the professional development activities noted in this plan and in the District Professional Development Plan. Teachers and administrators are surveyed for professional development needs, including those related to technology. Additionally, regular meetings between educational supervisors and building principals review curriculum and professional development plans to insure continuity and consistency.

B. Planned Professional Development Activities

Ongoing, sustained professional development for administrators to further the effective use of technology in the classroom or library/media center will be provided through several venues. Each administrator has the opportunity to attend outside conferences, including those with a technology focus. Administrators subscribe to online resources as Annenberg/CPB, EI Online, and PBS. Administrators subscribe to numerous print and online resources that include technology integration as those associated with ASCD, IRA, NCTM, ISTE, ALA, NJASA, NJPSA, NJAET, and NAEYC. Information related to technology is shared regularly at administrative meetings. Each administrator also attends professional development activities provided to teachers, including those related to technology integration.

Based on the district professional development survey and curricular revisions, staff will be provided with sustained professional development activities through after-school, summer, and release time training, through demonstrations and grade-level meetings, through peer-coaching, and through online and print resources. During the 2009-10 SY, training was provided in the use of SKYPE as a tool for outreach and collaboration. Additional training and support continues to be provided annually.

Technical staff attend professional development activities as they relate to existing and future technology needs. Most often training occurs in the form of webinars or application-specific presentations. Technical staff may also visit other sites or attend outside conferences to view new technologies.

Professional development on the application of assistive technologies to support all students in their learning is provided through the Supervisor of Special Services, Case Managers, or vendors. Training includes both professional staff and support-personnel, as personal and classroom aides. Training for applications that impact all students are coordinated with the building-level professional development sessions.

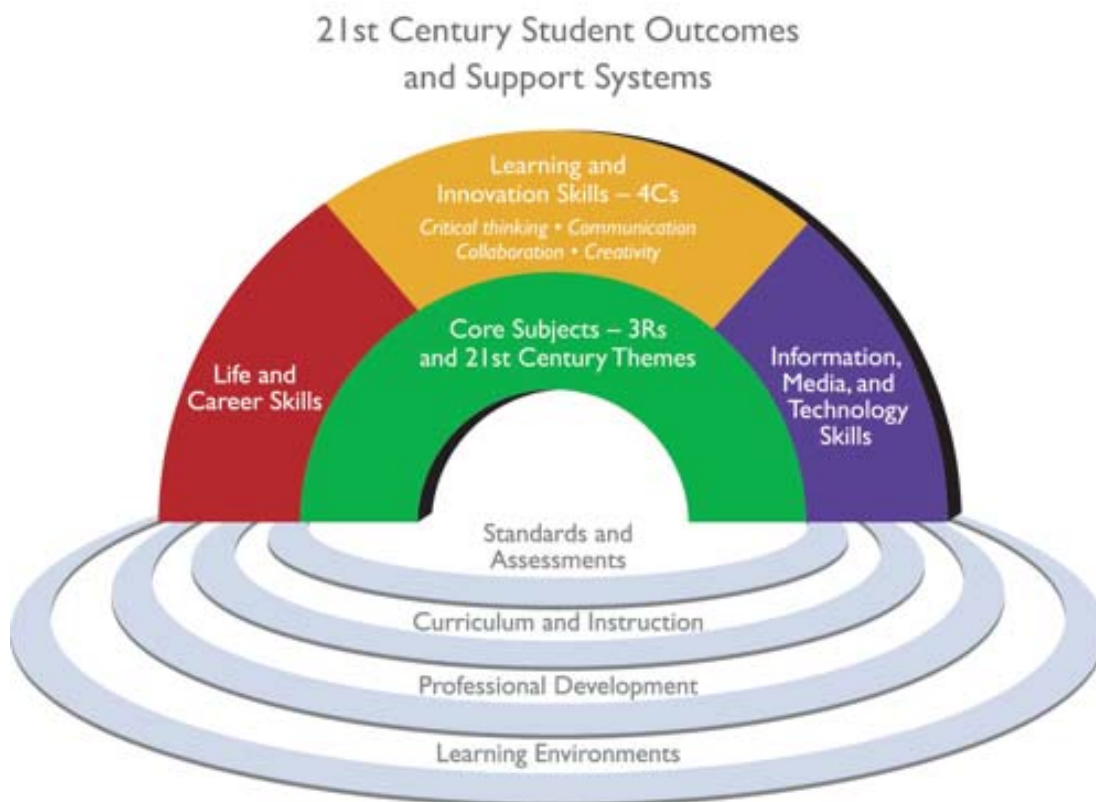
B. Planned Professional Development 2013-14

