

REQUIRED SUBSTANTIVE COMPONENTS
OF THE
LOCAL SCHOOL DISTRICT TECHNOLOGY PLAN

Schools, school districts, and libraries that want to apply for Schools and Libraries support, commonly referred to as "eRate," must first prepare a technology plan. Beginning with FY2011, technology plans are required only for Priority 2 services (Internal Connections and Basic Maintenance of Internal Connections). An approved technology plan sets out how information technology and telecommunications infrastructure will be used to achieve educational goals, specific curriculum reforms, or library service improvements.

A technology plan designed to improve education should cover the entire funding year (July 1 to June 30) but not more than three years. The plan must contain the following elements:

Goals and realistic strategy for using telecommunications and information technology

A professional development strategy

An assessment of telecommunication services, hardware, software, and other services needed

Ongoing evaluation process

Policies

The technology plan must be approved by a USAC-certified technology plan approver before discounted services can begin. The State is the certified technology plan approver for libraries and public schools. www.usac.org, August, 2011.

LEA/Charter Name: Durham Public Schools

LEA/Charter Number: 320

Superintendent Name: Dr. Eric Becoats

Superintendent Signature: _____

Local Board Chair Name: Ms. Minnie Forte-Brown

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Durham Public Schools
Technology Plan

2012-2014



Final July 2012

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**Durham Public Schools
Technology Planning Committee**

Technology Plan Oversight			
Role	Description	Person Responsible	Title
Plan Leader	Ultimate authority. Responsible for ensuring that the elements within the plan are implemented with fidelity.	Dr. Eric Becoats	Superintendent
Plan Sponsor	Responsible for the plan, its desired results and specific outcomes. Advise Champions on escalations and other issues regarding the plan.	Hugh Osteen	Assistant Superintendent for Operational Services
Co-Champions (Plan Managers)	Maintains the plan, assigns and facilitates the completion of deliverables and goals, performs reviews, address issues and change requests, and responsible for technical quality of solution.	Elaine Batten	Director of Information Technology Planning and Operations
		Mary Gray Leonard	Director of Media Services
Priority Team (PT) - Responsible for Completing Priority Areas			
<u>Priority One: Statewide Shared Services Model</u>			
Name	Title		
Primary Team Lead – Stephen Brown	Infrastructure and Networking Manager		
Secondary Team Lead – Dana Hodges	Educational Technology Resource Specialist		
Hugh Osteen	Assistant Superintendent of Operational Services		
Christopher Smith	Information Technology Project Manager		
David Ross	School Technology Facilitator - Secondary		
John Daniels	School Technology Facilitator & Media Coordinator– Elementary		
Linh Altork	School Technology Facilitator & Teacher – Elementary		

Priority Two: Universal Access to Personal Teaching and Learning Devices

Role on Team/Name	Title
Primary Team Lead - Jerry Williamson	Educational Technology Resource Specialist, Middle Schools
Secondary Team Lead – Daniel Moore	End User Device Manager, Sr. Apple Engineer
Dr. Julie Spencer	Area Middle School Superintendent for Curriculum, Instruction & School Improvement
Dr. Stacey Wilson-Norman	Area Elementary Superintendent for Curriculum, Instruction & School Improvement
Rick Sheldahl	Executive Director of Career Technical Education
Lynda Reilich	Teacher-Assistive Technology
Dr. Dietrich Danner	Project Manager for Race to the Top
Sheila Matlock	School Technology Facilitator & Media Coordinator – Secondary
Tracy Bell	School Technology Facilitator & Media Coordinator – Secondary
Valerie Brown	School Technology Specialist – Elementary

Priority Three: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Name	Title
Primary Team Lead –Ron Wahlen	Instructional Technology Business Manager
Secondary Team Lead – Kelly Stevens	Educational Technology Resource Specialist, Elementary
Dr. Deb Pittman	Assistant Superintendent for Student, Family and Community Services
Sashi Rayasam	English as Second Language Specialist
Laura Will	School Technology Facilitator & Media Coordinator, Secondary
Elizabeth Husketh	School Technology Facilitator & Media Coordinator, Elementary
Robin Wright	Exceptional Children Program Instruction Specialist
Robert Bourgeois	CTE Teacher, DSA Secondary School
Charles Nolan	Principal, Middle College High School
Micah Copeland	Principal, Hope Valley Elementary School

Priority Four: A Statewide Model of Technology-Enabled Professional Development

Name	Title
Primary Team Lead – Sherry Ballentine	Educational Technology Resource Specialist, Elementary
Secondary Team Lead – Corwin Armstrong	Enterprise Applications & Integration Manager
Dorie Hall	Assessment for Learning Coordinator
Dr. Teresa Daye	Executive Director of Curriculum, Instruction & Assessment
Camille Marlowe	Professional Development Coordinator
Ruth Key	School Technology Facilitator, Secondary
Laura Fogle	School Technology Facilitator & Media Coordinator, Elementary

Priority Five: 21st century Leadership for All Schools and Districts

Name	Title
Primary Team Lead – Mary Gray Leonard	Director of Media Services
Secondary Team Lead – Dewayne Kendall	Service Desk Manager
Jim Key	Area High School Superintendent for Curriculum, Instruction & School Improvement
Beth Cross	Director of Advanced Academics
Jennifer Umbarger	School Technology Facilitator & Media Coordinator, Secondary
Linda Turgurian	School Technology Facilitator, Elementary

Durham Public Schools Technology Plan 2012-2014

Vision Statement

The year is 2021. The economic recession that hit our nation a decade ago is now a distant, but not forgotten, memory. History has shown that the period immediately following a recession is filled with growth and prosperity. And so it is in Durham 2021!

Durham, North Carolina is enjoying this boom as much as anywhere in the country. New businesses are relocating to the area and parents are seeking out Durham as their preferred place for raising a family. Talented individuals from all parts of the United States and the world now proudly call Durham home.

In short, Durham is a thriving boomtown offering a quality of life second to none. Despite its fine reputation as the City of Medicine and a technological hotspot with a welcoming population, Durham has quickly become known as the educational nerve-center of North Carolina – and a national flagship. While it has always enjoyed access to world-renowned universities, the difference is the transformation of its K-12 school district.

The historical shift in educational quality can be traced back to January of 2011. That was when Durham Public Schools launched its new strategic plan. The plan was the culmination of a Listening and Learning Tour that gathered input from over 4,400 community members. The plan contained six strategic areas: Academic Acceleration; Communications and Partnerships; Equitable Standards; Effective Operations; Talent Development; and Wellness and Safety.

Because the goals were both specific and measurable, the community rallied to support the strategic plan in two very important ways. First, a commitment was made by businesses, universities, organizations and individuals to provide the resources needed to make innovation accountable for the success of the plan – and more importantly, for the success of the students.

This was also the timeframe that Durham Public Schools began a renewed effort with rigor and intention to harness and overcome the technology issues that existed in the classrooms, putting in place a realistic approach to ensure 21st century technology access for its students and staff, and focusing its staff and resources on higher integration of technology in every classroom. This strategic prioritization of technology infusion in the classrooms comprised:

- a. A higher concentration of infrastructure within its schools to support the connectivity needed by curriculum-driven collaboration with other classrooms, both nationally and globally.*
- b. Establishing a long-term plan to ensure a continued ability to provide adequate, agile, and state of the art devices in the classrooms to engage its students to learn more and achieve more.*

- c. *Ensuring high quality, relevant professional development that gave its teaching professionals the confidence to model, then master technology with their students who were hungry for learning and energized to excel beyond their dreams.*

For the start of the 2012 school year, technology priorities were aligned and embedded throughout the Durham Public Schools Strategic Plan in all six strategic areas, which has transformed and infused classrooms ever since.

Due to the recognition and accolades bestowed upon Durham Public Schools by national media, researchers and professional journals, the district no longer has to recruit teachers and principals. It now has the luxury of selecting from among the best in the nation. As a result, every classroom now has a highly-qualified teacher and every school is high performing – including the new schools constructed since 2011.

Teaching and learning are still the foundation of the schools, but they look and feel much different from 10 years ago.

We have overcome enormous challenges in the past 10 years – because we worked together and believed in our children and their worth and achieved One Vision. One Durham.

Durham Public Technology Plan
Strategic Priorities
2012 - 2014

At Durham Public School (DPS), technology will be transformed over the next two and a half years with the assistance of its leadership team, community, partners, employees, students and parents to ensure equitable access and a quality delivery of technology from end to end – from the backend infrastructure to support the solutions in the effective use of technology by the students and well-trained teachers.

DPS is seriously evaluating shared service offerings so that current funding sources can be re-directed to the classrooms. While it is already involved in some statewide shared services, plans for additional opportunities are being developed.

DPS has taken significant strides towards 1:1 computing and equitable access as described in these pages. The data from these initiatives, along with similar evaluation data from other sources, will derive the roadmap for expansion even further.

We will crystallize our plan in providing digital resources over this two-year time frame to ensure that adequate resources are, and continue to be placed in the hands of our students.

Professional development (PD) will take an accelerated pace and align throughout all of the related initiatives to focus the training and development on what is possible and what is most effective.

21st century leadership at DPS is focused on transforming our technology and infusing our classrooms with highly qualified, technology-savvy educators and providing challenging curriculum to propel our students towards achieving knowledge and growth.

Key themes across the five priorities are:

1. Use minimum baseline technology standards to drive technology decision making; removing aged equipment in our schools and ensure a refresh plan is in place using innovative funding, blended funding, and other means.
2. Take advantage of the North Carolina Education Cloud Services wherever possible and with a thorough analysis of DPS requirements and a well-planned migration.
3. Create the TLI-IMPACT model in a pilot setting of four schools to prove how the model can work at DPS and use those findings to plan expansion with the vision of modeling in all schools across future years.
4. Ensure that after the DPS Technology Plan is in place, each school develops their individual plan to align to the district plan.
5. Ensure access to Web resources at all levels possible.
6. Create a standing district Media and Technology Advisory Committee.
7. Merge the PD silos and develop one overall framework for the PD program.
8. Expand STEAM and 1:1 programs and align Career Technical Education to STEM.
9. Ensure sustainable finance options to support technology transformation.
10. Create a technology teacher/leader academy.

Strategic Priority 1: A Statewide Shared Services Model

Essential Questions for Durham Public Schools

How will we leverage collaborative purchasing to pay substantially less for technology services and platforms?

How can a Statewide Shared Services Model assist in shifting primary support from infrastructure to instructional needs?

How can a Statewide Shared Services Model enable increased infrastructure and technology efficiency and sustainability?

How can a Statewide Shared Services Model provide higher service reliability?

How can a Statewide Shared Services Model facilitate more strategic budgeting models for our LEA/Charter School?

Current Status and Moving Forward

A Shared Service Model (SSM) is designed to focus on certain services and provide those services in an efficient and effective way, with higher quality and lower costs. When applicable, the shared services should be open and standards-based. Clients subscribing to the service model could benefit from leveraging buying power, life cycle replacement, interoperability, and training.

Durham Public Schools (DPS) could benefit from those services that eliminates redundant activities, improves efficiency, and delivers a higher quality of service. By taking advantage of greater use of SSMs, DPS Information Technology (IT) staff would be able to focus on core technologies and activities that directly support and enhance the classrooms.

DPS IT staff provides services to the schools and the district in the areas of end user device support, email, messaging, shared storage, application hosting, filtering, IP (Internet Protocol) phones, network security, backup and recovery, and directory services. Where possible, DPS will increase its SSM strategy in order to reduce the DPS budget and infrastructure requirements.

