Learning Technology Plan

2013-2016

Created in Partnership With:

MNPS Students, Parents, Teachers, Administrators

Nashville Technology Council

PENCIL Foundation

Alignment Nashville

Nashville Area Chamber of Commerce

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Leadership Notes

Message from the Nashville Technology Council

Letter from the President & CEO

The Nashville Technology Council (NTC) supports the Learning Technology Plan developed for Metro Nashville Public Schools (MNPS). We are committed to the effort to equip every MNPS student with the technology knowledge and skills necessary to succeed after graduation and necessary to make our city thrive.

The NTC produces a quarterly report regarding advertised technology related positions in Tennessee. Findings since 2006 consistently indicate that between 600 and 1,400 technology related jobs are being advertised in the Nashville area at any given time. Nashville's continued prosperity requires a well-educated, tech-savvy workforce to meet this demand. Addressing workforce needs begins by graduating digital citizens, ready to meet the demands of higher education, the workplace, or both.

The NTC strongly supports creating a pipeline of interested students who are both excited about and prepared for technology-rich academies in high school. We hold that technology literacy is not a vertical path, separate from other requirements. Instead, it is an enabling force to be incorporated into all aspects of the learning process and can foster gains in student achievement across disciplines. This Plan supports that model.

The Plan commits the business community to be involved with all MNPS students, as well as provides support and best practices to the central office leadership. Partnership with the NTC in the planning and implementation phases creates a higher level of accountability for MNPS and the community. It also creates an ally to support technology advocacy in classrooms and assist with connecting our communities.

The NTC has hundreds of volunteers from education, business, and government who dedicate thousands of hours in this area. We are committed to this purpose and look forward to continuing to work with MNPS and the community to better equip our graduates for the future. If we do not succeed together in this effort, we handicap our youth and our city's future prosperity.

Regards,

Liza Lowery Massey

President & CEO

Executive Summary

Learning Technology Plan Overview

To achieve its mission of producing college and career ready graduates, Metro Nashville Public Schools (MNPS) must strive to develop digital citizens who are prepared to succeed in higher education, the workplace, and life.   Equipping each student with these skills requires integration of technology across the core curriculum, in every classroom, and at all grade levels. Occasional lessons in computer labs or vertical integration as a high school academy are not enough. Failing to equip students in this manner is detrimental to the City of Nashville's economic prosperity and global competitiveness, since the emerging workforce would not meet industry's current or future workforce needs.

Addressing this issue requires an enterprise-wide plan developed collaboratively among MNPS administration and educators, parents, students, industry, and academia. To that end, more than 60 stakeholders came together to create a Learning Technology Plan (LTP) for MNPS. Rooted in local, national, and international research that supports the use of technology as a tool for engagement and content delivery across all disciplines and grade-levels, the LTP illustrates how access to and purposeful use of technology is essential to the development of the knowledge, skills, and character necessary to learn, work, and live in an increasingly complex and information-rich society.

The LTP is organized around three overarching goals:
1. Transforming teaching and learning practices to include technology integration and to foster the development of necessary skills;
2. Redesigning learning environments to enhance the use of technology in the learning process; and
3. Sustaining community support and leadership to drive successful implementation of the LTP.

The LTP aligns community and school district resources to achieve the State's graduation benchmark of 90%, meet the educational standards and technology requirements of the Common Core State Standards (CCSS), achieve readiness for online assessments, personalize learning for all students, and advance MNPS adherence to federal standards. For the first time, a common definition is established for instructional technology practice and student use of technology as a tool for learning. These actions establish a clear connection between standards and curriculum, and the need for technology to deliver successful lessons.

The LTP includes student assessments to evaluate technology literacy at several points. Elementary school students will create a digital learning portfolio of work.   A Technology Literacy Assessment will be taken by all 8th grade students and a technology component will be required in capstone projects for high school students.

The LTP defines how school support personnel and structures will be transformed to manage the increasing demands of scaling technology use across MNPS. Examples include training all librarians in instructional design to serve as instructional resources, identifying school-based tech leads to serve as support resources, implementing high quality infrastructure that provides consistent and constant connectivity, and providing access for all teachers and students to devices, including their own, as permitted by District policy.

In accordance with the LTP, schools will create flexible learning environments that include mobile learning tools; collaborative work spaces; blended learning settings; and mobile, adjustable furniture. Construction, remodeling, updates, and large purchases will be planned in consultation with the Departments of Learning Technology and Technology & Information Services, in support of the LTP.

Implementation of the LTP is complex, requiring simultaneous actions of several MNPS departments as well as external partners over a three year period. To address this complexity, the LTP includes detailed action plans aligned with each of the three overarching goals to guide MNPS through the implementation process. In addition to complexity, adequate funding, technology access, and technical support, as well as personnel changes are risks that impact implementation of the LTP. These risks and others are specifically addressed in the LTP.

The most significant risk to transforming the learning environment and producing students with the skills necessary to thrive in the 21st century is lack of adoption and full implementation across every MNPS school. While the community can hold the district's leadership accountable for successful implementation, MNPS must take ownership of the LTP and provide day-to-day oversight across the organization. Failure to successfully implement the plan is not an option. Our students' livelihoods and the region's economic prosperity are at stake.

Part 1. The Big Picture

Introduction

A college and career ready graduate in the 21st century requires, at minimum, foundational technology skills and comfort navigating between devices and applications for different tasks. The Learning Technology Plan was created with the guiding belief that access to and purposeful use of technology is essential to the development of the knowledge, skills, and character necessary to learn, work, and live in an increasingly complex and information-rich society. This Plan is rooted in local, national, and international research to support the use of technology as a tool for engagement and content delivery across disciplines and across grade-levels.

This Learning Technology Plan is a public-private partnership that aligns local, state, federal, and international initiatives and research in education technology. Grounded in the International Society for Technology in Education (ISTE) National Education Technology Standards (NETS) for students and teachers, the Plan is structured around the three Ford PAS model objectives:
- Transforming Teaching & Learning
- Redesigning School Learning Environments
- Building Community Leadership & Support

Focusing on these goals allows high quality instruction to drive technology decisions and focus on student learning while connecting the schools to our wider Nashville community. Doing so aligns the resources of the business community and school district to achieve the State's graduation benchmark of 90%, meet the educational standards and technology requirements of the Common Core State Standards, achieve readiness for online assessments, and advance MNPS adherence to the ISTE NETS. Most importantly, by leveraging technology across grade levels and content areas, all students will benefit from personalized learning opportunities throughout their MNPS career.

Why Technology?

Tennessee is committed to implementing Common Core State Standards (CCSS) and the Partnership for the Assessment of Readiness for College & Careers (PARCC) online assessment beginning in the 2014-2015 school year. Schools require more devices as well as the integration of technology across their classrooms to ensure students are familiar with a variety of devices and applications prior to high-stakes environments.

A skilled local workforce is necessary to fill the region's large and growing technical and healthcare industries. The 2012 third quarter jobs report for Middle Tennessee published by the NTC found over 800 IT job vacancies. Moreover, nearly *every* career option and *every* higher education application requires fluency on basic technology.

This Learning Technology Plan extends beyond the provision of technology and toward the integration of technology to engage students, transform teaching and learning, improve achievement growth, and equip students with skills necessary for college and career readiness. Instructional integration of technology will also ensure comfort and fluency on a variety of technologies, critical for success on PARCC and other online assessments. It is the belief of the committee members that failing to equip students with basic technology skills is a failure on three levels:

1. It fails the students in school because they are not equipped to succeed on assessments
2. It fails students after school because they are not equipped to compete in global education and the job market
3. It fails the City of Nashville because the emerging workforce cannot fill the needs of industry

Why Learning Technology?