Based on educators' proficiencies and identified needs for professional development, the district plan includes ongoing, sustained, high-quality professional development opportunities through expert technology staff members. As indicated in Goal 1, Objective 1.1, building teachers will work with grade-level teachers to plan workshops specific to grade-level curricula. Staff technology training is also tied to the curriculum review process since technology integration is a component of the revised curricula. In 2012-13, committees comprised of teachers in every grade level revised the language arts literacy, math, technology, and social studies curriculum. Training in technologies and applications specific to these curricula will be provided in the coming year. In 2013-14, library/media and world languages will begin their revisions. Again technology integration will be an essential component and teachers will receive training in appropriate tools. All partners associated with professional development play essential roles in the delivery of this training. Administrators and teachers identify the needs specific to the grade levels; technicians insure that the necessary tools are available; technology teachers and classroom teachers collaborate to plan the sessions that will address the needs of students of all abilities; technology teachers and "expert" users facilitate the training. Peer coaching has proven to be one of the most effective models of professional development in recent years. Teachers who are knowledgeable in content and who are familiar with the technology tools provide support to teachers that can be "customized" to that individual's comfort level with the technology.

Each classroom teacher is supported in developing a project that integrates core curriculum with technology applications. Typical projects have included developing and illustrating food chains using Inspiration, research integrating literacy and social studies or science using Microsoft productivity tools like Word and Power Point, and graphing science and math concepts with Excel.

C. Projected Professional Development Activities

As noted, professional development activities must be correlated with the curriculum review cycle in order to insure that teachers have the necessary strategies to implement revised programs. The goal of the local professional development plan is to encourage job-embedded professional development with expert, in-house coaching. The professional development vision includes collaboration between subject area experts and technology experts to develop integrated projects and learning opportunities that allow students and teachers to seamlessly integrate technology with content knowledge. Additionally, the professional development plan intends to provide targeted technology training that assists teachers to increase their proficiency levels in relation to the ETTC proficiency checklist. It is anticipated that the model developed for 2013-14 will continue to be implemented through 2016. Because of funding restraints, technology training will likely be dependent on the availability of funds. Extensive training will be provided for the implementation of the PARCC assessment when state guidelines are released in the upcoming school year.