The DPS Strategic Plan (DPS SP) has several strategies aligned to specific project charters under the Effective and Efficient Operations Goal IV. Charter 22 provides the scope of analyzing and realigning IT resources to ensure higher service to its schools, as well as aligning the IT budget and expenses specifically to develop a sustainable budget/financing option to support technology upgrades as a part of the annual and long-range budgets. Charter 23 provides a training program to develop skills standards which also ties into reduced costs. Leveraging the SSM to a greater extent is a part of those project scopes.

The DPS current model for shared services has existed to some extent for several years. DPS has and is leveraging eRate funds, grants, State technology offerings and corporate and public partnerships to meet selective needs. The following are examples of those areas:

eRate

DPS currently leverages eRate in the following areas:

- High speed circuits between district schools
- Local and long distance telephone services
- Cellular services
- Smartphone service
- District Web hosting
- Basic maintenance of network components for schools in need
- Cisco Base maintenance (equipment warranty)
- Basic maintenance of cabling components
- Basic maintenance of video equipment
- High speed Internet access for the district
- Voice Over Internet Protocol (VOIP) services
- Cabling refreshment for schools in need

Grants

- KidSmart – Young Explorers and Lenovo computers
- Donors Choose
- Other IBM grants such as Translate Now!

State Technology Offerings

Since July of 2011, DPS participates in the NCREN for all Internet traffic.

Corporate and Public Partnership

Duke University donates at least 50 computers a month to DPS for use in its classrooms. The Durham Chamber of Commerce also partners with us on our volunteer program and has been instrumental in providing innovative ideas and support. Other partnerships have also been leveraged for bringing in donated computers for the district.

In planning for the 2012-13 and 2013-14 school years, DPS will increase its collaborative purchasing to pay substantially less for technology platforms. This will be accomplished by:

1. Increasing our focus on grants and securing additional value to the district's technology program through awarded grants.

DPS grants are coordinated through the Research and Accountability area. Leadership in this area hired a Coordinator of Grants, Program Evaluation and Data Analysis, who has given technology leadership her commitment to include technology as a part of all relevant grants. The additional commitment will ensure more technology planning is incorporated into the grants process. This should increase grant possibilities and potential awards.

2. Increasing our focus on community partnerships and ensuring higher value to our classrooms beyond any business transaction the district has with that partner.

A renewed focus at the district level is being pursued to build a partnership framework. This includes technology partnerships. The district is strengthening its partnerships such as Cisco, Dell, and Lenovo, in order to improve services to the classrooms.

3. DPS will investigate and where feasible, increase our donations program to include additional devices and donors.

DPS developed in the 2011-12 school year minimum technology standards. These minimum standards are used to identify the greatest instructional technology needs in our classrooms. The donations program management will reach out to additional businesses and partners to expand the possible inputs to the donation program so that more computers can reach our students.

4. DPS will continue its eRate program in:
 - High speed circuits between district schools
 - Local and long distance telephone services
 - Cellular services
 - Smartphone service
 - District Web hosting
 - Basic maintenance of network components for schools in need
 - Cisco Base maintenance
 - Basic maintenance of cabling components
 - Basic maintenance of video equipment
 - Video equipment for schools in need
 - Wireless in neediest schools
 - Domain services for schools in need
 - Network switching refresh for schools in need
 - Upgrade voice services for schools in need
5. DPS will increase its use in the Statewide SSM where possible. DPS has focused its current activities in these areas to clearly understand and document DPS specific requirements so that the State offerings can be aggressively pursued:
 - a. Internet filtering – DPS’ current Child Internet Protection Act (CIPA) content filter is Marshall 86 which costs the district approximately \$80,000 a year. DPS IT failover approach for Marshall 86 is Open DNS, which has no cost to the district. DPS IT is currently documenting our CIPA requirements in January and February of 2012 and will compare with the State product offerings by the end of March, 2012 to determine if and how a migration can occur before the 2012-13 school year.
 - b. Voice Over Internet Protocol (VOIP) – DPS currently maintains a district-wide VOIP solution for its central services and its schools. DPS IT staff is currently identifying all requirements and costs associated with providing our VOIP

services. These requirements and costs will be used to determine whether or not DPS can take advantage of the State offering in this area.

- c. Firewall – DPS has currently upgraded its firewall infrastructure and provided training of the product in-house. While DPS is satisfied with managing this at this time, DPS will undertake the financial analysis to determine if the managed or unmanaged offering is cost effective. If so, we will identify the timeline and migration plan to do so. This will be done so that if the data shows financial benefit to the district, a migration can occur for July 1, 2012.
6. DPS will investigate and leverage, where applicable, the State SSM relative to the common data initiative as it evolves. While the State common data initiative clarifies its offering as it is still under development, DPS will clearly identify its requirements for the same so that when a plan is provided to DPS, we will be prepared to leverage the offering and plan the migrations in a timely fashion. DPS recognizes many advantages in this area. While the offering is evolving from NC DPI, DPS IT staff is analyzing our data integration requirements and applications portfolio to be in a position to move towards the common data initiative.
7. DPS has had a software portfolio management process for several years. Best practices are used to reduce or eliminate redundancy in the software usage within the district. DPS IT staff is specifically working with vendors to renegotiate lower costs and standardize on integration protocols to accelerate any State offering in consolidating software program purchases. DPS IT staff has also worked in this area to enforce the need for software to be Commercial-Off-The-Shelf or Web-based delivery to reduce our teaching and learning device requirements and costs. When specific State shared services are identified through its statewide software portfolio analysis and State programs are adjusted to provide for standard interfaces, DPS is ready to leverage a consolidated software portfolio.
8. DPS is pursuing at this time a personal teaching and learning device refresh plan. In 2009, just before the budget crunch hit DPS, the district underwent a study of the aging computer problems and recommended a five-year computer refresh program. It was not implemented due to the budget constraints, but the need still exists and is even greater today. Classroom access and performance will be improved for both student and teacher use by addressing the aging computer problem in the district by establishing a refresh plan. This refresh plan will also support the online testing. DPS anticipates having the plan in place to during the Spring of 2012, if the funding plan is approved.
9. Schedule technology purchasing to gain economies of scale. Currently schools procure as needed and wanted. The Minimum Technology Baseline Standards provides the focus on what to buy. By scheduling group purchases, volume discounts will be leveraged.

The budget provided through the increased leverage of the Statewide SSM will be refocused back into the classroom through:

1. Reducing physical data center requirements for the district. The DPS IT data center is a remodeled, expanded secure room with specific power requirements and cooling requirements. Taking advantage of the State SSM offerings, both what is available now and what will be available in the near future, would contain the problem DPS IT faces each year in meeting data center expansion requirements due to incoming educational requests for increased services.
2. Maintaining a smaller infrastructure to address only those DPS-specific platforms that supports emerging instructional systems and data systems. By providing a reduced budget requirement for infrastructure, those resources can be given back to the district's strategic planning process.
3. DPS would refocus limited technical resources to the schools and the classrooms to better improve the IMPACT model's staffing recommendations in the areas of technician to device and WAN/LAN expert to device ratios.
4. Focusing our resources to delivering anywhere, anytime access to educational resources through its school infrastructure improvements in wireless and end user device management plan.

A Statewide SSM will enable increased infrastructure and technology efficiency and sustainability by:

1. Satisfying bandwidth demands.
2. Providing shared server deployments to support common services across LEAs.
3. Leveraging server virtualization to deploy logical servers.
4. Automatically scaling server and storage resources to meet demands.
5. Realizing the efficiency of contemporary IT technologies. By having a standards-based infrastructure, DPS IT will be able to respond more quickly to new technology requirements driven by curriculum. This includes digital textbooks, delivering supplemental curriculum material with textbooks, providing access to remote sites such as the Durham Regional Detention Center and community centers focused on DPS student services. In the future, the same standards based infrastructure can serve the students who take their devices home.

A Statewide Services Model can provide higher service reliability by:

1. Categorizing platforms into systems such as, learning and instructional, IT enterprise and business operations to enable the development an architecture that provides standard learning management, identity, content and data management interfaces and services in order to simplify connecting provider solutions - shared learning infrastructure transition server hosting and management to Cloud providers.

2. Providing Service Level Agreements (SLAs) for LEAs rather than best effort Memorandum of Understandings. With limited budget and limited staff, having clear SLAs in place allows all stakeholders to understand the expectations of its partners and be able to make informed decisions when educational changes arise.
3. Managing network latency.
4. Providing hardware and software patches and upgrades.

A Statewide Services Model can facilitate more strategic budgeting models for DPS by:

1. Providing the NC Education Cloud services to all NC LEAs and Charter Schools on an opt-in basis.
2. Analyzing the software portfolios of all LEAs and setting direction, maximizing procurement and support for common vendor applications. In addition, providing platforms for development of shared requirements with LEA customizing options.
3. Avoiding custom-based proprietary solution on current framework and integrate a non-standard interface.
4. Meeting recurring costs associated with the NC Education Cloud services via a combination of existing State (school connectivity-eRate), Title I and local funds.

Alignment to Other Plans and Initiatives:**Strategic Priority 1: A Statewide Shared Services Model**

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

DPS will utilize and align with the Accountability and Curriculum Reform Efforts to reach our vision and complete the strategic priorities of our plan by participating in the shared services model offerings creating an alignment with the core curriculum standards. The fore-mentioned will allow our LEA to better prepare our infrastructure to support a 21st century curriculum and the transition to online assessments, universal and equitable access to digital and personal teaching devices/resources, including the delivery of anywhere, anytime, access to education resources. An integral part of creating a sound technology infrastructure is to provide high-availability, performance and reliable platforms and services.

Career and College Ready, Set, Go!

A few major initiatives in Career and College Ready, Set, Go! are (1) to improve the infrastructure of data systems and (2) to improve instruction, data access and shared services. DPS will align with the NC Education Cloud initiative in establishing and increasing data systems that measure student success and inform teachers, principals and policymakers about how they can improve the delivery of educational services to students. One activity to accomplish this effort comprises the infrastructure having the capability to capitalize on newer technologies through the expansion of virtual and blending teaching, putting more technology into the hands of students and teachers, increasing individualized learning options, giving students alternatives in achieving the ultimate goal of graduation. Through these initiatives we can accomplish the next generation technology infrastructure and reduce costs utilizing State shared systems.

Race to the Top (RttT) Local and State Scopes of Work

RttT will allow North Carolina to significantly enhance data quality, data accessibility, and ensure that such data is being used to inform instructional and resource allocation decisions. RttT funds will utilize a more strategic blending model utilizing blended funding to incorporate the State infrastructure blueprint into technology, provide and support student, teacher, administrator access to a Learner Management System, Learning Object Repository, and web collaboration tools at each school. Objective: (A)(2) 1.1 Incorporate the State infrastructure blueprint into technology plans.

Objective: (A)(2) 2.1

Implement the infrastructure blueprint

Objective: (A)(2) 3.1 Provide and support student, teacher, administrator access to a Learner Management System, Learning Object Repository, and web collaboration tools.

DPS Strategic Plan

Goal IV of the Effective Operations Strategic Area will be used in developing efficient and effective technology framework at the operations level to better service our community at the school-based level. Creating a sound technology infrastructure will satisfy this need in reducing costs by utilizing state-based information management, instructional, and data systems and creating new systems to

minimize costs and centralize access.