The IT department of any company supports the business activities of that company. The same should be true in our District. Therefore, the business of teaching and learning should drive the infrastructure and device decisions made by the District. This plan intends to drive decision making processes in that direction – tying technology integration to curriculum and instructional practice.

Strategic Alignment

The Learning Technology Plan significantly alters instruction, calls for increased collaboration at the District level, and will ultimately modify school structures. The support of stakeholders across the District and the Nashville community is essential to the sustainability of this transformation. To ensure lasting impact, the Plan is aligned with local, state, federal, and international initiatives and research in technology education.

Standards Alignment

The Learning Technology Plan is aligned with the state and international standards listed here (all listed in Appendix A):
1. International Society for Technology in Education (ISTE)
    a. National Education Technology Standards (NETS)
        i. Students
        ii. Teachers
2. Common Core State Standards (CCSS)
3. Partnership for 21st Century Skills (P21)
4. Partnership for Assessment of Readiness for College and Careers (PARCC)
5. Career and Technical Education (CTE) Standards
6. National Career Academies Coalition (NCAC)
7. American Association of School Librarians (AASL)

Metro Nashville Public Schools Strategic Goals

In 2012, five priority goals were identified by MNPS leadership. (Appendix C). These are:
1. Ensure that school, district, and community leadership is focused on high student achievement and cultivates a collaborative environment that produces excellence for our diverse student body.
2. **Graduate all students from high school with college and career readiness by ensuring academic success for every student.**
3. Create a self-renewing organization of great teachers and leaders.
4. Provide an effective data system to support instruction.
5. Turn around low-achieving schools and replicate success.

The Learning Technology Plan aligns with Goal 2 – College & Career Readiness. Critical strategies for this Goal, identified by MNPS Central Office, are strong adherence to the ISTE NETS, on which this plan is based, and implementation of CCSS, into which this plan is integrated.

Tennessee State Department of Education

In 2012, the Tennessee State Department of Education (TN DOE) adopted and began implementation of CCSS. The underlying themes of the CCSS include critical thinking, communication, and creativity – shared by the ISTE standards on which this plan is founded.

Commissioner Huffman challenged Tennessee to be the fastest improving state in terms of student achievement. He has also challenged all districts to reach a 90% graduation rate. These goals are addressed and supported through increased engagement and relevance, which impact achievement and attendance. This plan impacts engagement and relevance by increasing personalized learning, promoting authentic learning environments and projects, and increasing business and community engagement across K-12.

Academies of Nashville

Implemented in 2010, the Academies of Nashville plan states that, by way of its implementation, "All students will benefit from personalized learning environments, rigorous curricula and career-driven programs in their schools that provide a relevant context for learning in order to prepare them for high-skill, high-wage workplace opportunities here in the Nashville area". The Learning Technology Plan focuses on the integration of technology in the classroom to support the expansion of these same goals throughout K-12.

Workforce Alignment

The MNPS Learning Technology Plan is aligned with the needs and resources of the Nashville business community. It is also grounded in national and international workforce research to ensure that students are competitive not only locally, but globally.

A July 2012 meeting revealed the following vision for an MNPS graduate. This Nashville profile is aligned with international research (Tony Wagner) and international standards (ISTE) below:

P21 Skills	MNPS / NTC Priorities	ISTE
Critical Thinking & Problem Solving	**Problem Solving** **Critical Thinking**	Critical Thinking, Problem Solving, and Decision Making
Social & Cross-Cultural Skills Global Awareness Leadership & Responsibility Productivity & Accountability	**Collaboration & Teamwork** **Social Skills** **Accountability** **Integrity/Honesty**	Digital Citizenship
Flexibility & Adaptability	**Adaptable**	
Creativity & Innovation Initiative & Self-Direction	**Confidence/Initiative**	Creativity & Innovation
Communication & Collaboration	**Social Skills** **Communicate Effectively** **Verbal & Written Communication**	Communication & Collaboration
Information Literacy Media Literacy Information, Communications, & Technology (ICT) Literacy	**Value Information** **Systems Thinking** **Analyze & Process Information** **Fundamental Technology Skills/Knowledge** **Function in Blended Environment**	Research & Information Fluency Technology Operations & Concepts

Tangible Benefits

CCSS and PARCC Readiness

Teachers and principals will receive basic technology training to prepare for the administration of the PARCC assessment in the 2014-2015 school year. Pilot assessment sites in 2013 highlighted the need for basic technology operation training and a deeper understanding of the PARCC assessment specifically.

Transforming Teaching & Learning

For the first time, common definition is established for instructional technology practice and the expectations for student use of technology as a tool for learning. These expectations are found in the MNPS Technology Literacy Standards and the instructional technology matrix.

For the first time, several sets of standards have been threaded with the CCSS with a focus on instructional technology. This establishes the connection between standards and curriculum, and the need for technology to deliver successful lessons on that content. This document and additional instructional technology resources are housed and connected through SchoolNet.

Student assessments will include a variety of mechanisms to evaluate technology literacy:
- Elementary School: digital learning portfolio of work, including technology components (begin 2014-2015)
- Middle School: Technology Literacy Assessment taken by all 8th grade students (begin 2013-2014)
- High: Technology component included in Capstone project requirements (begin 2014-2015)

This plan supports district, school and teacher efforts to develop differentiated and personalized learning environments for students. Through purposeful technology use in the classroom, teachers can track and target instruction, allowing them to meet the needs of each student more quickly and effectively.

Redesigning School Learning Environments

School support personnel and structures will be transformed to manage the increasing demands of scaling technology use across the District. This includes:
- All librarians will be trained in instructional design to serve as an instructional resource for their building and colleagues.
- All schools will identify a school-based tech lead to serve as a support resource for their building.
- Instructional designers will target priority schools each school year as well as be available to support teachers and principals across the District.
- High quality infrastructure will permit consistent and constant connectivity
- All teachers and students will have access to devices, including their own devices, as permitted by District policy

Schools will create flexible learning environments during any future construction or rehabilitation projects. This includes mobile, adjustable furniture, collaborative work environments, blended technology learning environments, and mobile technology learning tools. Construction, remodeling, updates, and large purchases will be planned in consultation with the Learning Technology and Technology & Information Services Departments.

Building & Sustaining Community Leadership & Support

The inclusion of business and community partners in the creation of this plan created an invested and connected group of leaders to champion the Learning Technology Plan beyond the boundaries of MNPS. This group will be included in overseeing the plan's implementation.

Dependencies, Risks, & Potential Solutions

Accountability

Risk: With so many important components to the work of MNPS, without strong accountability this initiative has the potential to be lost among the sea of work. As a new initiative, there is no structure in place historically to provide regular accountability and collaboration between the tech community and MNPS.

Solution: Jay Steele, Chief Academic Officer as of the writing of this document, will be ultimately accountable for the success of this plan. In turn, Jay will hold his Leadership and Learning team (including Learning Technology and Curriculum & Instruction) accountable for their portions of this work. A cross-departmental team led by Mr. Steele will meet with the Executive Board of the Nashville Technology Council on a bi-annual basis to assess progress on the plan. A full schedule of checkpoints to which the leadership of both MNPS and the community has committed is found in Appendix F.

Principal Buy-In

Risk: The key to change in any school is the support of the principal. Each principal has a philosophy on the best way to run his or her building. Without a true prioritization of human and financial resources to support the goals of the Learning Technology Plan, change across classrooms will be slow and difficult.

Solution: Requiring instructional technology in every principal's annual School Improvement Plan (SIP) introduces a level of accountability tracked by the Chief Academic Officer and his leadership team. Further, the 2014 implementation of the PARCC test for Common Core requires technology competency of all students. Support is being garnered through Common Core training as well as trainings on the Learning Technology Plan.