PROFESSIONAL DEVELOPMENT TABLE

EDUCATORS' PROFICIENCY/IDENTIFIED NEED	ONGOING, SUSTAINED, HIGH-QUALITY PROFESSIONAL DEVELOPMENT PLANNED FOR 2013-14	SUPPORT
INTEGRATING TECHNOLOGY INTO THE ENGLISH LANGUAGE ARTS CURRICULUM (JOURNEYS)	<p>Grade level training with technology teacher, media specialist and literacy committee members to support the new literacy curriculum including THINK CENTRAL, READING A-Z, BOOKFLIX, BRAIN-POP AND BRAIN-POP, JR., ACCELERATED READER AND THINKFINITY.</p> <p>Grades 5 & 6 will receive the training during 2013-14 SY. Grade 4 will receive the equipment and training during the 2014-15 SY and Grade 3 will receive the equipment and training in 2015-16.</p>	Grade level teams will receive release time to identify resources consistent with the curriculum revisions. Technology resources will be shared at grade level meetings at varying intervals as the plan progresses. Resources will be posted on the building server in the folder for Literacy. Teachers who attend out-of-district training will turn-key at grade-level meetings. "Expert" users will be released to mentor colleagues. Teachers will be encouraged to share their ideas.
INTEGRATING TECHNOLOGY INTO THE MATH (ENVISION), AND SCIENCE CURRICULUM	Grade-level training with technology teacher, distance learning facilitator and curriculum committee representatives on resources and applications that facilitate utilization of the technology resources accompanying the math series and support the science curriculum including websites (PEARSON SUCCESS.NET) and tools (SKYPE).	
INTRODUCING THE TECHNOLOGY OF THE NEW SOCIAL STUDIES CURRICULUM	Grade-level training with technology teacher, distance learning facilitator and curriculum committee representatives on resources and applications that facilitate utilization of the technology resources accompanying the new social studies series and support the social studies curriculum including websites and tools.	<p>Curriculum consultants and company technology representatives will provide orientation to the new social studies curriculum, accompanying e-tools and teacher/student resources.</p> <p>Grade level teams will receive release time to identify resources consistent with the new curriculum. Technology resources will be shared at grade-level meetings as the year progresses. Resources will be posted on the building server in the folder for Social Studies. Teachers attending out-of-district training will turn-key at grade-level meetings. "Expert" users will be released to mentor colleagues.</p>
PRESENTATION TOOL FOR TECHNOLOGY INTEGRATION DELL SHORT THROW INTERACTIVE WHITEBOARD TECHNOLOGY & TRAINING	<p>Building level technology training presented by the technology teacher and "Expert" users.</p> <ul style="list-style-type: none"> ▪ Grades 5 & 6 will receive the training during 2013-14 SY. ▪ Grade 4 will receive the equipment and training during the 2014-15 SY. ▪ Grade 3 will receive the equipment and training in 2015-16. 	August Inservice technology training will be scheduled for introductory sessions for 5 th & 6 th grades. Subsequent after-school technology training will be scheduled as needed for additional support. Follow-up will be provided as needed/as additional units are installed. "Expert" users will be released to mentor colleagues.

Evaluation Plan

Because the Lower Township School District has aligned its educational technology plan with the curriculum review process and the professional development plan, progress toward meeting the goals of this plan will be assessed annually based on specific curriculum committee recommendations and on teacher evaluation of training sessions. Members of the Technology Task Force will meet annually to review the planning process. The core district technology team members – technology teachers and technicians – will meet at least quarterly. Technology needs/issues will be considered at monthly building staff meetings, as appropriate. Modifications will be made to address the discrepancy between desired goals and actual achievement and to reflect the newly identified needs. Revision will be necessitated by the evolving nature of technology, in response to new hardware and software, changes in effective delivery of services, and as instructional needs change.

EDUCATIONAL TECHNOLOGY PLAN EVALUATION NARRATIVE

DESCRIBE THE PROCESS TO REGULARLY EVALUATE THIS PLAN AS EFFECTIVELY

<p>A. Telecommunication services, hardware, software and other services are improving education and developing life-long learning skills.</p>	<p>Through the technology teachers, students will be assessed on their technology proficiencies in relation to the district technology literacy curriculum. The principals will review these progress indicators to determine growth toward the goal of developing life-long learners.</p>
<p>B. Effective integration of technology</p>	<p>As key stakeholders, the principals, the Supervisor of Curriculum and Instruction and the Supervisor of Special Services will assess the integration of technology into curriculum and instruction through review of lesson plans, classroom observations, and review of student products. Teacher self-evaluation through surveys will determine the teacher level of technology proficiency and ability to successfully integrate technology into lessons. The results of the survey will be analyzed to determine progress towards these goals and to plan for future professional development needs. Included in this process will be an evaluation of the availability of technology resources to further these goals. These resources include infrastructure, as Internet access/bandwidth, reliability of the district WAN and building LAN, both wireless and Ethernet-based, hardware, software for productivity, management, and curriculum enhancement, and technical support.</p>
<p>C. Enabling students to meet challenging state academic standards.</p>	<p>The educational administrators/stakeholders will conduct a review of assessment data annually, particularly for the NCLB subgroups, to determine progress toward meeting the state academic standards in all areas, not just literacy, math and science.</p>
<p>D. The LEA is meeting the identified goals in the Educational Technology Plan.</p>	<p>The educational administrators/stakeholders will conduct an annual review of the Educational Technology Plan to determine progress toward meeting the identified goals.</p>

FUNDING PLAN TABLE (FIRST YEAR)

THREE-YEAR EDUCATIONAL TECHNOLOGY PLAN ANTICIPATED FUNDING TABLE (FIRST YEAR)

Complete this table to indicate the funding source of anticipated costs of technologies to ensure that students have access to technology.
The use of this table is optional and provided as a convenience.