Goal II of the Equitable Standards Strategic Area will address a fair infrastructure of hardware and software resources that will allow the district to identify accessibility and resource gaps within the district. When these are followed and met, students' instructional needs are adequately met. For example, a minimum technology standard scorecard has been developed. The implemented NC Education Cloud model will allow shared and equitable allocation of technology resources throughout the district.

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	<p>Goal: Increase by 30% adequate educational training and technical support for ALL schools by performing ET/IT sessions for equipment.</p> <p>Responsible Party: IT, ET, DPS leadership, Grants (RttT), Community Partnerships</p>	<p>Goal: Provide the second year of a refresh plan to replace and/or purchase 20% of existing devices. (DPS SP Goals III.6 and IV.1)</p> <p>Responsible Party: IT, ET, DPS leadership, Grants (RttT), Community Partnerships</p>	<p>Charter 23 project status reports</p> <p>Training Session Evaluation Process Results</p> <p>Survey Results</p>	
	<p>Goal: Increase the number of applications using single sign-on.</p>		<p>Automated Account Management Process documentation & account management</p>	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	Responsibility Party: School Administration, IT, Donations Program, Grants		job logs	
Provide equitable and additional access to digital resources	Goal: Expand donations program to include additional donations for schools in need. (DPS SP Goal III.6). Responsible Party: DPI and DPS IT	Goal: Ensure that the main repository for documents is accessible from any wired remote location by anyone within the school systems applicable bandwidth. Responsible Party: DPI and DPS	Donations Program Evaluation Metrics Usage Reports for DEPOT and portfolio items	
	Goal: Provide an infrastructure that can provide equity of access to server and storage resources including applications (usage reports). (DPS SP Goal IV.3) Responsible Party: DPI and DPS IT		SSM Cost Savings	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	Goal: Deliver anywhere, anytime, access to education resources. (DPS SP Goal IV.3) Responsible Party: DPI and DPS IT		SSM Cost Savings	
	Goal: Consolidate to a common infrastructure platform that supports emerging instructional and technology systems. (DPS SP Goal IV.3) Responsible Party: DPI and DPS IT		SSM Cost Savings	
Reduce operating costs by facilitating a more strategic budgeting model	Goal: Move to shareable resources to enable better use of spending for applications and devices that must be localized. (DPS SP Goal III.6) Responsible Party: IT leadership, Financial leadership		IT Multi-year Roadmap Charter 22 project status reports and project deliverables.	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	<p>Goal: Funding model for refresh plan in place.</p> <p>Responsible Party: IT leadership, Financial leadership</p>		Charter 22 project status reports and project deliverables.	
Facilitate a more strategic budgeting model utilizing blended funding and reducing isolated programmatic spending	<p>Goal: Expand blended funding model, leveraging eRate resources, community resources, State and local funding by completing Charter 22. (DPS SP Goals IV.1)</p>	<p>Goal: Create DPS knowledge-base of videos, lessons, presentations, and templates.</p> <p>Responsible Party: Teachers, IT, ET, Executive Director of Curriculum, Instruction and Assessment</p>	<p>Charter 22 status reports and deliverables</p> <p>DPS Instructional portal utilization</p>	
	<p>Share resources on an online repository to eliminate application and document server load.</p> <p>Responsible Party: Financial staff, IT, ET, DPS leadership</p>		vBrick Utilization Reports and Content Inventory comparisons	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Promote/maintain innovative funding model by utilizing NC Education Cloud offerings and alternatives	Goal: Set strategy for email service. (DPS SP Goals IV.1).	Goal: Execute email strategy. Responsible Party: IT services	Email Migration Feasibility Study Results	
	Goal: Increase use of Statewide Longitudinal Data System and Student Information System. Responsible Party: IT		Data Plan	
	Goal: <u>NC Education Cloud</u> Next generation technology infrastructure Service delivery platform for content, services and applications.		Service Level Agreements (SLAs) for the services leveraged Network monitoring	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	Utilize NCREN Plan Feasibility Firewall – pending analysis, migrate to NC Education Cloud Increase use of Google Docs and other Cloud or internet-based services. Security operating services - monitoring IDS Responsible Party: IT		reports	
Maximize eRate in support of instructional programs	Goal: Maintain basic maintenance contracts, Time Warner Internet connectivity, wireless, network equipment, vBrick technology website hosting.	Goal: Refresh and upgrade eRate school infrastructure. Responsible Party: IT Services	eRate forms 470 and 4701	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	Responsible Party: IT			
	Move toward centralized services on the Cloud to enable less localized hardware to maintain. Focus can shift to procuring better bandwidth. Responsible Party: IT			
Provide content filtering in accordance with the Children's Internet Protection Act (CIPA).	Goal: Evaluate State offering to OPT-IN. Responsible Party: Teacher, IT leadership, ET	Goal: DPS-controlled indexed databases Responsible Party: teachers, IT	Service Level Agreements (SLAs) for the services leveraged NC Ed Cloud Opt-in Agreements	
	Goal: Upload and contribute to DPS-controlled servers will ensure that references will be pre-filtered and censored before children access material.		CIPA Content Filtering Reports	

1. Statewide Shared Services Model				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	Responsible Party: Teacher, IT leadership, ET			
	Goal: Children will rely on, and access, school-controlled servers for research instead of searching on Google, Yahoo, or Wikipedia. Responsible Party: Teacher, IT leadership, ET			

Strategic Priority 2: Universal Access to Personal Teaching and Learning Devices

Essential Questions

What is universal access to personal teaching and learning devices?

Why do our teachers and students need access to personal teaching and learning devices?

How will we provide ample access to individual teaching and learning devices?

What models can be used for implementing universal access to personal teaching and learning devices in our LEA/Charter.

Current Status and Moving Forward

At DPS, universal access to personal teaching and learning devices is the availability of a technology device to all students and teachers. We also refer to these initiatives as “1:1 initiatives”.

Durham Public Schools (DPS) has recently engaged in several 1:1 initiatives:

1. Southern High - School of Engineering launched an initiative to utilize mobile phones in its mathematics classroom through Project K-Nect.
2. In 2008, DPS provided three schools, Merrick-Moore Elementary, Rogers-Herr Middle, and City of Medicine Academy, each a cart of 30 iPod Touch devices to use with small groups of teachers. This was a pilot initiative to test the abilities of the iPod Touch devices in the DPS classroom. In 2011, using Enhancing Education Through Technology (EETT) funds, DPS awarded three middle schools class sets of iPad devices via a science grant. Those three middle schools were Githens, Shepard and Rogers-Herr.
3. Performance Learning Center is a 1:1 high school that is using Learning Management Systems (LMS) paired with a teacher facilitator that focuses on supporting students who are at risk of failing to graduate.
4. In 2010 the DPS Assistive Technology Center utilized IDEA, Part B ARRA funds to provide 120 separate setting exceptional children classrooms with hardware, specialized software and peripherals to encourage universal access for all students across the district. The funding constituted a unique opportunity to improve our delivery of services and increase access for children with disabilities to their educational environment. The goal was to make improvements in teacher effectiveness and in the equitable distribution of resources from pre-school to high school.
5. In 2011, DPS used Race to the Top (RttT) funds to create 1:1 environments at two schools, W.G. Pearson Elementary (Grades 3-5) and Lowe’s Grove Middle, using iPad devices augmented with a curriculum portal and professional staff development specifically for the iPad device.
6. Hillside New Technology High School is a 1:1 high school focused on STEM (Science, Technology, Engineering and Math) as a part of the New Schools Project.

7. In 2011-12 school year, Hillside High School received a School Improvement Grant, which is being used to increase the ratio of devices to students as 1:3; plans are being made to move the school to a 1:1 for the start of the 2012-13 school year.
8. City of Medicine Academy is anticipating moving to a 1:1 environment for the 2012-13 school year.

At DPS, our teachers and students need access to personal teaching and learning devices for the following reasons:

1. The new NC Information and Technology Essential Standards (NCITES) mandate students use technology to access, organize, design, and share information in order to develop 21st century skills.
2. More and more resources are being digitized and put exclusively online.
3. Each teacher needs a personal device in order to access and analyze the data of his or her students and create 21st century lessons.
4. In accordance with North Carolina's Accountability and Curriculum Reform Effort's (ACRE) Instructional Improvement System (IIS), universal access to personal devices will allow administrators, teachers, students, and parents to access assessments, resources, data, and PD.
5. Assessments are predicted to move from the traditional paper-pencil model to a more online model.
 - a. Achievement Series local assessments
 - b. Online assessments from the State
 - c. Thinkgate Essentials for CTE
 - d. Classroom assessments via Google Forms, Destination Success, student response systems, Exam Gen
 - e. Wireless Generation
 - f. ClassScape
 - g. Scholastic Reading Inventory/Scholastic Math Inventory (SRI/SMI)

DPS plans to provide ample access to individual teaching and learning devices in the following ways:

1. Overcoming current funding limitation by innovation and collaboration.

A major obstacle to making access to personal devices more universal is funding. While noted above all the areas of 1:1 initiatives DPS has undertaken, none currently have a refresh plan after the completion of the grant or program. Infrastructure refresh budget exists today (while not 100 percent appropriated), which will allow the wireless access in the schools, but the sustaining of refreshed teaching and learning devices does not.

Goal IV of the DPS Strategic Plan, Effective Operations, seeks to organize and streamline systems in order to eliminate waste (Charter 25). Savings could be used to fund more 1:1 initiatives.

2. Ensuring a personal teaching and learning device refresh plan for instruction.

DPS is developing at this time a teaching and learning device refresh plan based on the DPS minimum baseline standards, which outlines how schools score in meeting the minimum technology standards for the district. This adheres to Goal III.6 of the DPS SP, in order to give each student in DPS, regardless of which school he or she attends, equitable access to technology equipment. The Minimum Baseline Standards also seeks to eliminate ineffective spending by focusing technology dollars by school priority. The plan will result in a funding request.

3. Including and encapsulating all the quality components that maximize the teaching and learning process using technology.

Access alone is not enough. Available technology must not be out-of-date, must function well, and must be adequately supported. Infrastructure, personnel, and training considerations need to be coupled with all significant purchases, including 1:1 initiatives.

4. Developing a plan for 1:1 expansion, based on past performance of these initiatives and data within DPS and throughout the State and nation.

DPS will closely evaluate the active 1:1 programs by curriculum area to determine expansion opportunities for additional schools.

DPS will evaluate and use, as appropriate and relevant, the following models for implementing universal access to personal teaching and learning devices.

1. North Carolina Learning Technology Initiative Framework (NCLTIF) lists 1:1 initiatives conducted or currently being conducted in the State.
2. The Mooresville Graded School District near Charlotte, North Carolina has implemented a highly successful district-wide 1:1 initiative.
3. Lowes Grove Middle School, who has integrated the 1:1 use of iPads into the core curriculum classroom instruction, will be used as a DPS model.
4. Hillside New Tech School, who has successfully tightly-integrated technology into the curriculum using computers, will be used as a DPS model.
5. A DPS technology team visited Henry County, Virginia where a 1:1 Grades 3-5 iPad program was implemented. The initial visit accomplished the enhanced planning for our specific RtT iPad deployment, but follow-up conversations will be used to continue the inclusion of other entities lessons learned.