Funding

Risk: Historically, funding overall, and specifically for infrastructure and technology, has been unpredictable. Despite volatile funding, the Technology & Information Services Department has made significant strides equipping schools. However, the pace of change and growth of demand continues to increase. District plans for LAN updates and wireless updates and installations began in earnest in January 2013. Predictable, consistent funding ensures complete and uninterrupted improvements as well as efficient use of the allocated funds.

Solution: Consistent dialogue around instructional technology has been presented during all School Board meetings beginning Fall 2012. Meetings with the CEO of the Nashville Chamber of Commerce and the Report Card Committee were held Spring 2013. The Chief Operating Officer, Chief Academic Officer, and Director of Schools have worked to improve communication and relationships with members of City Council to inform and prepare the Council on MNPS strategies, including the Learning Technology Plan and the infrastructure spending required.

Student Devices

Risk: Student devices are not equitably distributed across the District, nor are they prevalent in students' homes. Smartphones are not sufficient for rigorous academic research or writing reflective of a student's true abilities, nor is it authentic to the assessment environments students will encounter. Further, managing a classroom of students using smartphones, tablets, and laptops makes teaching and technical support very difficult.

Solution: Therefore, MNPS must establish a multi-pronged approach to student devices that includes a bring your own device (BYOD) policy, an effort to provide a high quality cache of devices for student use in schools, and a policy permitting students to borrow devices for use off-campus. A structured BYOD policy and District-purchased devices will reduces the complexity and unpredictability of device types in the building, but this complexity will not fully disappear with a BYOD policy. Precedent for a public-private partnership has been set by the United Kingdom and is being considered by MNPS and NTC leadership. Additionally, MNPS and ConnectedTN are considering the establishment of a fund and program to support devices for students.

Technical Support

Risk: The TN Department of Education recommends a support technician to device ratio of 1:65. The current ratio exceeds 1:1800. Current Technology Support Specialist (TSS) staff is overstretched and this plan will increase device counts significantly. Solutions to staffing or outsourcing must be identified as device counts increase.

Solution: An initial measure is to train a "tech lead" per school on the hardware, software and applications available in the District, troubleshooting procedures, and equip them with administrative access to address targeted issues at school. Tech leads will be eligible to receive recognition and certification through an ISTE supported program.

Ultimately, a greater number of Technology Support Specialists (TSS) will need to be hired and retained throughout the district. Some schools have chosen to use funding, such as Title 1 or parent organization funds, to hire a technology specialist in their building. A successful school with devices for every student will need one dedicated TSS for its building.

Anytime Access for All

Anytime Access for All aspires to student access to and use of technology in and out of the school building. The effort has three components. This plan fits directly into this effort.
1.   Connected Communities
2.   Student Devices (in and out of school)
3.   Digital Content Accessible Anywhere

The learning technology plan impacts the student device and digital content accessibility at school.

Risk: With only 40% of MNPS households reporting home internet access significant efforts have been made to find ways to connect our students' communities. This will require strong and ongoing partnership among internet providers, community organizations, MNPS, and local government.

The progress and impact of the Learning Technology Plan is strongest when students can access devices and the internet outside of the school building. Without access at home, students will be unable to complete work assigned using technology – an important piece to this Plan. These efforts must move in tandem.

Solution: To address this, partnership with ConnectedTN and Connected Nation has advanced and a summit will be held in 2013 to convene providers, government leaders, the business community, and community leaders to map a strategy for connecting Nashville's communities.

Additionally, MNPS and the Learning Technology Department are committed to providing instructional design supports to the pilot cluster when Anytime Access for All reaches that stage. This will ensure that the school-based supports are in place when the community piece secures funding and begins implementation.

Data Warehouse

Risk: To create personalized learning environments teachers must have access to and use real-time student data. MNPS has made significant strides with the creation of the Data Warehouse to curate all of this information for teachers and creating the position of Data Coach to train teachers and principals on accessing and analyzing that data.

Solution: To address this, data coaches are increasing the reach of training services to teachers and principals. Data walls are being created online and in schools. Communication of these services and priorities is done via posters in schools, online communication, and professional learning opportunities. Technical teams are charged with maintenance and enhancements to the Data Warehouse to capitalize on increased technology in the classroom for student achievement.

Leadership Transition

Risk: Dr. Jesse Register will step down as Director of Schools in July 2015. The importance of instructional technology and the transformation of teaching and learning it will create must be embedded within the District to avoid significant change at the time of this leadership transfer.

Solution: The transition risk is mitigated by the integration of the Learning Technology Plan with the CCSS implementation plan and the requirements for online assessments beginning 2014-2015. The requirements of CCSS, PARCC, and other online assessments make instructional technology vital and cross-departmental.

Communication

Risk: The transformation of teaching and learning through K-12 instructional technology must be communicated consistently and continuously from all levels of leadership to teachers, students, parents, and the community. The cultural shift will require the investment of time and resources to reach acceptance of instructional technology as an important tool to improve student achievement, engagement, and college and career readiness. This communication must occur internally, through many channels, as well as externally to families and the wider Nashville community. This will begin with the inclusion of technology in all appropriate CCSS and PBL communications from all departments to teachers and principals.

Solution: All communications surrounding CCSS implementation and the Academies of Nashville will, as appropriate, reference the importance of instructional technology to the success of those initiatives. The Board of Education will be engaged during a working session on the importance of instructional technology to CCSS, the Academies of Nashville, and achieving the mission of MNPS. The Nashville Technology Council and other community partners will reference the importance of instructional technology in all appropriate public materials and statements.

Moreover, defining the capstone and digital learning portfolios (implemented 2014-2015) will be conducted in collaboration with teachers, to ensure continued communication and consultation with teacher leaders in our schools.

TN State Department of Education

Risk: The TN DOE does not currently house an instructional technology department. Without a department supporting this work inside the TN DOE, advocacy for funding and technology standards must come from the districts.

Solution: The Director of Schools will initiate conversation with the TN DOE and other districts to support statewide technology education standards in 2013. Members of MNPS leadership sit on TN DOE committees to inform and lead CCSS implementation. Finally, the Executive Director of Learning Technology sits on a Governor's Board for education and increased funding for education technology by $30 million in 2012, and will continue to advocate for funding.

Part 2. Implementation

Overview

The implementation process is complex and requires the simultaneous actions of several MNPS departments as well as external partners. *0 = June 2013*
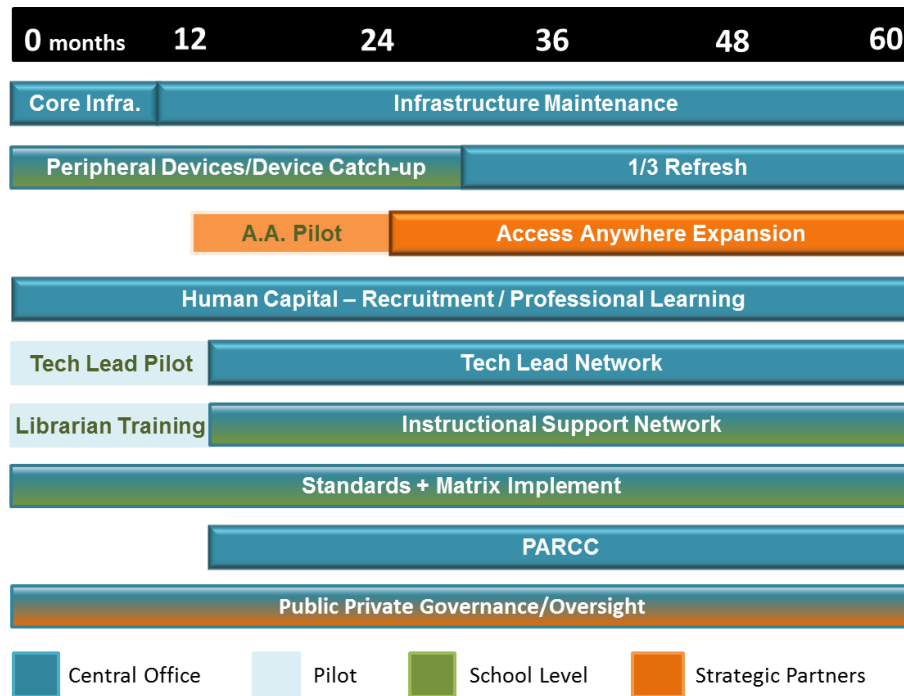
Implementation Schedule 2012-2016