ITEM	DESCRIPTION OF ITEM TO BE PURCHASED	FEDERAL FUNDING	STATE FUNDING	LOCAL FUNDING	MISC. (E.G. DONATIONS, GRANTS)
DIGITAL CURRICULA					
PRINT MEDIA NEEDED TO ACHIEVE GOALS					
TECHNOLOGY EQUIPMENT	DELL – INTERACTIVE WHITE BOARDS iPADs			PRINTERS - \$2,000 SERVERS - \$7,000 DELL WHITEBOARDS - \$44,000 iPADs - \$3,200	
NETWORK	VERIZON - \$ 3,984 XTEL - \$33,842 COMCAST - \$ 2,784	<u>ANNUAL BASED ON E-RATE</u> VERIZON - \$ 3,187 XTEL - \$27,073 COMCAST - \$ 2,227		VERIZON - \$797 XTEL - \$6,769 COMCAST - \$2,227 \$ 8,123	DISTRICT RECEIVES 80% DISCOUNT
CAPACITY					
FILTERING				BARRACUDA - \$3,996	
SOFTWARE				READING A-Z - \$7,696 MICROSOFT OFFICE - \$ 5,400 POWER SCHOOL TRANSFINDER TRANSPORTATION CONTOUR (IEP) AIMS-WEB - \$1,600	
MAINTENANCE				TECHNICIANS - \$400,403	
UPGRADES				MEMORY - \$7,000 FOLLETT - \$3,840	
POLICY AND PLANS					
OTHER SERVICES				TEACHERS – \$501,123 PRO. DEV. \$24,000 WEB CONSULTANT \$10,000	
FURTHER EXPLANATION:					

Additional Technology Information

Educational Technology Access for Educators

Teachers and school library media personnel have access to educational technology in their instructional areas. Each teacher has one networked multimedia workstation with access to a workgroup printer. Each classroom has one additional workstation that can access the Internet and network resources.

Each library/media center has one multimedia station for the media specialist and a bank of networked computers for student/staff use. At the Memorial School, there is one additional station since students do not utilize the search system. At Mitnick School, there are four (4) additional stations; at Maud Abrams School, five (5) additional stations; and at Sandman School, ten (10) additional stations. Each Maud Abrams and Sandman teacher has been assigned a laptop. Because the school environments are wireless, teachers and students may access resources anytime, anyplace. Grades 3 – 6 teachers also have access to mobile units for classroom use. At Maud Abrams, there are four (4) laptop carts. At Sandman, there are five (5) laptop carts and at Mitnick, there are two (2) laptop carts. Each school has access to projection systems that include a digital projector, laptop and DVD player. Every classroom has an IP phone. **(Equipment Inventories – Appendix A)**

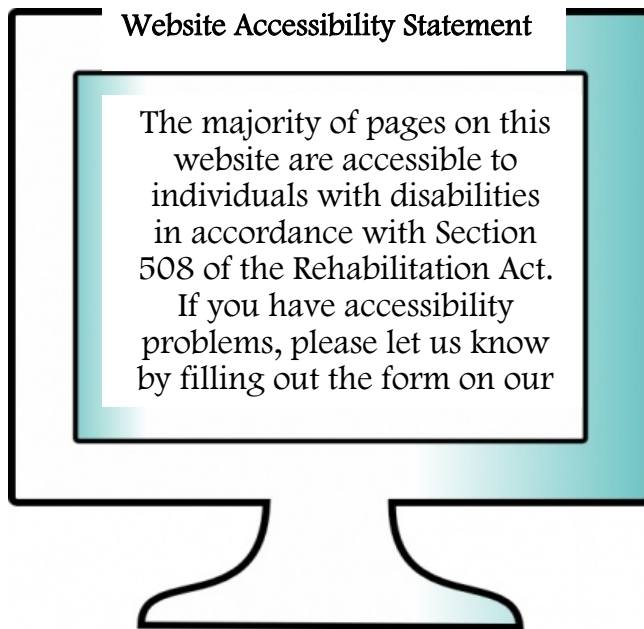
Educational Technology Access for Administrators