Alignment to Other Plans and Initiatives:**Strategic Priority 2: Universal Access to Personal Teaching and Learning Devices**

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

- Online Writing Instruction
 - A web-based formative tool to monitor the progress of students in writing and adjust instruction accordingly.
- NC Falcon
 - Online PD modules focusing on formative assessment.
- Online Assessments

Career and College Ready, Set, Go!

The Instructional Improvement System (IIS) is one of Governor Perdue's Career and College: Ready, Set, Go! projects being developed through North Carolina's Race to the Top grant award.

- Students will use the IIS to engage with powerful resources, take assessments, create work portfolios, and collaborate.
- Teachers will use the IIS to enhance their teaching, analyze student data, and engage in PD.
- Parents will use the IIS to track their child's performance, utilize at-home enrichment activities, and communicate questions and feedback to teachers and/or administrators.
- Administrators will use the systems to view student and teacher reports.

Race to the Top Local and State Scopes of Work

- Objective (C)(3) 1.2: Utilize LEA/Charter and school technology funds to enhance LEA/Charter and school infrastructure to facilitate online real-time assessments at each school.
- Objective (E) (2) 1.1: Implement one of the U.S. Department of Education's four models in each of their lowest-achieving school: turnaround, restart, closure, or transformation.
 - WG Pearson Elementary School, Lowe's Grove Middle School 1:1 iPad initiatives - Transformation Model.
 - Neal Middle School STEM school initiative- Transformation Model.
- Objective (E)(2) 1.2: Engage in NC Comprehensive Needs Assessment, Leadership and Instructional Coaching, PD, change plan and implementation map.

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- WG Pearson Elementary School, Lowe’s Grove Middle School 1:1 iPad initiatives.

DPS Strategic Plan

- Strategic Plan Academic Acceleration Area - Goal 1.7.4 of the DPS Strategic Plan states “expand student 1-1 technology integration” in order to improve student scores on assessments.
 - WG Pearson Elementary School, Lowe’s Grove Middle School 1:1 iPad initiatives.
- Strategic Plan Equitable Standards Area - Goal 3 of the DPS Strategic Plan mandates an Equity Model be created and implemented.
 - DPS Information Technology and ET Departments are currently creating Technology Baseline Standards.

DPS AdvanceEd Accreditation Report

3.11 Coordinates and ensures ready access to instructional technology, information and media services and materials needed for effective instruction.

Priority 2: Universal Access to Personal Teaching and Learning Devices				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Develop a comprehensive sustainable LEA plan for universal access	<p>Goal: All schools and all departments will complete a technology plan based on School Technology Needs Assessment (STNA) for school year 2013-2014, through their MTACs / departmental committees, with guidance from ET and IT that will guide its technology instructional model, technology purchases, and needed support. The schools plans will state how they will meet the district goals within the district plan.</p> <p>Responsible Party: School MTACs, ET, IT</p>	<p>Goal: All schools and departments will make all technology purchases and staffing decisions in accordance to their technology plans. (DPS SP Goals IV.1)</p> <p>Responsible Party: Principals, MTACs</p>	School Technology Plans	
	<p>Goal: Create an in-district grant application for schools to apply to become an TLI-IMPACT</p>	<p>Goal: All schools will complete a technology plan for school year 2014-2015, through their</p>	In-house grant application documentation	

Priority 2: Universal Access to Personal Teaching and Learning Devices				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	<p>model school (one in each area-elementary north, elementary south, middle, high), evaluate applications, and choose winners.</p> <p>Responsible Party: ET, IT</p>	<p>MTACs, with guidance from ET and Information Technology that will guide technology instructional model, technology purchases, and needed support.</p> <p>Responsible Party: School MTACs, ET, IT</p>	<p>explicitly comparing the outcomes of the grant with the grant evaluation criteria</p> <p>Action plan based on grant outcome findings</p>	
	<p>Goal: Begin with the refresh plan. See Priority 1 Goals</p> <p>Responsible Party: DPS leadership ET, IT</p>	<p>Goal: All schools will complete a technology plan based on STNA for school year 2014-2015, through their MTACs, with guidance from ET and Information Technology that will guide technology instructional model, technology purchases, and needed support.</p> <p>Responsible Party: School MTACs, ET, IT</p>	<p>School Technology Plans</p> <p>STNA</p> <p>Refresh plan deployment results</p>	
		<p>Goal: Provide the refresh plan. See Priority 1 Goals (DPS SP Goals IV.1)</p>	<p>Refresh plan deployment results</p>	

Priority 2: Universal Access to Personal Teaching and Learning Devices				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
		Responsible Party: MTACs, Principals, ET, IT		
Communicate plan to all stakeholders.	Goal: Media and Technology divisions will cultivate and communicate a unified message via shared website, regular inter- & intra-departmental and district-wide meetings, and newsletters. Responsible Party: ET, IT Media Services	Goal: Media and Technology divisions will cultivate and communicate a unified message via shared website, regular inter- & intra-departmental and district-wide meetings, and newsletters. Responsible Party: ET, IT Media Services	District Websites (using Website standards)	

Priority 2: Universal Access to Personal Teaching and Learning Devices

Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Increase overall access to personal learning devices.	<p>Goal: Implement technology baseline standards (including minimum standards for new purchases as well as removal of outdated equipment) to approach the TLI-IMPACT Model’s recommendations across the district to increase equity.</p> <p>Responsible Party: ET, IT Principals, Finance Department</p>	<p>Goal: Monitor and evaluate the technology baseline standards for new purchases as well as outdated equipment to approach the TLI-IMPACT Model’s recommendations across the district to increase equity.</p> <p>Responsible Party: ET, IT</p>	<p>Annual Minimum Technology Baseline Standards Scorecard</p> <p>Refresh plan deployment results</p>	
	<p>Goal: Conduct a district-wide cost benefit analysis for 1:1 environments, including hardware refresh, recurring software costs, electronic textbooks, ancillary materials, infrastructure, etc.</p>		<p>Cost benefit documentation</p>	

Priority 2: Universal Access to Personal Teaching and Learning Devices				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	Responsible Party: ET, IT			
Utilize personal learning devices to promote student owned learning.	Goal: Conduct surveys and PD in accordance with Priority 5's stated goals. Responsible Party: ET, IT, Principals, MTACs	Goal: Conduct surveys and PD in accordance with Priority 5's stated goals. Responsible Party: ET, IT, Principals, MTACs	Survey results	

Strategic Priority 3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Essential Questions

What are digital teaching and learning resources? What are digital textbooks?

Why do teachers and students need access to digital teaching and learning devices?

What are the benefits of digital textbooks?

What are open educational resources and how can they be used?

How can access to these resources be increased in our LEA?

Current Status and Moving Forward

At DPS, we consider digital teaching and learning resources electronic tools that can be used by either teachers or students to address learning needs. These can be either purchased or accessed for free, as in the case of open source software.

Digital textbooks are an electronic version of a book. These could be as simple as an Adobe PDF formatted document, an online book accessed through a student's web browser software or a fully digitized e-book requiring a reader of some sort (such as Kindle or Nook).

There are a number of reasons to use digital devices and teaching techniques in education.

DPS students and teachers need access to digital textbooks because of the following:

1. First, many careers for which students are preparing use a number of such devices or skills. For instance, in some of our Art departments, the dance classes frequently use audio and video equipment in preparing for performances. They record rehearsals/performances and then critique themselves seeing the show as the audience would. This allows them to improve prior to the actual performance. They also use audio devices to create or edit the soundtrack they will use.
2. Online resources are critical in classrooms and media centers as well. Students with access to online journals and blogs can improve their writing skills as well as their reading skills. They can easily collaborate with each other using online discussion forums and wikis. Teachers can use personal websites such as Quia or Moodle to assess their students' knowledge. They can also use these sites to share resources such as notes, slideshows and assignments. Also, some departments like Career Technical Education (CTE) use online testing. New to the district just last year is the Elements testing environment which will be used for our VoCats testing at the end of this year.

Although paper books remain popular, many sellers are now offering both traditional and digital formats for their products. This is a change that will eventually become more prevalent for education as well.

3. Digital device content is more current.

4. The ability to get to content faster is a tremendous advantage.
5. Indexing and bookmarking allow students and teachers to easily gain direct access to where the attention should be.
6. DPS is rolling out Parent Assistant via Charter 18 of the DPS SP. Part of that project's scope is to analyze how we can automate progress reports. Families would have access any time they had a question, helping to catch students before their grades are impacted within a specified period of time. It also will encourage students to stay focused on their grades as their parents can view those grades at random intervals if they desired.

Digital textbooks have numerous benefits.

There are many formats that we need to decide upon at DPS. By using a simple PDF format document, students have access to relatively small documents that are searchable and readable. By using online textbooks, students also have access to the text anywhere they can access the Internet. DPS should provide students with eReaders. If the compatible book format is given to them, they also have the ability to annotate information as well as highlight important passages or phrases as they are reading.

Another benefit to digital textbooks relates to updating information. Over time, textbooks require updating. In the case of using traditional books, schools and districts have to wait until the next cycle to replace old or outdated books. Although some teachers may find out about changes and verbally share this information with their students, it surely does not happen for all teachers. Digital books are easier to update depending on the format one uses. It can be as simple as logging into the book online or perhaps downloading a new version, such as how one's operating system installs updates regularly. It is critical that students, and teachers, have the most up-to-date information in these ever changing times.

Also, digital books are generally lower in cost than their paper counterparts. Some analysis shows for example a textbook (Digital Multimedia) on the Barnes and Noble website at a noticeable cost difference. The hardcover that is sitting on the shelf sells for \$77.51 new. The Nook version sold for \$45.48. That's a savings of almost \$30 per book! Imagine cutting the cost of all textbooks in DPS by almost 50%! Numerous school media centers throughout the district are now purchasing eBooks which can be checked out by students and staff and read on desktops, laptops, iPads and eReaders.

One final benefit that is often overlooked involves the health of our students. Most students carry around extremely large and heavy bags full of books. This has a negative impact on them as it can put strain on their body. Being able to carry around a lightweight e-reader with all their textbooks and notes is a more ergonomic solution.

Other areas are:

- Better for the environment - going green
- Allows for differentiation

- Career College and Life readiness skills
- Total Cost of Ownership (TCO) - upfront costs with devices and ongoing purchase of new books

What are open educational resources and how can they be used?

According to Wikipedia:

"Open educational resources (OER) are digital materials that can be re-used for teaching, learning, research and more, made available for free through open licenses, which allow use of the materials that would not be easily permitted under copyright alone."

These include a variety of assets including:

"Learning content includes courses, course materials, content modules, learning objects, collections, and journals. Tools include software that supports the creation, delivery, use and improvement of open learning content, searching and organization of content, content and learning management systems, content development tools, and online learning communities. Implementation resources include intellectual property licenses that govern open publishing of materials, design-principles, and localization of content. They also include materials on best practices such as stories, publication, techniques, methods, processes, incentives, and distribution."

These resources can be used by students and teachers alike, for free. It gives them a resource to pull information for lessons or when completing assignments for their classes. It is a stockpile anyone in education can visit to access shared lesson plans and assignments without breaking copyright laws. Such resources can provide classes without access to standard software the ability to use the same sort of tools for free (such as Inkscape for vector graphics, Gimp for bitmaps or OpenOffice or Google Docs in place of Microsoft Office) in place of their expensive counterparts. There are numerous sources of information, applications and content available online for free.