Implementation includes the following for schools:
1. Instructional designer assignment / Blended classroom support
2. School Improvement Plan (SIP) support
    a. Planning Facilitators
    b. Learning Technology Department
    c. Lead Principal
3. Professional Development (Librarians, Teachers, Coaches, Principals)

Blended Learning Implementation:

Schools	2012-2013	2013-2014	2014-2015	2015-2016
Secondary (9-12)	Plan	Pilot	EOC – Build		Reflect, Maintain
Secondary (5-8)		Plan			
Primary (K-4)	Pilot				

In 2012, all Advanced Placement (AP) and International Baccalaureate (IB) courses moved to a blended learning model. Additionally, Freshman Seminar and Cambridge AICE are planned for their transition to blended beginning Fall 2013 and completed Spring 2014. Finally, Hunters Lane requested a school-wide transition to blended learning that will take place during the 2013-2014 year. This project was planned prior to the writing of this document. In addition to these successful efforts at the secondary level, blended learning was piloted in elementary in 2012.

Learning Technology - Professional Learning Calendar

			Professional Learning – Calendar															
Type	Leader	Who is trained	S13	SM13	F13	S14	SM14	F14	S15	SM15	F15	S16	SM16	F16	S17	SM17	F17	S18
Librarian ID - Trainers	KR (RF)	Librarians - Train the Trainers																
Librarian ID	KR (RF)	Librarians			*Maintain*													
Clerk ID	KR (RF)	Clerks			*Maintain*													
School-Level ID	KR (DR)	Teachers	*See Implementation Calendar*															
SIP Facilitator ID	KR (DR)	SIP Facilitators																
Admin	JW/VP	Administrative Staff																
Tech Lead - ID/TSS	JW/KR	Tech Lead																
SchoolNet	KM	Teachers			*Online*	*Maintain*												
Coaches - ID	KR	Coaches																
PARCC Readiness	KR	Tech Leads				*Maintain - include in monthly webinars*												
PARCC Readiness	KR	Librarians				*Maintain*												
Hiring Tech Literate Teach	KC	Principals		*Guidelines maintained/updated annually*														
Blended - Builds	KR (TN)	Teacher Leaders	*F.Sem*		*9th*	*Sec. 9-12*		*Sec. 8 5-*	*K-4*									
CCSS Summer Training	KH/DM	Teachers/Princi pals/APs																

Note on Professional Learning: The State of Tennessee does not require professional learning hours or recertification for its teachers. Therefore there is a limited ability for MNPS to require attendance at professional learning. The expense for training noted in the figure above reflects stipend spending for teachers attending the session(s) only. Advocacy for a change in licensure is a future conversation requiring the Director of Schools from many districts, legislators, and others and falls outside the scope of this Plan. *Therefore, Professional Learning opportunities are offered, incentivized when possible with stipends, and emphasized by MNPS leadership but not required at this time.*

Strategic Goals

The three strategic objectives previously outlined are listed here with their key components. These objectives and components reflect the structure of the action plan in Part 3 of this document.

Transforming Teaching & Learning

At the heart of transforming teaching and learning are teachers and an effective, supportive ecosystem of technical and instructional professional learning and coaching. This transformation is rooted in the transition to Common Core State Standards and will be learner-centered.

Curriculum: Use of technology as a tool for learning will be integrated across a rigorous and relevant curriculum that prepares students to be college and career ready.

Professional Learning: All teachers, principals, and administrators will have access to professional learning opportunities that model technology integration and prepare participants for leveraging technology as a tool for learning and engagement in their classrooms, schools, and offices.

Instruction: Instructional technology will be used as a tool for engagement and personalized learning.

Human Capital: The District will recruit and hire high quality teachers with basic technology competency and a willingness to use technology to engage students and personalize learning.

Student Assessment: Assessment strategies will be incorporated to ensure that students are technology literate and college and career ready.

MNPS Ownership & Clear Understanding of Roles: For instructional technology implementation to be successful, all parties in MNPS will need to have a clear understanding of their roles and responsibilities, action steps, timelines, and outcomes.

Redesigning School Learning Environments

In redesigned schools, students will participate in a combination of learning environments: "brick-and-mortar" classrooms, blended classrooms, and virtual classrooms. The District will be 100% blended and all high school students will complete at least one virtual course. Acknowledging these rapid changes, physical spaces must evolve within buildings to permit this flexibility and personalization.

Technology & Infrastructure: Technology, infrastructure, and data training will be available and in place to support teacher and student success in these varied environments.

School-Based Support Structures: Schools will be supported by school-based personnel trained in instructional technology and technical troubleshooting by MNPS experts.

Facilities: Future construction and updating of learning environments will promote student collaboration, project based learning, and personalized learning via flexible, mobile furniture and fixtures.

Building and Sustaining Community Leadership & Support

Building and sustaining community leadership and support will establish mutual accountability for successful implementation. Business and community leaders championing the first phase of the Learning Technology Plan will be encouraged to take leadership roles for Phase 2.

Business and Community Organization Engagement & Support: Collaborative oversight between MNPS, Business, and Community leadership will hold the District accountable to this plan and provide assistance and support as needed for successful implementation

Marketing and Communication: Successful marketing and communication strategies will promote commitment to the successful integration of technology in K-12 classrooms from teachers, principals, administrators, parents, students, and the community.

Part 3. Action Plan

Learning Technology Plan – Strategic Outcomes

Goal 1. Transforming Teaching & Learning

Goal 2. Redesigning School Learning Environments

Goal 3. Building and Sustaining Community Leadership & Support

Acronyms:

AASL	American Association of School Librarians	**LMS**	Learning Management System
BYOD	Bring Your Own Device	**NTC**	Nashville Technology Council
CCSS	Common Core State Standards	**PARCC**	Partnership for the Assessment of Readiness for College & Careers
CTE	Career & Technical Education	**PBL**	Problem Based Learning
CTM	Cluster Technology Manager	**PLC**	Professional Learning Community
EOC	End of Course	**RTT**	Race to the Top (federal grant funding)
ERO	Electronic Registrar Online	**SIP**	School Improvement Plan
ISTE	International Society for Technology in Education	**T3**	Turning the Tide of Technology Workforce (Committee)

List of Title Acronyms

ADC	Assistant to the Director for Communications	**DSC**	Director of School Counseling
CAO	Chief Academic Officer	**DTS**	Director of Talent Strategy
COO	Chief Operating Officer	**EDCI**	Executive Director of Curriculum and Instruction
DAON	Director of the Academies of Nashville	**EDLT**	Executive Director of Learning Technology
DCS	Director of Central Services	**EDTIS**	Executive Director of Technology & Information Services
DCTE	Director of Career & Technical Education	**SN**	Instructional Management Administrator for SchoolNet

Timeline

Year 1	2013-2014
Year 2	2014-2015
Year 3	2015-2016

Key - Resources

Blue	Local Budget Funding
Red	Federal Funding
Green	Businesses & Community Organizations
Black	Other – Identified in Table