Each administrator has a networked laptop and printer. Each school has a dedicated server that allows the principal to create and distribute resources for their staff. Teachers also post resources to be shared. Among these documents are lesson plan templates, assessment results and literacy resources. All administrators have access to the administrative server, which provides district-wide resources including emergency information, district calendars, notices and templates. Every administrator has an individual email account and an IP phone. Each principal has the ability to communicate with staff through the Daily Bulletin on Power School and through a broadcast email system for the school.

Accessibility

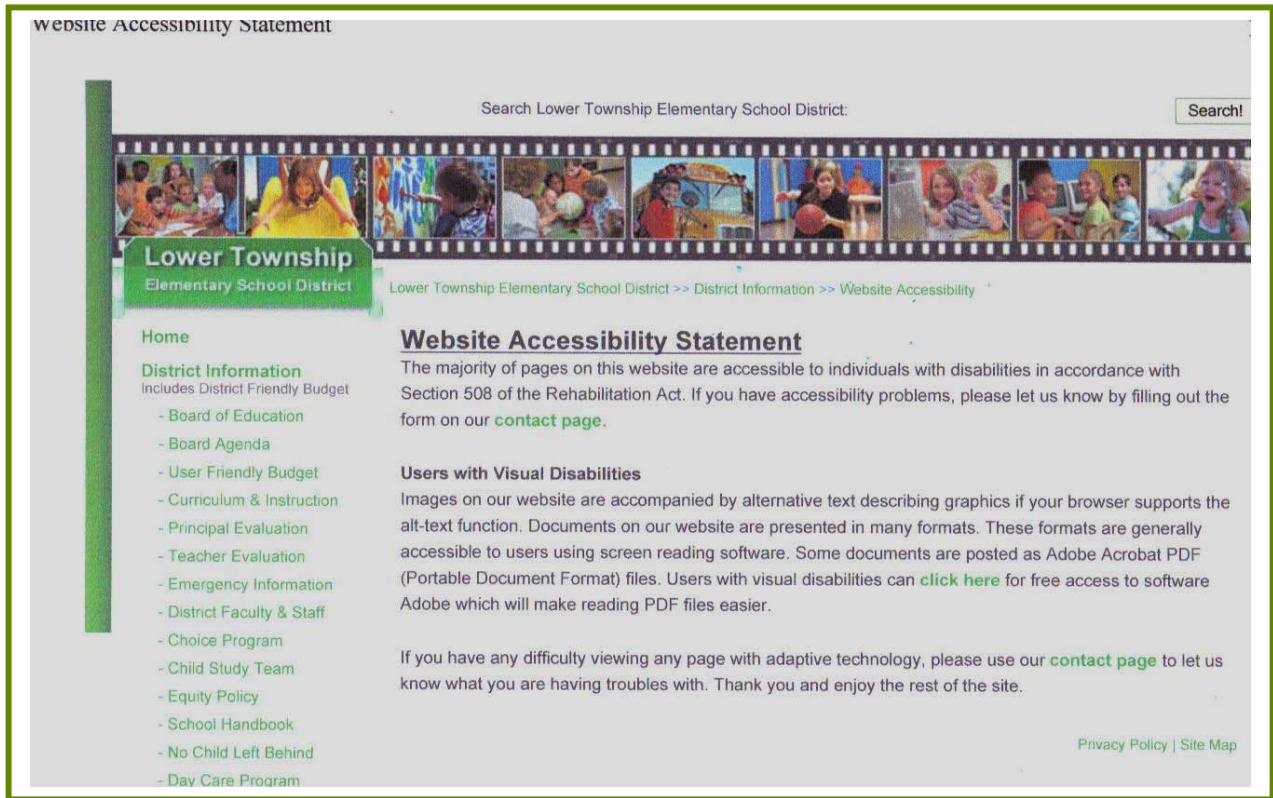
The district website serves as a means to create greater communication and accessibility to parents and community members. Through a shared service agreement with the Lower Cape May Regional School District, Lower Township receives support in web design. The following statement related to accessibility appears on the district webpage.