Some schools are using wikis to collaborate within our like-like groups for PLCs. On top of that, some departments take part in a statewide PLC on Moodle. With regard to students, Moodle is used, which is provided through LearnNC for free, to distribute information, conduct formative assessments through online discussion, journaling and giving quizzes in preparation throughout the year for their summative tests. Students have access to this information from anywhere they can access the Internet and by posting the lecture information online, students can focus more on understanding a lecture and asking questions for clarification rather than writing notes in their notebook. Some teachers also direct students to a variety of open source software for use in their homes to continue exploring the skills taught in class while using expensive industry-standard software in school. Other teachers are using Quia to reinforce student learning through activities shared by teachers of the same curriculum statewide.

A lot of these resources are available online right now.

In terms of digital textbooks, DPS could make the move from traditional books to eBooks through eReaders. Providing teachers and students access to information, support, and

training on free educational resources online would also help increase use of these resources. Wonderful things have been done in CTE in terms of teachers using Quia and Moodle websites as educational tools both with their students and to help improve their ability to collaborate through statewide PLCs. Access to such resources has to be verified and approved by the IT department, software needs to be downloaded, and teachers need training.

DEPOT is our DPS' stop place for maintaining digital resources.

Race to the Top (RttT) project created a curriculum portal for the 21st century, that is aligned to the core curriculum standards. This is being used today by Lowes Grove Middle School and WG Pearson Elementary School; plans are to expand to other schools and allow access by teachers, students, and eventually parents.

Alignment to Other Plans and Initiatives:**Strategic Priority 3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks**

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

Update the analysis of the technology infrastructure needed to support a 21st century curriculum and assessment system and to move additional testing to appropriate technology formats. This analysis will allow the transition from a paper-based assessment system to one that takes greater advantage of technology.

Develop a next generation assessment system which includes formative, benchmark and summative assessments based on the new standards.

Career and College Ready, Set, Go!

Promises to benefit students by providing access to technology to support learning. By providing access to digital teaching and learning resources (including digital textbooks), DPS will provide students with high quality resources specifically aligned with core subject areas. These digital resources will maximize instructional time for teachers and differentiate learning so that students can access content on an individualized comprehension level. Anytime access to quality, customized, and current information will better prepare our students for success in college or technical careers.

Race to the Top Local and State Scopes of Work

DPS has committed to transforming three of its schools as detailed in their RttT local scope of work. As part of this transformation effort, Lowes Grove Middle and WG Pearson Elementary will implement the Apple 1:1 iPad solution as a technology integration tool; Neal Middle School will implement STEM as a tool for instruction. Students and teachers in these schools will have the tools they need to access digital teaching and learning resources, including digital textbooks. DPS must provide digital content aligned specifically to Common Core and NC Essential Standards to meet the diverse needs of these students.

DPS Strategic Plan

Goal I of the Academic Acceleration Strategic Area has several strategies that have identified portals for the teaching and learning experience at DPS. Strategy I.7 Strategy 2 1:1 initiative created a portal aligned to the common core standards.

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2012 – June 30, 2013	July 1, 2013 – June 30, 2014	Evaluation Methods(s)	DPI Use
Shift from traditional print and paper-based resources to affordable, current online resources	<p>Goal: DPS will target secondary social studies courses to migrate from a print textbook to digital using LearnNC.</p> <p>Responsible Party: Social Studies Secondary Director, Teachers, Educational Technology</p>	<p>Goal: Offer professional development to DPS educators to introduce and support the use of digital resources and increase the number of available resources to educators.</p> <p>Responsible Party: Educational Technology</p>	Comprehensive Training Plan using Evaluation Process, Utilization Reports from digital resources	
	<p>Goal: DPS will offer professional development to DPS educators to introduce and support the use of digital resources and increase the number of available resources to educators. (DPS SP Goal IV.1)</p> <p>Responsible Party: Educational Technology</p>	<p>Goal: Educational Technology will promote, educate, and support educators in utilization of digital textbooks and resources. (DPS SP Goal IV.1)</p> <p>Responsible Party: Educational Technology</p>	Comprehensive Training Plan using Evaluation Process, Utilization reports	
	<p>Goal: Development of policy to support/reallocate funds to support the purchasing of additional online resources in</p>		Policy, Purchase data comparisons of digital vs. paper resources	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2012 – June 30, 2013	July 1, 2013 – June 30, 2014	Evaluation Methods(s)	DPI Use
	<p>place of traditional paper-based resources.</p> <p>Administration will encourage and provide ample opportunities for staff to receive professional development. (DPS SP Goal IV.1)</p> <p>Educational Technology will promote, educate, and support educators in utilization.</p> <p>Responsible Party: Educational Technology, DPS leadership, principals</p>		Innovative Budget Comparisons	
	<p>Goal: Conduct a feasibility study for the implementation of a data warehouse and Operational Store solution for district-wide implementation ensuing NC Education Cloud offerings are analyzed. (DPS SP VI.1)</p> <p>Responsible Party: Information Technology, DPS leadership,</p>	<p>Goal: Execute the recommendations of the data warehouse and Operational Data Store solution. (DPS SP VI.1)</p> <p>Responsible Party: Information Technology, DPS leadership, Research, Development and Accountability (RDA) Department</p>	Feasibility study outcome	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2012 – June 30, 2013	July 1, 2013 – June 30, 2014	Evaluation Methods(s)	DPI Use
	Research, Development and Accountability (RDA) Department			
	<p>Goal: Develop and implement a district-wide, sustainable, and affordable Learning Management System (LMS) and/or Instructional Management System (IMS) to be utilized by principals, teachers and students. This system will be a content repository, Sharable Content Object Reference Model (SCORM) compliant system for digital materials; including but not limited to digital textbooks, Online resources, common core standards, course content, syllabi, and instructional materials that may include text, multimedia, streaming video, and interactive modules. The audience for this content is students, which is to be presented in a way to help accelerate them with their learning.</p>	<p>Goal: Develop and implement a district-wide, sustainable, and affordable Learning Management System (LMS) and/or Instructional Management System (IMS) to be utilized by principals, teachers and students.</p> <p>Responsible Party: Educational Technology, Information Technology, DPS leadership, principals, teachers</p>	LMS Project Plan, Comprehensive Training Plan using Evaluation Process, LMS utilization reports	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2012 – June 30, 2013	July 1, 2013 – June 30, 2014	Evaluation Methods(s)	DPI Use
	<p>Responsible Party: Educational Technology, Information Technology, DPS leadership, principals, and teachers</p>			
	<p>Goal: Provide an affordable, user friendly, rigorous web-based credit recovery system for high school students. Reduce the redundancy of the credit recovery programs for high schools.</p> <p>Responsible Party: Educational Technology, CTE Director, DPS leadership, and HS principals</p>	<p>Goal: Provide an affordable, user friendly, rigorous web-based credit recovery system for high school students. Reduce the redundancy of the credit recovery programs for high schools.</p> <p>Responsible Party: Educational Technology, CTE Director, DPS leadership, and HS principals</p>	<p>Apex Learning, EdOptions, and Learn Mate and NCVPS Reports</p> <p>Purchase Orders</p> <p>Decommission (reduction) software plan and outcome</p> <p>Comprehensive Training Plan using Evaluation Process</p>	
<p>Utilize procured resources such as NC Wise Owl, and other open education resources</p>	<p>Goal: DPS will provide a one-stop location that details available online open education resources that are recommended by the district as viable and quality resources. See Priority 4 Goals. (DPS SP Goal IV.1)</p>	<p>Goal: Increase use the DEPOT</p> <p>Responsible Party: DEPOT (Durham's Enterprise Portal of Online Tools) Redevelopment Team, Instructional Facilitators, Educational Technology</p>	<p>DEPOT Usage reports</p> <p>TCO</p>	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2012 – June 30, 2013	July 1, 2013 – June 30, 2014	Evaluation Methods(s)	DPI Use
	<p>Responsible Party: DEPOT (Durham's Enterprise Portal of Online Tools) Redevelopment Team, Instructional Facilitators, Educational Technology</p>			
	<p>Goal: Expand the Google Apps for Education Pilot utilizing collaborative tools for staff and utilize Gmail for student email.</p> <p>Responsible Party: Google Apps for Education Implementation team</p>	<p>Goal: Expand the Google Apps for Education Pilot utilizing collaborative tools for staff and utilize Gmail for student email.</p> <p>Responsible Party: Google Apps for Education Implementation team</p>	Google Apps for Education Point of Contact document & Pilot Survey Results	
	<p>Goal: Provide affordable subscription to digital content such as Destination Success, Destiny, and SAS Curriculum Pathways, WorldBook, while investigating redundant software that may become free through NC WISE OWL.</p> <p>Responsible Party: Educational</p>	<p>Goal: Provide affordable subscription to digital content such as Destination Success, Destiny, and SAS Curriculum Pathways, WorldBook. Investigate redundant software that may become free through NC WISE OWL.</p> <p>Responsible Party: Educational</p>	<p>Utilization Reports</p> <p>Purchase Orders</p> <p>Decommission software plan and outcome</p>	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1	Year 2	Yearly Evaluation	
	July 1, 2012 – June 30, 2013	July 1, 2013 – June 30, 2014	Evaluation Methods(s)	DPI Use
	Technology	Technology		
	<p>Goal: Provide subscriptions and implementation to summative, and formative assessment systems such as Scantron, Wireless Generation (MClass), ClassScape, Scholastic Reading Inventory (SRI), Scholastic Math Inventory (SMI) and School Reading Counts (SRC).</p> <p>Responsible Party: Research, Development and Accountability (RDA) Department, Educational Technology</p>	<p>Goal: Provide subscriptions and implementation to summative, and formative assessment systems such as Scantron, Wireless Generation (MClass), ClassScape, Scholastic Reading Inventory (SRI), Scholastic Math Inventory (SMI) and School Reading Counts (SRC).</p> <p>Responsible Party: Research, Development and Accountability (RDA) Department, Educational Technology</p>	<p>Utilization Reports</p> <p>Purchase Orders</p>	
<p>Use digital content aligned specifically to Common Core and NC Essential Standards</p>	<p>Goal: DPS will use DEPOT to train teachers on the alignment to common core and essential standards. See Priority 4 Goals. (DPS SP Goal IV.1)</p> <p>Responsible Party: C&I staff and Assessment For Learning staff, Instructional Facilitators,</p>	<p>Goal: Use DEPOT to train teachers on the alignment to common core and essential standards. See Priority 4 Goals.</p> <p>Responsible Party: C&I staff and Assessment For Learning staff, Instructional Facilitators, and Educational Technology</p>	<p>DEPOT Usage Reports</p> <p>Comprehensive Training Plan with Evaluation Process</p>	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation Evaluation Methods(s)	DPI Use
	and Educational Technology			
<p>Ensure equity to digital teaching and learning resources from school to school in your LEA.</p>	<p>Goal: DPS will provide equitable environments and resources that enable educators to access digital teaching and learning resources through a refresh program. See Priority 1 Goals.</p> <p>Administration will delegate site staff to work with community partners, PTA, budget, etc. to increase technology within its building.</p> <p>Ed Tech Staff will promote, educate, and support educators in utilization of digital teaching and learning resources.</p> <p>Create an equitable foundation for online/distance learning site licenses for each high/secondary school.</p>	<p>Expand the refresh program. See Priority 1 Goal.</p>	<p>DEPOT Usage Reports</p> <p>Refresh plan deployment results</p> <p>Training Plan using Evaluation Process</p> <p>Annual Scorecard for Minimum Technology Baseline Standards</p> <p>Online digital inventory results</p>	

3: Statewide Access to Digital Teaching and Learning Resources, Including Digital Textbooks

Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation Evaluation Methods(s)	DPI Use
	Responsible Party: High School Principals, ET Team			

Strategic Priority 4: A Statewide Model of Technology-Enabled Professional Development

Essential Questions

What skills are needed to transition to digital teaching and learning resources?