Goal 1: Transforming Teaching & Learning

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
A. Curriculum: Use of technology as a tool for learning will be integrated across a rigorous and relevant curriculum that prepares students to be college and career ready.					
1-A.1: MNPS Technology Literacy Standards adopted K-12	- MNPS Technology Literacy Standards included in District policies - MNPS Technology Literacy Standards are public document	**Year 1:** Post standards on Learning Technology and MNPS websites **Year 1:** Communicate standards to teachers and parents	EDLT, ADC, EDCI	Learning Technology Technical Advisor; Lead Librarian	Standards posted on MNPS & Learning Technology Websites
1-A.2: All CCSS resources for teachers and administrators include instructional technology materials	- Linked SchoolNet resources include: 1) Threaded CCSS, ISTE, AASL, CTE standards 2) PD360 3) Unpacked CCSS	**Year 1:** SchoolNet resources mapped and linked, including annual review of content **Year 3:** Begin annual creation of content from MNPS standout teachers	EDCI, SNPM, EDTIS, EDLT, Coaches & Trainers	Instructional Coaches; Instructional Designers; Lead Librarian	Percentage of unpacked CCSS documents that include instructional technology resources
	- SchoolNet training available on-demand (Aug 2013)	**Year 1:** SchoolNet on-demand training materials available (Aug 2013) **Years 1-2:** All trainers and coaches trained on instructional design no less than every two years		Instructional Management Administrator for SchoolNet; Lead Instructional Designer	Number of unique views on webinar training for SchoolNet; Percentage of coaches and trainers completing instructional design training (ERO)
	- Annual review of SchoolNet resources for relevant content	**Year 3:** Begin annual review and update of all hardware and software resources in the District and link content to instructional materials		Instructional Coaches; Instructional Designers; Lead Librarian	
1-A.3: Freshman Seminar curriculum includes digital literacy modules	- All freshmen students receive digital literacy education modules as a component of the Freshman Seminar curriculum	**Year 1:** Digital literacy is integrated to Freshman Seminar curriculum **Year 1:** EverFi (private education tech company) trains Freshman Seminar teachers, and other teachers/principals	EDLT, EDCI	High School Instructional Designer	100% of 56 Freshman Seminar teachers complete EverFi training

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
		upon request, on digital literacy modules			
B. *Professional Learning: All teachers, principals, and administrators will have access to professional learning opportunities that model technology integration and prepare participants for leveraging technology as a tool for learning and engagement in their classrooms, schools, and offices.*					
1-B.1: Professional learning opportunities for teachers and administrators model and employ instructional technology techniques	- Professional learning sessions model learner-centered technology use - Attendees participate in professional learning through technology	**Year 1:** The Learning Technology Department communicates its services and resources to all coaches and trainers **Year 2:** Professional learning modules built with instructional designers; beginning with CCSS Summer 2013 sessions **Annual Activities:** 1) Participant use of technology during professional learning is a regular and intentional component of MNPS trainings	EDCI, EDLT, Coaches & Trainers	Instructional Coaches; Instructional Designers RTT (CCSS Training)	Percentage of sessions created with instructional designers
1-B.2: Librarians serve as school-based instructional designers	- Librarians are trained in instructional design 1) Learning Technology Department identifies high quality librarians and adds them to a pool of librarians coordinated with the Human Capital Department	**Year 1:** All librarians receive training in basic instructional design (Summer 2013) **Annual Activities:** 1) Annual schedule of instructional design training for librarians 2) Evaluate Librarians with TEAM support staff rubric	EDLT, Librarians, DTS	Instructional Designers; Lead Librarian	Percentage of librarians complete instructional design training (ERO)
1-B.3: District provides training on instructional design, blended learning, and technology integration to schools	- Priority schools identified annually by MNPS leadership and provided weekly instructional design support from the Learning Technology Department	**Annual Activities:** 1) Priority schools identified and given weekly instructional design support	EDLT, Librarians, Teachers	Lead Librarian; Lead Instructional Designer	Number of schools identified annually; percentage of teachers supported by instructional designers at priority schools

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
	- Principals, teachers and other MNPS staff receive regular communications about opportunities for professional learning on technology, both use and integration	**Year 1:** Learning Technology Department site and ERO promote both technical and instructional technology professional learning opportunities **Year 2:** Begin bi-annual updates of Learning Technology Department site and ERO			Number of credits offered on instructional technology (ERO report)
1-B.4: District provides training on technical requirements of online student assessments	- Principals and tech leads are trained to manage online assessment environments	**Year 1:** Develop training curriculum and calendar **Year 1:** Train tech leads and principal **Annual Activities:** 1) Brief tech leads and principals on updates and changes to assessment requirements and procedures as needed	EDLT	Instructional Designers	Percentage of schools with one or more persons complete PARCC Readiness (ERO); Participation rate of tech leads in monthly trainings
1-B.5: Create PLCs to distribute technology information and training on specific devices and applications	- PLCs established with participation from every school: 1) Tech lead 2) Blended learning 3) Librarian - Training program developed and scheduled for every each PLC - PLC members are trained on technology information, procedures, and specific devices and applications - Progress is monitored quarterly by Learning Technology Department	**Year 1:** Train PLC participants **Year 1:** Secure CUE training (ed tech company) to grant Rockstar Certification to participating members of PLCs **Year 1:** Reflect on achievements and areas of improvement from PLCs, Learning Technology, and CTMs **Annual Activities:** 1) CUE Rockstar training 2) Train PLC cohort on technology information and specific devices and applications, including Microsoft 365 3) Monitor progress quarterly	EDLT, EDTIS, Teachers	Lead Librarian	Number of PLC meetings held; rate of participation; number of CUE certified staff
1-B.6: Facilitate Engage	- EngageMe training modules	**Annual Activities:**	EDLT	Instructional	Percentage of K-8

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
Me training to all K-8 teachers to support CCSS engagement	designed and scheduled for K-8 CCSS training	1) Implement Engage Me training to K-8 teachers		Designers	teachers completing Engage Me (ERO)
1-B.7: Maintain Teacher Resource Center	- Teacher Resource Center is available to teachers at regular hours and staffed with customer service personnel - Teacher Resource Center is a professional library for MNPS teachers	**Annual Activities:** 1) Teacher Resource Center is open and available for teacher use during regular hours 2) Teacher Resource Center is staffed with Knowledgeable customer service personnel	EDLT	Local Budget (Learning Technology)	
C. **Instruction: Instructional technology will be used as a tool for engagement and personalized learning.**					
1-C.1: All schools have a blended learning plan and begin implementation	- Targeted classes in all schools will follow a blended model, defined as: 1) High: 60-79% online content 2) Middle: 50-60% online content 3) Elementary: up to 25% online content - LMS reflects that all targeted courses meet blended percentage requirements	**Year 1:** All Freshman Seminar courses blended **Year 2:** All target 9-12 and target 5-8 courses blended **Year 2-3:** Target elementary courses blended **Year 3-5:** All targeted K-12 courses blended	EDLT, Principals, Teachers	Instructional Designers	Percentage of teachers in targeted courses with required level of online content; % of teachers in targeted courses logging in to LMS daily
1-C.2: All core virtual content is available and accessible for Virtual High School students	- 100% of all Virtual high school courses have course content	**Annual Activities:** 1) All Virtual High School courses updated with current content 2) Support the Virtual High School learning management system	EDLT	Lead Instructional Designer	Percentage of Virtual High School courses with online content
D. **Human Capital: The District will recruit and hire high quality teachers with basic technology competency and a willingness to use technology to engage students and personalize learning.**					
1-D.1: Principals select high quality teachers that integrate technology into their lessons	- Human Capital hiring guidelines created with instructional designers to include instructional technology as a component	**Year 1:** All principals receive guidelines on identifying high quality teachers that integrate technology during hiring interviews **Annual Activities:**	EDLT, DTS, Principals		