www.lowertwpschools.com/district/accessibility.html



Users with Visual Disabilities (www.lowertwpschools.com/district/accessibility.html)

Images on our website are accompanied by alternative text describing graphics if your browser supports the alt-text function. Documents on our website are presented in many formats. These formats are generally accessible to users using screen reading software. Some documents are posted as Adobe Acrobat PDF (Portable Document Format) files.



Obsolescence Plan

As part of the annual review process, hardware/technologies are reviewed for obsolescence. Software upgrades may be implemented more frequently in order to ensure interoperability and compatibility depending on networking decisions and vendor support.

The hardware inventory tracks purchase dates and projected replacement dates. A list of obsolete hardware is presented to the Board of Education for deletion from the fixed asset inventory. Hardware designated for removal is wiped of sensitive data prior to disposal. Removal records are maintained by the Business and Technology Offices.

The district technicians employ cost effective and efficient practices. Obsolete hardware is "harvested" for all usable parts before it is disposed of. Aging, but usable equipment is maintained as long as the repair time and costs are less than 50% of the replacement value.

Cyber Safety

Filtering

The Barracuda Web Filter integrates spy ware web site blocking, spy ware download blocking and spy ware detection. By utilizing both rule based and signature based blocking, the Barracuda Web Filter not only blocks spy ware, but also detects and blocks spy ware access to the Internet.

The Barracuda Web Filter incorporates content filtering. An extensive Web site category is updated hourly via Energize Updates. The Barracuda Web filter also includes flexible enforcement options for easy administrative management.

The Barracuda Web Filter provides complete virus protection for all downloads in addition to blocking spy ware. By utilizing dual layer virus blocking, decompression of archives and file type blocking, the anti-virus engine in the Barracuda Web Filter further protects the network from crippling threats.

A team of security engineers at Barracuda Control monitors the Internet for trends in spy ware and virus attacks. As they detect trends, updates are created for the Barracuda Web Filter. The Barracuda Web Filter is then automatically updated hourly with new spy ware rules, spy ware algorithms, and virus definitions. The Barracuda Web Filter will continue to deliver comprehensive protection even as methods of spy ware change.

Acceptable Use Policy

All district personnel and students who utilize the school network are required to sign the Acceptable Use Policy annually. The AUP policy and procedures are posted on the district website. The same information is shared with parents in the Student-Parent Handbook. A list of the signed acceptance forms is maintained by each technology teacher in order to document students who are permitted to use the Internet for instruction.

Online Safety Awareness

Students in grades 1 through 6 receive online safety awareness instruction as part of the district technology curriculum. At the earliest levels, the focus includes personal security and safety issues. As students access to technology and proficiency increases, students are instructed in other social and ethical aspects. These skills are delineated in the curriculum guide. Students in Kindergarten and Preschool may not personally access the Internet. Online applications are presented by the teacher. At all grade levels, student use of school e-mail is limited to class use. Students do not have individual e-mail accounts. Class to class contact may be completed through a teacher account. Cyber bullying is incorporated into anti-bullying instruction for students in grades 3-6, in a grade appropriate manner and reinforced in supplemental bully prevention training.

Parent Resources for Online Safety

Information related to online safety is available to parents/families in a number of ways. Online safety resources are posted on the district website. Information is provided through the technology teachers at Back-to-School Night. Additional, targeted training is provided as requested. Cyber bullying information has been incorporated into a bullying presentation provided through the PTA and the Educational Programs Office.