How can these skills be delivered and sustained to our LEA teachers and administrators?

How do teachers, administrators, and staff work with colleagues to guide our LEA toward more effective uses of 21st century tools for teaching, learning, and managing instruction?

How are teachers, administrators, and staff prepared to understand, implement, and assess the span of skills and processes that students need to succeed in the 21st century?

How are teachers, administrators, and staff prepared to apply 21st century assessment systems to inform instruction and measure 21st century knowledge, skills, performance, and dispositions?

Current Status and Moving Forward

DPS provides PD through online resources, district applications, face-to-face learning and webinars. PD that is focused on effective use of technology is necessary for teachers to maintain proficiency and to have a positive impact on student learning.

Durham Public Schools uses:

MyLearningPlan, which is a flexible online system designed for planning, management, evaluations, and reporting of PD offerings to support focused educator growth resulting in effective classroom instruction and improved student achievement. All PD offerings for the district are listed in the online catalog. District staff members register for workshops, approve attendance rosters, and track continuing education units (CEU) in one online location. This system is linked to North Carolina Department of Public Instruction's Human Resource Management System (HRMS), which houses employees' professional licenses and credentials.

Atomic Learning which offers on-demand solutions for 21st century Skills PD, technology integration and software.

The district provides support for teaching and learning through an online repository, **DEPOT** (Durham's Enterprise Portal of Online Tools), of curriculum support documents, including curriculum overviews, instruction and assessment calendars, corrective instruction lessons, resources, lesson plans, and unit plans. All teachers have access to this portal of information and are required to use selected documents when planning instruction.

In addition, the district has an ET team that provides face-to-face and blended training for the district, training for individual schools, teachers and any employees needing curriculum support for district software applications or online resources.

In planning for the 2012-13 and 2013-14 school years, DPS leadership recognizes the silos that exist in the PD content creation, use, and delivery. The vision for PD provides a well-defined

framework that includes the merging of those silos and the integration of existing resources into one comprehensive framework where teachers can learn and use proven content and receive high quality PD. This framework will include a variety of approaches:

- Online Web-based Management of PD
- Blended systems on the Web
- Online support
- Face-to-face training
- Brokered external providers
- Internal ET team resources
- Individualized professional growth plans

The framework will be developed based on a data-driven needs assessment. The data will be analyzed through a survey of individuals, support plan information, Small Goal Assessments (SGAs), Cumulative Assessments (CAs), and other applicable data.

The vision for the framework is inclusive of all DPS employee staff, not just Curriculum and Instructional staff.

Many skills are needed at DPS to transition to digital teaching and learning resources. Those include, but are not limited to:

- Awareness of technology tools (both hardware and software) and resources (people with expertise within each school, within the district and at vendor sites) available to schools.
- Basic operational knowledge of technology tools (both hardware and software) available to schools.
- Understanding of commonality between tools (transferrable skills) so new tools can be adopted more quickly.
- Content creation - empowering teachers to create content.
- Self-learning skills – exploratory only.

Skills can be delivered and sustained in Durham Public Schools' K-12 instructional workforce by providing:

- Ongoing training in basic operation of technology tools (both hardware and software).
- Informal training through professional learning networks - groups that can be joined such as Google Groups.
- Just-in-time (JIT) learning to address specific, targeted skills such as Atomic Learning.
- Informal self-paced training.
- Embedded and integrated technology into instructional initiatives such as Assessment for Learning (AFL) - integrate technology skills into training for AFL.
- Shared technology expertise among teachers in collaborative instructional teams.
- Identified experts on a particular tool in school or department so other staff members can use them as a resource.
- Advanced training on tools for building experts.

- Training the trainer models - training a small group of trainers and they deploy training at the school level.
- Differentiated training sessions based on attendee's skill level and their anticipated role using the tool.

DPS can accomplish this through keeping PLC days sacred for learning and through the provision of release times for users and experts to attend in depth training and practice.

Teachers, administrators, and staff work with colleagues to guide their school system toward more effective uses of 21st century tools for teaching, learning, and managing instruction by ensuring:

- Instructional leaders within the schools model effective use of 21st century tools such as assessing teachers using an iPad with Google form.
- Shared best practices within each school in collaborative teams such as PLCs.
- Shared best practices in larger collaborative setting within the district such as DPS Technology Showcase.
- Shared best practices with educators outside the district such as State technology conferences.
- Effective tools (hardware and software) and implement them over a long enough timeframe to measure the impact on student learning.
- Implemented tools that help teachers, administrators and staff perform required tasks, and remove option for less effective tools. An example of using electronic forms versus a paper form.
- Consistency within the district for use of core tool set.
- Encouraged innovation.

Teachers, administrators, and staff are prepared to understand, implement, and assess the span of skills and processes that students need to succeed in the 21st century by:

- Ensuring NCITES are correlated with standard course of study for other content areas.
- Focusing on building advance competencies on required software.
- Using tools that can be used in many different areas - Interactive White Boards, projectors.

Teachers, administrators, and staff are prepared to apply 21st century assessment systems to inform instruction and measure 21st century knowledge, skills, performance, and dispositions by:

- Demonstrating the tools in front of students - If we want students to learn tools online then we should be using those online tools - operations and learning.
- Using the Online assessments for both students and staff.

Alignment to Other Plans and Initiatives:**Strategic Priority 4: A Statewide Model of Technology-Enabled Professional Development**

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

(In addition to the ACRE alignment in the State Plan example) NC Falcon (North Carolina Formative Assessment Learning Community's Online Network) has been developed in an effort to provide North Carolina teachers with a basic understanding of formative assessment and illustrate the role it should play in a comprehensive, balanced assessment system. The online PD modules located in NC FALCON are intended to serve as a primer for teachers to learn more about the impact formative assessment can have on their instruction and help their students achieve targeted learning goals. This paradigm shift from face-to-face training to electronic PD delivery empowers teachers and allows them to access training according to their schedules. The PD modules are self-paced, do not have to be completed in one session, and may be accessed 24/7.

Career and College Ready, Set, Go!

Put more technology into the hands of students and teachers to increase individualized learning options. Increase the use of technology for providing PD opportunities for teachers.

Race to the Top Local and State Scopes of Work

- Objective D(5) 1.1: Provide access to effective, high-quality, job-embedded, data-informed PD and support for educators with objectives aligned to the Race to the Top Initiatives.
- Objective D(5) 1.2: Measure, evaluate and improve PD and support.

State Board of Education Goals

- Furnish educators the means to promote and sustain skills and professional standards needed for 21st century delivery of instruction.
- Support teachers as they apply 21st century teaching and learning research which promotes high student achievement and engagement.
- Compelling environment for shared vision and leadership as the need for change is disseminated.
- Support leaders as they model and promote equitable and effective use of emerging and innovative resources and tools for meaningful teaching and learning.
- Provide systems which support achievement standards while supporting accountability, goals and appropriate sanctions.
- Compel financial planning and budgeting which focus on priorities identified as necessary for student achievement in 21st century classrooms.

NC Teacher Evaluation Process

Standard I: Teachers Demonstrate Leadership

- Teachers demonstrate leadership in the school.

Teachers provide input in determining the school budget and in the selection of PD that meets the needs of students and their own professional growth.

- Teachers lead the teaching profession.

Teachers promote professional growth for all educators and collaborate with their colleagues to improve the profession.

Standard V: Teachers Reflect on Their Practice

- Teachers link professional growth to their professional goals.

Teachers participate in continued, high quality PD that reflects a global view of educational practices; includes 21st century skills and knowledge; aligns with the State Board of Education priorities; and meets the needs of students and their own professional growth.

Component 8: Professional Development Plans

- Professional Development Plan

Teachers who are rated at least “Proficient” on all the Standards on the Teacher Summary Rating Form shall develop a Professional Development Plan (PDP) designed to improve performance on specifically identified Standards and Elements.

- Support Plans

A teacher shall be placed on a Support Plan whenever he or she:

- A. Is rated “Developing” on one or more Standards on the Teacher Summary Rating Form; and
- B. Is not recommended for dismissal, demotion or nonrenewal.

A Support Plan shall, at a minimum, identify the Standards and Elements to be improved, the goals to be accomplished and the activities the teacher should undertake to achieve proficiency, and a timeline which allows the teacher one school year to achieve proficiency. A Support Plan that meets those criteria shall be deemed to satisfy the requirements of N.C. Gen. Stat. § 115C-333(b).

- Action Plans

A teacher shall be placed on an Action Plan whenever he or she:

- A. Is rated
 - 1. “Not Demonstrated” on any Standard on the Teacher Summary Rating Form; or
 - 2. “Developing” on one or more Standards on the Teacher Summary Rating Form for two sequential years: and
- B. Is not recommended for dismissal, demotion or nonrenewal.

The Action Plan shall, at a minimum, identify the Standards and Elements to be improved, the goals to be accomplished, the activities the teacher shall complete to achieve proficiency, a timeline for achieving proficiency within one school year or such shorter time as determined by the LEA. An Action Plan that meets those criteria shall be deemed to satisfy the requirements of N.C. Gen. Stat. § 115C-333(b).

DPS Strategic Plan

Strategic Area Talent Development - DPS Strategic Plan Goal V.1

DPS will employ and retain a highly-qualified workforce that engages in continuous improvement through ongoing, high-quality PD (a baseline will be established).

DPS Strategic Plan Strategies

Strategic Area Effective Operations - Goal IV.1: Strategy IV.1.2

- Establish and implement technology training and skill development standards for all employees to increase productivity, student outcomes and professional growth opportunities.

Strategic Area Talent Development - Goal V.1: Strategy V.1.5

- Design and implement, in partnership with North Carolina Central University and other local education systems, a leadership and PD framework that is differentiated based upon need, aligned to the NC Executive and Teacher Evaluation Instrument, and anchored in the continuous improvement of leadership practices.