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
	- of high quality teachers - Human Capital distributes hiring guidelines to all principals during Round 2 hiring 2013	1) Review and update training materials and rubric			
1-D.2: MNPS recruits, hires, and develops a technology literate teacher cadre	- All teacher candidates complete technology literacy assessment	**Year 3:** All teacher candidates required to complete technology literacy assessment	EDLT, DTS, Teachers, Coaches & Trainers		Percent teacher candidates completing technology literacy assessment
	- Require current teachers to complete technology-based professional learning hours/credits	**Year 1:** Establish number of professional learning hours MNPS staff will need to complete beginning Year 2 (2014-2015) **Year 2:** Create single professional learning calendar **Year 3:** All current teachers required to complete technology literacy assessment **Year 3:** All teachers required to complete technology-based professional learning hours			Percent current teachers completing technology literacy assessment
E. Student Assessment: Assessment strategies will be incorporated to ensure that students are technology literate and college and career ready.					
1-E.1: Technology literacy assessments are administered in each tier	- Plan, define, and implement Elementary Digital Learning Portfolios digital learning portfolio (with technology components)	**Year 1:** Create cloud repository for digital learning portfolios **Year 1:** K-4 digital learning portfolio guidelines developed **Year 2:** All elementary schools begin implementing and compiling digital learning portfolios of work	EDLT, EDCI, Teachers	Local Budget (Learning Technology)	Percent students with a digital learning portfolio upon graduation of 4th grade (elementary)
	- Require 8th grade Technology Literacy Assessment	**Year 1:** All 8th grade students complete Technology Literacy assessment **Year 1:** Technology Literacy Assessment scores stored in Data Warehouse			Percent students completing 8th grade technology literacy assessment; Percent students scoring 80% or above on technology literacy assessment

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
	- Plan, define, and implement Capstone experience guidelines including technology component	**Year 1:** Capstone guidelines developed **Year 2:** All high schools require technology component of each capstone project			Percent of seniors completing capstone experience
1-E.2: The District implements formative and summative online student assessments	- Formative and summative online assessments reflect all required students' participation in assessments each year	**Year 1:** Formative and summative online assessment pilots are completed in identified schools **Annual Activities:** 1) Implement District-wide formative and summative online assessments 2) Online assessment process is evaluated annually and updated accordingly	CAO, COO	DEA; DIBLES; SchoolNet	Number of total online assessments (by tier); number of failed online assessment incidents
1-E.3: Graduates complete at least one online course	- MNPS graduates complete at least one online course, defined as one of the following: 1) Online Retake Course (A+) 2) Virtual School 3) an online course for college credit	**Year 1:** All guidance counselors aware of the requirement that students complete at least one online course and of the options available to students **Year 2:** All students, beginning with the class of 2017, must complete at least one online course	EDLT, EDCI, DSC	Virtual High School (Local Budget – Learning Technology); RTT; School Counselors	Percentage of graduates completing at least one online course
1-E.4: All MNPS students will have the opportunity to apply for professional certifications recognized by their pathway industry	- Career & Technical Coordinators work with industry leaders to create and maintain a concise list of recognized certifications supported by MNPS - Students have the opportunity to sit for appropriate certifications	**Year 1:** Identify industry-recognized certifications relevant to current Academy pathways **Year 1:** Academy students may elect to pursue professional certification **Year 1:** Counselors receive MNPS list of support certifications and assessment information for each **Year 3:** Director of Academies and a leadership team assess possibility of securing MNPS or external funds to provide financial assistance to students	DCTE, DAON, DSC, CAO	Student personal expense (certification exams) CTE coordinators; Learning Technology Program Support Manager	Percentage of students obtaining professional certification (reported by type)

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
		seeking professional certification **Annual Activities:** 1) Review list of professional certifications with industry leaders 2) District supports professional certification assessment environments where necessary			
F. *MNPS Ownership & Clear Understanding of Roles: For instructional technology implementation to be successful, all parties in MNPS will need to have clear understanding of their roles and responsibilities, action steps, timelines, and outcomes.*					
1-F.1: The Director of Schools ensures the success of the Learning Technology Plan	- District progress toward the academic and instructional goals outlined in the Learning Technology Plan narrative are documented - Each MNPS department is equipped with the finances, technology, and human resources necessary to implement the Learning Technology Plan - Initiates and sustains conversation at the TN Department of Education around technology needs across the state	**Year 1:** The MNPS Strategic Plan and the Learning Technology Plan are aligned **Annual Activities:** 1) Supports an appropriate budget to ensure adequate staffing and infrastructure maintenance to implement the Learning Technology Plan across departments 2) Advocates at the local and state levels for technology as a tool for learning and key component of both college & career readiness and online assessment success 3) Advocate for business and community partnerships to support technology needs	Director of Schools		
1-F.2: The Chief Operating Officer supports and evaluates Executive Director of Technology & Information Services on Learning Technology Plan implementation	- Documented District progress toward the infrastructure and technical support needed to reach the academic and instructional goals outlined in the Learning Technology Plan - Advocates within the District	**Annual Activities:** 1) Advocate and support the human and financial needs of the District for technology with the Director of Schools, Board of Education, City Council, and other area leaders 2) Increase collaboration between Learning Technology and	COO		

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
	leadership for the resources and support principals and teachers need to be successful - Presents the financial and human needs in the District for technology support and the implementation of online assessment to the School Board and Education Committee - Support the implementation of infrastructure updates required for online assessments and the implementation of the Learning Technology Plan - Participate in annual report to the NTC and community leaders on the implementation of the Learning Technology Plan	Technology & Information Services Departments 3) Review annual infrastructure and technology plans 4) Advocate and cultivate business and community partnerships and collaboration 5) Evaluate Executive Director for Technology & Information Services 6) Annual report to the Nashvil\le Technology Council and community leaders			
1-F.3: The Chief Academic Officer supports the Learning Technology Plan and evaluates the Executive Director of Learning Technology on its implementation	- Documented District progress toward the academic and instructional goals outlined in the Learning Technology Plan - Advocates within the District leadership for the resources and support principals and teachers need to be successful - Presents the financial and human needs in the District for instructional technology support and the	**Annual Activities:** 1) Increase collaboration between Learning Technology and Technology & Information Services Departments 2) Review annual instructional design and professional learning plans 3) Advocate and cultivate business and community partnerships and collaboration 4) Evaluate Executive Director of Learning Technology 5) Evaluate lead principals 6) Annual report to the Nashville	CAO		

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
	implementation of online assessments to the School Board and Education Committee - Participate in annual report to the NTC and community leaders on the implementation of the Learning Technology Plan	Technology Council and community leaders			
1-F.4: The Executive Director of Technology & Information Services supports the instructional and learning needs of teachers and students	- Increase collaboration between the Learning Technology & Technology & Information Services Departments - All school technology purchase requests follow review process (Appendix H) - All buildings equipped with sufficient infrastructure for online assessments and the implementation of the Learning Technology Plan - Train identified Tech Leads on District policies and technology support processes - All schools have reliable and effective technical support personnel - Participate in annual report to the NTC and community leaders on the implementation of the Learning Technology Plan	**Year 1:** 100% of schools achieve enterprise level wireless and updated LAN where necessary **Year 1:** PARCC Readiness Professional Learning designed and implemented **Annual Activities:** 1) Increase collaboration between Learning Technology and Technology & Information Services Departments 2) Develop annual infrastructure and technology plans 3) Annual review of technical support effectiveness, updating accordingly 4) Annual report to the Nashville Technology Council and community leaders	EDTIS		Percent of high schools with 1G internet; percent of schools with enterprise level wireless; student to device ratio; percent of devices aged 3 years or younger; average turnaround time for HelpStar tickets
1-F.5: Executive Director of Learning Technology	- Increase collaboration between the Learning	**Year 1:** PARCC Readiness Professional Learning designed and implemented	EDLT		Percent of librarians trained on instructional