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Implement a plan for embedded technology-enabled professional development for teachers and administrators.	<p>Goal: Establish the PD framework, merge existing content, and begin utilizing all avenues of the framework. Align and incorporate the framework to the IIS as it is delivered by the State. (DPS SP Goals IV.1 & V.1)</p> <p>Responsible Party: Human Resources Division; Executive Director of Curriculum, Instruction and Assessment</p>	<p>Goal: Use the PD framework developed. (DPS SP Goals IV.1 & V.1)</p> <p>Responsible Party: Human Resources Division; Executive Director of Curriculum, Instruction and Assessment</p>	Training evaluations and evidence of PD material mastery with material artifacts required with the professional teaching standards.	
Support models that promote and further the ideals of technology-enabled and integrated professional development	<p>Goal: Schools shall focus their current software portfolio holdings to increase the probability that most staff will have a realistic opportunity to develop the knowledge and application of technology solutions/areas to create the greatest advantage possible.</p>	<p>Goal: DPS shall develop the infrastructure and staffing capabilities to capture and store online audio and video presentations and technology trainings to reduce the overall costs of PD by greatly multiplying the amount of high-quality self-paced, asynchronous</p>	<p>Software Portfolio Comparisons</p> <p>Innovative Budget Comparisons</p> <p>MCREL reports</p> <p>Conference</p>	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
	(DPS SP Goals IV.1 & V.1) Responsible Party: IT leadership, Executive Director of Curriculum, Instruction and Assessment, Financial leadership	learning opportunities. (DPS SP Goals IV.1 & V.1) Responsible Party: IT leadership, Executive Director of Curriculum, Instruction and Assessment	attendance 21st Century Assessment	
Prepare media specialists and instructional technology facilitators to support digital reform.	Goal: DPS shall incentivize its own subject matter experts to create elements of PD online curricula and training courses that are owned by Durham Public Schools. (DPS SP V.1) Responsible Party: IT leadership, Executive Director of Curriculum, Instruction and Assessment	Goal: DPS shall incentivize its own subject matter experts to create elements of PD online curricula and training courses that are owned by Durham Public Schools. (DPS SP V.1) Responsible Party: IT leadership, Executive Director of Curriculum, Instruction and Assessment	Online Curriculum Inventory	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Deliver Common Core and Essential Standards training to teachers using integrated technology as a model for further classroom integration.	<p>Goal: Train instructional facilitators and media and technology facilitators through our train-the-trainer model. (DPS SP V.1)</p> <p>Responsible Party: ET, school-level technology leadership</p>	<p>Goal: Train instructional facilitators and media and technology facilitators through our train-the-trainer model. (DPS SP V.1)</p> <p>Responsible Party: ET, school-level technology leadership</p>	Training Plan using Evaluations Process	
Prepare staff for online assessment delivery.	<p>Goal: Inventory our current PD offerings to be aligned to the IIS when available. Begin incorporating State IIS into the framework, when available. (DPS SP V.1)</p> <p>Responsible Party: ET, Executive Director of Curriculum, Instruction and Assessment</p>	<p>Incorporate the State IIS into DPS framework (DPS SP V.1)</p> <p>Responsible Party: ET, Executive Director of Curriculum, Instruction and Assessment</p>	PD Inventory Comparisons	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
Prepare students for online assessment delivery.	<p>Goal: Begin the refresh plan that will provide adequate technology in the classrooms to support online assessment. See Priority 1 Goal (DPS SP Goals III.1 & IV.1)</p> <p>Responsible Party: IT</p>	<p>Goal: Provide the refresh plan that will provide adequate technology in the classrooms to support online assessment. See Priority 1 Goal</p> <p>Responsible Party: IT</p>	Refresh plan deployment results	
	<p>Goal: Provide the Assessment for Learning program using the Achievement Series solution. (DPS SP I.6)</p> <p>Responsible Party: Research and Accountability</p>	<p>Goal: Provide the Assessment for Learning program using the Achievement Series solution. (DPS SP I.6)</p> <p>Responsible Party: Research and Accountability</p>	<p>Scantron Project Status Reports</p> <p>Assessment Results</p>	
Provide ongoing support and professional development necessary for use of data to	<p>Goal: Train principals on the use of data to improve instructional decision making.</p>	<p>Goal: Train principals on the use of data to improve instructional decision making.</p>	Training Plan and Schedule using Evaluation Process	

4: A Statewide Model of Technology-Enabled Professional Development

Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Evaluation Method(s)	DPI Use
inform instruction.	Responsible Party: Research and Accountability, Principals	Responsible Party: Research and Accountability, Principals		
Provide support for teacher and administrator progress and evaluation according to MCREL standards.	Goal: Develop new teacher MCREL training. (DPS SP V.1) Responsible Party: Human Resource Division	Provide MCREL training for new teachers. (DPS SP V.1) Responsible Party: Human Resource Division, Administrators, ET	Training Materials and Schedule MCREL reports	

Strategic Priority 5: 21st Century Leadership for All Schools and Districts

Essential Questions

Are your LEA/Charter leaders prepared to lead and create a vision for 21st century education?

Are mechanisms in place for school leaders to create 21st century learning cultures?

Are professional growth programs/opportunities available to prepare teachers and administrators to lead 21st century learning environments?

Current Status/Moving Forward

DPS leaders are prepared to lead and create a vision for 21st century education.

In 2007, our Board of Education developed a Theory of Action which included a vision, mission, core beliefs, commitments and district goals to affect transformative change within the district. In 2011, under the leadership of a new administration, the DPS SP was launched, addressing six strategic areas and 24 goals. Pertinent goals include the expansion of the implementation of the Design for Accelerated Progress, implementation of the Common Core, the Essential Standards, and the Assessment for Learning Model through the AFL Teacher Leaders and Curriculum, Instruction and Assessment teams. Area Support Teams have been established at each level which includes instructional facilitators and an ET resource specialist for each of the four areas.

Additionally, PLCs are in place in all schools and across all subject areas. In 2010-11 and 2011-12 media and technology cadres/PLCs researched the components of 21st century media and technology programs, the role of media and technology in Assessment for Learning, and the critical need for collaboration with teachers as we began the process of implementing the Information and Technology Essential Skills, Common Core, the subject area Essential Standards and the Assessment for Learning Model.

Teachers and parents have assumed leadership opportunities by serving on School Improvement Teams. Our administration serves on numerous community committees that give stakeholders additional opportunities to contribute to the decision making process, such as City-County Leadership Council, East Durham Children's Initiative, Durham's Partnership for Children, and other leadership boards. Currently, programs are in place to foster curriculum leadership such as Aspiring Leaders Program and the Assistant Principal Academy. Identification of highly qualified candidates to participate in regional education leadership academies (RESA) has also occurred.

Moving forward, DPS will continue to strive towards fulfilling the vision and goals outlined in our DPS SP. As we implement the Common Core, the Essential Standards and the North Carolina Professional Teaching Standards, the leadership potential of the area instructional facilitators and ET resource specialists will be leveraged to a greater degree to build capacity and technology proficiency among media specialists, technology facilitators, and classroom teachers.

Greater district-wide support for the NCDPI IMPACT Model is also needed to ensure that information and technology skills are embedded within the Common Core and the Essential Standards. To garner support for this model and to guarantee a clear and unified technology vision system-wide, a standing district MTAC will be formed.

Many mechanisms related to 21st century learning environments are in place or currently being addressed through the DPS SP.

In 2011, DPS IT and ET jointly created a set of Minimum Baseline Technology Standards which addresses equitable access to technology resources and provides purchasing guidelines for schools. A district technology software portfolio has been developed and is maintained through a software approval process. One to one iPad initiatives are underway at one middle school and one elementary school through RttT funding.

A partnership with Verizon to support STEM has funded iPads for the Performance Learning Center staff members, one of Durham's several new small high schools which offers students the opportunity for online learning with internships and job shadowing in a unique setting. Additionally through EETT funds, three middle schools were awarded 30 iPads and probes for use in the 8th grade science curriculum through an internal grant application process.

A STEM/STEAM curriculum is currently being implemented at Sandy Ridge Elementary School, Neal Middle School, Southern School of Engineering and New Tech High School. A STEAM Summer Camp is being planned for summer 2012. Career and Technical Education classes are in the process of being audited and realigned to the STEAM/STEM model. Blended/Virtual Learning environments including NCVPS, EdOptions, APEX Learning and PD teleconferences with North Carolina School of Science and Math are in place and expanding. Recently, rather than planning traditional media centers at two new DPS schools, City of Medicine Academy designed a Cybrary and a Learning Commons was created at Lakewood Montessori Middle School.

These new models for information access and delivery include increased access to digital resources, eReaders and more flexible learning spaces. Lucas Middle School, slated to open in August of 2012, will set a new standard in technology-rich learning environments, featuring a Cybrary, with a strong emphasis on digital resources, access to personal learning devices, and a collaborative, “cyber-café” atmosphere. As more schools are built and infrastructure reliability increases, DPS will continue to analyze and align media and technology programs with 21st century learning environments including a shift towards electronic/digital resources, eReaders and other mobile devices, and flexibly designed learning spaces with maximum access to all resources. Efforts are continuously being made to link families with community agencies such as public libraries, community learning centers and universities to provide access to supplemental resources outside the classroom. Online testing and electronic data reporting systems, including Achievement Series, Education Value Added Assessment System (EVAAS), Program and Project Accountability (PAPA), North Carolina Windows of Information on Student Education (NC WISE) and mClass are utilized throughout the district to provide immediate and intentional use of student achievement data. In addition to the content management system (CMS) that we use today called DEPOT, the district is exploring options for Learning Management Systems (LMS). Additionally, as a means of “going green” and fostering collaboration, increased efforts

are in progress to increase the use of wikis and other web 2.0 tools for instruction and productivity, as well as to streamline internal business communication practices via electronic medium (e-meetings, podcasts, master calendars, etc.).

As DPS moves forward in accordance with our strategic plan, we will expand STEAM and 1:1 instructional programs to enhance student learning. DPS will continue to monitor and evaluate the technology needs of all schools and establish a framework for baseline standards and equitable distribution of technology systems and services, based upon available resources.

DPS will develop sustainable budget/financing options to support technology upgrades as part of the annual and long-range budgets and improve technology infrastructure system reliability to enhance productivity and support technology innovation. Additionally, through the leadership of the Area ET Resource Specialists and in accordance with the IMPACT model, DPS will work to ensure that each school has a fully functioning MTAC to provide direction for media and technology programs and create a technology plan driven by the instructional program and intentional technology purchasing.

Numerous professional growth programs/opportunities are available to prepare teachers and administrators to lead 21st century learning environments.

DPS has a full-time PD Specialist for the district. Area Facilitators and Instructional Facilitators provide job-embedded PD in each school. Training on the NC ITES is well underway, utilizing a train-the-trainer model. District level media and technology administrators have provided training for principals, curriculum leaders, school-based media and technology staff and instructional facilitators, who in turn provide training for teachers.

Training on 21st century tools and resources occurs regularly and systematically. Educational Technology Resource Specialists as well as media coordinators and technology facilitators train teachers on Web 2.0 tools, interactive whiteboards, website development, digital resources and numerous applications both within their assignment areas and in after-school workshops that are open to all district staff. The DPS Technology Showcase which features the innovative instructional use of technology by teachers and students is in its sixth year, and continues to expand. In the summer of 2011, the ET Department instituted the DPS Technology Challenge, an online venue for increasing understanding and use of 21st century instructional tools. This self-paced opportunity proved to be quite successful and plans are to continue the Technology Challenge each semester. Additional programs are in place to foster curriculum leadership such as Aspiring Leaders Program and an Assistant Principal Academy.

Identification of highly qualified candidates to participate in regional education leadership academies (RESA) has also occurred. DPS currently partners with numerous civic and faith-based organizations and academic institutions, including Congregations and Neighborhoods, NC Central University, Duke University, and North Carolina School of Science and Math. Through the Superintendent's Business Advisory Council the district maintains strong connections with over 40 area businesses which provide invaluable support for our schools. The development of the DPS Partnership Framework, introduced in the fall of 2011 will assist in identifying, managing and measuring school and district partnerships.

Moving forward, through the leadership of the Area ET Resource Specialists, DPS will develop and pilot a Technology Teacher-Leaders Academy that is linked to the North Carolina Professional Teaching Standards and will produce technology proficient teachers who will in turn prepare other teachers and administrators to lead 21st century learning environments. Additionally, in accordance with the Strategic Plan, DPS will continue to cultivate leadership and expand professional growth opportunities through partnerships with businesses, academic and community organizations. Specifically, in partnership with NC Central University and other local education systems, DPS will design and implement a leadership and PD framework that is differentiated based upon need, aligned to the NC Executive and Teacher Evaluation Instrument, and anchored in the continuous improvement of leadership practices (DPS SP Goal V.1.5, Dec. 12).

Alignment to Other Plans and Initiatives:

Strategic Priority 5: 21st century Leadership for All Schools and Districts

Durham Public Schools will utilize and align with the following key initiatives/plans to reach for the vision and complete the strategic priorities of our plan...

ACRE

Create a comprehensive, intentional PD system delivered by Area teams (Area Facilitators, Instructional Facilitators, and Area ET Resource Specialists) to provide teachers and administrators with the skills and understanding needed to implement the Common Core, the Essential Skills, and the Assessment for Learning Model.

Career and College Ready, Set, Go!

Implement a Leadership Academy –schools need good leaders who know how to motivate teachers and students and have data to make good decisions.

Provide incentives to ensure there are great teachers in every classroom especially in hard to staff schools and/or hard to staff content areas (Science and Math).

Increase the use of technology for providing PD opportunities for teachers.

Race to the Top Local and State Scopes of Work

1.1: Ensure teachers and staff understand the new Standard Course of Study, including the Common Core and Essential Standards, and related assessments; Objective (C)(2) 1.1: Complete a unified strategic plan for the LEA that utilizes data to determine priority goals and activities, and sets targets for performance; Objective (C)(3)1.4: Work as partners with DPI staff to incorporate the IIS into the daily operational aspects of school; Objective D(4)2.3: Establish or extend existing partnerships with North Carolina colleges and universities; Objective D(5)1.1: Provide access to effective, high-quality, job-embedded, data-informed PD and support for educators with objectives aligned to the RttT initiatives; Objective D(5)1.2: Measure, evaluate and improve PD and support

DPS Strategic Plan

DPS Strategic Area Academic Acceleration: Goal I.1: DPS will expand the Implementation of the Design for Accelerated Progress (DAP) model to improve student achievement outcomes as measured by school, district and State assessments; Goal I.4: DPS will expand and monitor the implementation of a comprehensive PreK-12 literacy framework to improve student achievement outcomes as measured by school, district and State assessments; Goal I.6: DPS will implement an assessment for a learning model to improve student achievement outcomes as measured by school, district and State assessments; Goal I.7: DPS will target Science, Technology, Engineering, Arts and Math (STEAM) integration to improve student achievement outcomes as measured by school, district and State assessments;

Strategic Area Communications and Partnerships: Goal II.3: DPS will strategically collaborate with local, regional and global organizations to increase the number of partnerships that support student learning; Goal II.4: DPS will strengthen family connections and

community outreach efforts as measured by increased participation in district-wide events and initiatives;

Strategic Area Equitable Standards: Goal III: DPS will develop and implement an Equity Model to provide baseline and differentiated resources to schools and the district as measured by an annual Equity Report ; DPS Baseline Technology Standards: Goal III (DPS Strategic Plan): DPS will develop and implement an Equity Model to provide baseline and differentiated resources.

Strategic Area Effective Operations: Goal IV.1: DPS will review, restructure and reorganize technology services to better support the ongoing operation of schools and the district (a baseline will be established); Goal IV.2: DPS will enhance processes and practices in all business environments (a baseline will be established).

Strategic Area Talent Development: Goal V.1: DPS will employ and retain a highly-qualified workforce that engages in continuous improvement through ongoing, high-quality PD (a baseline will be established); DPS will implement a competitive recruitment and retention initiative to attract the industry's best and brightest (a baseline will be established. NC Professional Teaching Standards: Goal V.1 (DPS Strategic Plan): DPS will employ and retain a highly-qualified workforce that engages in continuous improvement through ongoing, high-quality PD.

5: 21st century Leadership for All Schools and Districts				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Alignment with ACRE, RttT, DPS Strategic Plan, etc.	Evaluation Methods
Create and lead a vision for 21st century education	<p>Goal: Create and administer a survey to gauge district/public perception of how well DPS is meeting the goals outlined in the Strategic Plan for the 21st century teaching and learning initiatives.</p> <p>Responsible Party: Executive Leadership/ Public Affairs</p>	<p>Goal: Utilize survey results to update/modify DPS Strategic Plan.</p> <p>Responsible Party: Executive Leadership Team</p>	DPS Strategic Plan	Administration of Survey/ Strategic Plan Program Management Portal showing percent complete of strategic goals
	<p>Goal: Establish a standing district Media and Technology Advisory Committee (see narrative for purpose) and</p>	<p>Goal: The district will implement and evaluate the TLI-IMPACT model in the pilot schools.</p>	ACRE	Agendas/ Minutes of district MTAC

5: 21st century Leadership for All Schools and Districts				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Alignment with ACRE, RttT, DPS Strategic Plan, etc.	Evaluation Methods
	<p>develop the plan for implementing TLI-IMPACT model in four pilot schools. This includes performing a gap analysis to identify weaknesses.</p> <p>Responsible Party: Executive Director of Curriculum, Instruction and Assessment; Director of Media and ET, IT leadership</p>	<p>Responsible Party: Executive Director of Curriculum, Instruction and Assessment; Director of Media and ET; district Media and Technology Advisory Committee, IT leadership</p>		
Create 21st century learning cultures	<p>Goal: Develop a plan to expand STEAM and 1:1 instructional programs to reach students with diverse student populations (including AIG, EC, special needs, and at risk students). (DPS SP Goal I.7)</p> <p>Responsible Party: Executive</p>	<p>Goal: Implement the plan to expand STEAM.</p> <p>Responsible Party: Executive Leadership Team; Curriculum, Instruction and Assessment Team, IT leadership, ET, Principals; MTAC site-based team</p>	DPS Strategic Plan	Strategic Plan Program Management Portal showing percent complete of strategic goals

5: 21st century Leadership for All Schools and Districts				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Alignment with ACRE, RttT, DPS Strategic Plan, etc.	Evaluation Methods
	Leadership Team; Curriculum, Instruction and Assessment Team, Technology Leadership			
	<p>Goal: Monitor and evaluate the technology needs of all schools and establish a framework for baseline standards and equitable distribution of technology systems and services, based upon available resources (DPS SP Goal III.6).</p> <p>Responsible Party: Director of Information Technology</p>	<p>Goal: Develop sustainable budget/financing options to support technology upgrades as part of the annual and long-range budgets (DPS SP Goal IV.1.1).</p> <p>Responsible Party: Executive Leadership Team, Chief Finance Officer, IT leadership</p>	DPS Strategic Plan	Strategic Plan Program Management Portal showing percent complete of strategic goals
Prepare teachers and administrators to lead 21st century learning environments	<p>Goal: Plan and develop a semester-long Technology Teacher-Leaders Academy aligned to the NC Professional Teaching Standards (DPS SP Goal V.1).</p>	<p>Goal: Pilot a Technology Teacher-Leaders Academy aligned to the NCPTS.</p>	NCPTS, DPS Strategic Plan; ISTE NETS	Completion of TTL Academy by a minimum of 20 participants Academy results

5: 21st century Leadership for All Schools and Districts				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Alignment with ACRE, RttT, DPS Strategic Plan, etc.	Evaluation Methods
	Responsible Party: Director of Media and ET; ET Resource Specialists, PD Specialist	Responsible Party: Director of Media and ET; ET Resource Specialists, PD Specialist		Exemplars of Student Work
	Goal: Create a toolkit for principals for developing, leading and utilizing effective Media and Technology Advisory Committees. Responsible Party: Director of Media and ET; ET Resource Specialists, IT leadership	Goal: Ensure that each school has a fully functioning Media and Technology Advisory Committee to provide direction for media and technology programs and produce a technology plan driven by the instructional program and intentional technology purchasing. Responsible Party: Executive Director of CIA; Director of Media and ET; ET Resource		Production of Toolkit; Technology Plan submitted by 100% of schools

5: 21st century Leadership for All Schools and Districts				
Suggested Goals/Targets	Year 1 July 1, 2012 – June 30, 2013	Year 2 July 1, 2013 – June 30, 2014	Yearly Evaluation	
			Alignment with ACRE, RttT, DPS Strategic Plan, etc.	Evaluation Methods
		Specialists; Principals, IT leadership		
Develop strategic partnerships with community and business to promote 21st century learning.	<p>Goal: In partnership with institutes of higher education and other local education systems, DPS will design and implement a leadership and PD framework that is differentiated based upon need, aligned to the NC Executive and Teacher Evaluation Instrument, and anchored in the continuous improvement of leadership practices. (DPS SP Goal II.3).</p> <p>Responsible Party: Executive Leadership Team, Public Affairs</p>	<p>Goal: Expand partnerships including intern programs and evaluate current partnerships.</p> <p>Responsible Party: Executive Leadership Team, Public Affairs</p>	DPS Strategic Plan; NC Professional Teaching Standards	<p>DPS Strategic Plan Program Monitoring Portal showing percent complete of strategic goals</p> <p>MCREL reports</p>

**Appendix A: Policies and Procedures
Durham Public Schools Technology Plan
Policy, Procedure, & Guidelines Implementation Chart**

Policies, Procedures, & Guidelines	LEA Policy Code or Procedure	LEA Adoption, Implementation or Revision Date
All Policies, procedures and guidelines should be updated to include the fundamentals of 21st century Education and Information & Technology Skills. Policies should be translated into predominant languages of students and parents. Policies, procedures and guidelines should be displayed along with the STP and other referenced LEA/Charter plans. Make sure links have navigations that are user friendly.		
Policies Required		
A. Materials Selection Policy including internet resources (GS §115c-98(b))	3015	March/2011
B. Disposal of Equipment / Replacement of Obsolete Equipment (GS §115c-518)	6100	July/1999
C. Hardware and Software Procurement (GS § 115c-522 , 115c-522.1)	6030	July/1999
D. Copyright and Plagiarism Policy (PL §94-553 , 90 Stat. 2541),	3060	March/2011
E. Acceptable Use Policy (PL §106-554) (including existing 1:1, bring your own device)	3040, 5150	May/2011
F. Equipment/Materials Donation Policy (GS §115C-518)	6100	July/2011
G. Data Privacy Policy (20 U.S.C. § 1232g ; 34 CFR Part 99 (FERPA))	4204, 4206 4207, 4200	July/2011
H. Inventory Control Policy (GS §115c-539 , 115c-102.6A-C(5))	7310	July/2011
I. Access to Services Policy (GS §115c-106.2)	6100	July/1999
J. Online Assessment and Instruction Policy	3000, 3220	July/1999
K. Advertising and Commercialism Policy (GS §115c-98) (Procurement and gifts ethics)	3035	July/1999
L. Internet Safety and Ethical Use including Cyberbullying and Harassment (Protecting Children in the 21st century Act , CIPA , FERPA , GS 115C-407)	3040, 4411, 4301	July/2011 Dec/2009
Procedures		
A. Hardware and Software Deployment	Procedure	
B. Equipment maintenance and repairs	Procedure	
C. Outdated Resources and Equipment Replacement	Procedure	
D. Disaster Recovery of Data and Hardware	Procedure	
E. Administration of Online Courses	Procedure	
F. Administration of Online Assessment	Procedure	
G. Online Assessment and Instruction	Procedure	
Guidelines		
A. Policy Translation	Guideline	
B. Use of Digital Media and Resources	Guideline	
C. Instructional Use of Videos	3045, 3060, 3015	July/1999
D. Development of Online Resources	Guideline	