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
ensures instructional design support is provided to all teachers, principals, coaches, and trainers	Technology & Technology & Information Services Departments - All school technology purchase requests follow review process (Appendix H) - Priority schools identified annually and receive weekly instructional design support - All librarians receive instructional design training - Technology Literacy Assessments implemented each year: 1) Elementary: Digital learning portfolio 2) 8th grade Technology Literacy Assessment 3) Capstone with technology component - Participate in annual report to the NTC and community leaders on the implementation of the Learning Technology Plan	**Annual Activities:** 1) Increase collaboration between Learning Technology & Technology & Information Services Departments 2) Develop annual instructional design and professional learning plans for teachers and principals 3) Evaluate Lead Instructional Designer , Instructional Design team, and Lead Librarian 4) Annual report to the Nashville Technology Council and community leaders			technology (ERO); Number of trainings held for PLCs; Number of teachers implementing blended learning model; number of teachers employing a blended learning model
1-F.6: Executive Directors for Curriculum and Instruction thread 21st century skills and technology literacy competencies are embedded throughout curriculum and trainings	- All professional learning sessions employ technology, modeling effective use - Curriculum resources housed on SchoolNet and connected to instructional resources such as standards, exemplar lessons, and best practice videos approved by Learning Technology Department	**Annual Activities:** 1) Increase collaboration with Learning Technology Department 2) Develop annual professional learning plans for teachers and principals that include instructional technology	EDCI, EDLT		Percent of coaches completing instructional design training (ERO);
1-F.7: SIP Facilitators	- All annual SIPs include	**Year 1:** SIP Facilitators receive training	SIP Facilitators		Percent of SIPs with

Strategies	Target Outcomes	Yearly Activities	Lead Person(s) / Team	Resources	Metric
ensure all annual SIPs include instructional technology planning	instructional technology plans	and guidelines on instructional technology from Learning Technology Department **Year 1:** All SIPs include an instructional technology plan component			instructional technology plan, reviewed by Learning Technology Department
1-F.8: Lead principals ensure principals include instructional technology in school SIPs and strategically hire for technology support	- All SIPs include planning for the integration of technology - Principals use technology hiring guidelines and Lead Principal support when hiring new staff - Lead Principals are a conduit between principals and District leadership	**Year 1:** All lead principals complete training on human capital guidelines for hiring teachers with basic technology competency **Annual Activities:** 1) Lead principals support SIP process with their principal network 2) Lead principals ensure the inclusion of instructional technology planning in all SIPs 3) Lead principals support principals in strategically hiring technology competent teachers	Lead Principals		Percent of SIPs with instructional technology plan, reviewed by Learning Technology Department; Percent of teachers scoring 80% or above on technology literacy assessment (Year 3)
1-F.9: Principals hire teachers and administrators with technology literacy and include instructional technology planning in annual SIPs	- Principals use Human Capital's guidelines for hiring high quality teachers that integrate technology in their classrooms - Classroom observations include the use of the instructional technology matrix - One tech lead per school is identified and participating in the tech lead PLC - Learning Technology Department establishes a pool of approved librarian candidates from which principals hire new staff	**Years 1-2:** All principals complete training on human capital guidelines for hiring teachers with basic technology competency **Year 2:** Principals include instructional technology review in classroom observations	Principals, EDLT, DTS		Percent of teachers scoring 80% or above on technology literacy assessment (Year 3)

Goal 2: Redesigning School Learning Environments

Strategies	Key Activities	Yearly Goals	Lead Person(s) / Team	Resources	Metric
A. *Technology & Infrastructure: Technology, infrastructure, and data training will be available and in place to support teacher and student access in these varied environments*					
2-A.1: The District ensures all buildings have sufficient internet and enterprise level wireless for formative and summative online assessments	- All schools have sufficient wireless and internet for online assessments and the implementation of the Learning Technology Plan - e-Rate application submitted annually and successfully	**Year 1:** 100% schools with enterprise level wireless by Dec 31, 2013 **Year 1:** 100% schools with updated LAN by Spring 2014 (Appendix E) **Year 2:** Attain 1G connectivity to all high schools and large middle schools by 2014 **Annual Activities:** 1) Apply and retain e-Rate funding 2) Annual spring review of usage and coverage, planning subsequent updates accordingly	EDTIS	Capital Budget; e-Rate	100% schools receive enterprise level wireless installation by Dec 31, 2013; All buildings report full wireless coverage; e-Rate funding obtained annually
2.A-2: Technology Purchase Request Review Process implemented	- Make review form available online - Distribute process to all principals and CTMs - Require all technology purchase requests to follow the review process (Appendix H) - An online catalog of all hardware, software, and application solutions is available to all MNPS staff and regularly updated	**Year 1:** Go-Live with request form **Year 1:** Distribute process to principals during Principal Retreat **Year 1:** Publish hardware, software, and application catalog online for MNPS staff to access **Annual Activities:** 1) Review process effectiveness 2) Review process with principals 3) Update and review online catalog of hardware, software, and application resources	EDLT, EDTIS	Software Developer	Average turnaround time per purchase request
2.A-3: The District establishes a single BYOD policy	- Executive Staff approves BYOD policy Spring 2015 - All students, parents,	**Year 2:** Develop BYOD policy **Year 2:** Develop communications plan **Year 3:** Adopt BYOD policy	EDLT, EDTIS, Metro Legal	EDLT; EDTIS	Number of schools adopting and implementing BYOD

Strategies	Key Activities	Yearly Goals	Lead Person(s) / Team	Resources	Metric
	teachers, and administrators receive BYOD policy and sign an agreement - Students permitted to bring supported devices into schools beginning Fall 2015	**Year 3:** Effectively communicate policy with students, parents, teachers, principals, and administrators **Year 3:** BYOD policy posted on MNPS and every school website			
2-A.4: The District technology use policy includes student use of MNPS devices off-campus	- Legal policy approved by MNPS legal team and included in District technology use policy - Updated technology policy available on MNPS site and each school site - Updated technology policy distributed to all principals	**Year 1-2:** District determines insurance and parent responsibility policies for device use off-campus **Year 2:** Develop communications plan **Year 3:** Update technology use policies **Year 3:** Effectively communicate policy with students, parents, teachers, principals, and administrators **Year 3:** MNPS and all schools post technology use policy on websites	EDLT, EDTIS, Metro Legal, Principals	EDLT; EDTIS	Number of schools permitting devices to be borrowed off-campus
2-B.5: Achieve 1:1 student to device ratio	- All schools achieve 2:1 student to device ratio by 2015 - Laptops prioritized for purchase – for their mobility, flexibility, and use for online assessments	**Year 1:** Identify number of devices needed to reach 1:1 and begin device deployment in most needed areas **Year 2:** Achieve 2:1 student to device ratio **Year 2:** Plan a roll-out schedule for ensuring every student has a device, including BYOD **Year 3:** Begin deploying a device for every student, including BYOD	EDTIS, EDLT, Principals	Capital Budget; Title I	Student to device ratio per school; grants written for new devices and/or training
2-A.6: 1/3 refresh plan instituted to update aging technology	- MNPS establishes an action plan for the on-going removal and replacement of aged devices, using an industry-standard 3-year cycle (1/3 refresh)	**Year 1:** All devices 5 years of age or older removed and replaced by October 2013 **Year 2:** Develop 1/3 refresh plan **Year 3:** Begin 1/3 refresh plan to update aging devices	EDTIS	Capital Budget; Title I	Average age of devices per school; percentage of devices older than 3 years
B. *School-Based Support Structures: Schools will be supported by school-based personnel trained in instructional technology and technical troubleshooting by MNPS experts.*					

Strategies	Key Activities	Yearly Goals	Lead Person(s) / Team	Resources	Metric
2-B.1: Librarians are equipped to support teacher use of instructional technology for CCSS and PBL	- All librarians completed instructional design training at least once every two years - Librarians complete training on CCSS and PBL	**Year 1:** All librarians complete instructional design training with Learning Technology Department **Year 1:** All librarians complete training on CCSS and PBL **Annual Activities:** 1) Learning Technology Department offers instructional design training for librarians 2) Librarians complete instructional design training at least once every two years 3) All new librarians complete instructional design training, CCSS, and PBL	Librarians, Tech Leads, EDLT, EDCI	Instructional Designers; Lead Librarian	- Percentage of librarians complete instructional design training at least once every two years (ERO) - Percentage of librarians complete training on CCSS and PBL (ERO)
2-B.2: Instructional coaches complete instructional technology training and integrate technology into supporting high quality instruction	- Instructional support for teachers integrates technology as a key component of high quality instruction	**Year 1:** Instructional coaches complete instructional technology training **Annual Activities:** 1) High quality instructional support includes the integration of technology 2) Instructional coaches complete instructional technology training 3) Instructional coaches use the instructional technology matrix when appropriate	EDCI, EDLT, Coaches & Trainers	Instructional Coaches, Instructional Designers	Percentage of instructional coaches completing instructional technology training (ERO)
2-B.3: Provide sufficient technology support on site for teachers and students at each school	- Hire more school-specific tech support staff	**Annual Activities:** 1) Principals include technology support staffing in SIP as appropriate 2) Principals identify a tech lead for their building each year who will support use and troubleshooting	EDTIS	Tech Lead; Lead Librarian	Ratio of tech support to device (goal is 1:1000)

Strategies	Key Activities	Yearly Goals	Lead Person(s) / Team	Resources	Metric
		3) Librarian supports technology use and troubleshooting in every building 4) Encourage student groups to support technology in appropriate, supervised courses 5) CTMs and TSS train school-based staff on specific, high volume low skill technology issues 6) School based technology support have consistent and constant communication with TSS and CTM for their school			
C. Facilities: Future construction and updating of learning environments will promote student collaboration, project based learning, and personalized learning via flexible, mobile furniture and fixtures.					
2-C.1: Future construction and updating of classrooms will promote collaboration, project-based learning, and personalized learning	- Furniture purchases target flexible, student-friendly furniture that promotes collaboration and teamwork unless approved otherwise - Classroom updates and designs focus on collaboration and teamwork, including technology installations - Computer labs are maintained/installed only if required by specific instructional/curriculum needs - Mobile technology – laptops, netbooks, tablets, etc. – are prioritized	**Annual Activities:** 1) Consult the Learning Technology Department during the construction or rehabilitation of new buildings or classrooms 2) Consult the Learning Technology Department on significant furniture purchases 3) Construction of computer labs requires instructional justification beginning 2013	EDLT, Principals, DCS	Planning & Construction; Central Services	

Strategies	Key Activities	Yearly Goals	Lead Person(s) / Team	Resources	Metric
2-C.2: Libraries serve as the hub of technology in schools and promote collaboration, project based learning, and teamwork	- All architectural planning for libraries includes consultation with the Learning Technology Department - All furniture purchases are for flexible, student-friendly furniture that promotes collaboration and teamwork among students	**Annual Activities:** 1) Consult the Learning Technology department on furniture, digital resources, and technology purchases 2) Consult the Learning Technology Department on the construction or rehabilitation of any libraries	EDLT, EDTIS, CAO, Principals, Librarians	Planning & Construction; Central Services	

Goal 3: Building and Sustaining Community Leadership and Support

Strategies	Key Activities	Yearly Activities	Lead Person(s) / Team	Resources	Metric
A. Business and Community Organization Engagement & Support: Collaborative oversight between MNPS, Business, and Community leadership will hold the District accountable to this plan and provide assistance and support as needed for successful implementation					
3-A.1: Businesses and community organizations provide guidance on technology choices	- Technology choices in MNPS are informed by business and community leaders as needed	**Annual Activities:** 1) Solicit best practice guidance and expertise for technology choices, purchases, and maintenance from businesses and community organizations 2) Communicate through appropriate channels, particularly the education leader with the Nashville Technology Council	EDLT, EDTIS, Principals, NTC, PENCIL Foundation	NTC; Chamber of Commerce	
3-A.2: Businesses and Community organizations support MNPS requests for technology-rich externships	- Teacher externships are held in technology-rich environments whenever appropriate	**Annual Activities:** 1) Solicit support for teacher externships from technology-related businesses and community organizations 2) Communicate through appropriate channels, particularly the PENCIL Foundation and the education leader of the Nashville Technology Council	EDLT, EDCI, DAON	NTC; Chamber of Commerce; Curriculum & Instruction; Academy Partners; PENCIL Foundation	Number of externships completed annually; Percentage of externships with a technology focus
3-A.3: Businesses and Community organizations support MNPS request for technology-rich, career-related student opportunities	- Student field trip, job shadowing, and internship opportunities are held in technology-rich environments whenever appropriate	**Annual Activities:** 1) Solicit technology-related engagement in K-12 classrooms from businesses and community organization 2) Communicate through appropriate channels, particularly the PENCIL Foundation and the education leader of the Nashville Technology Council	EDLT, EDCI, DAON	Academy Partners; PENCIL Foundation; Chamber of Commerce; NTC	Number of internships (and other opportunities) completed annually; Percentage of gradates completing an internship; Percentage of internships with a technology focus
3-A.4: Data collection by	- Partnership Councils	**Annual Activities:**	DAON, Academy	DAON; Academy	- Incoming freshman

Strategies	Key Activities	Yearly Activities	Lead Person(s) / Team	Resources	Metric
the Partnership Council structure supports the Learning Technology Plan	include technology related data on their existing dashboards and in meeting report-outs	1) Report at Partnership Council meetings on technology literacy assessment scores of incoming freshman cohort	Coaches	Partners; PENCIL Foundation	class 8th grade technology scores - % teachers using Blackboard - Number of capstone projects completed (% of seniors)
3-A.5: Regular updates to NTC on Learning Technology progress	- Strong partnership between the NTC and MNPS for the success of the Learning Technology Plan includes regular checkpoints (Appendix F)	**Annual Activities:** 1) Provide report to MNPS T3 representative prior to each quarterly T3 meeting 2) Annual meeting between MNPS and NTC Board to review Learning Technology Plan progress	NTC (President & CEO), CAO, COO, EDLT, EDTIS, DAON	NTC; DAON; Learning Technology Program Support Manager	Annual Meeting; Attendance of DAON at T3 Workforce Committee Meetings
3-A.6: Quarterly Meetings with Advisory Committee	- Sustained partnership between leaders of the planning process during implementation	**Annual Activities:** 1) MNPS provides report to NTC members of Advisory Committee on Learning Technology Plan progress 2) NTC members provide workforce data and information as well as support removing barriers to the work of MNPS during implementation	Learning Technology Plan Advisory Committee	Learning Technology Program Support Manager	Quarterly Meeting attendance (all members)
B. Marketing and Communication: *Successful marketing and communication strategies will promote commitment to the successful integration of technology in K-12 classrooms from teachers, principals, administrators, parents, and students.*					
3-B.1: Standards, Policies, and Strategic Technology Plans are available online for public consumption	- MNPS Technology Literacy Standards, Technology Use Policies, and Learning Technology Plan posted to MNPS website - MNPS Technology Literacy Standards and Technology Use Policies posted to every school website	**Year 1:** MNPS Technology Literacy Standards, Technology Use Policies, and MNPS Learning Technology Plan posted to MNPS website **Year 1:** MNPS Technology Literacy Standards and Technology Use Policy posted to every school website **Annual Activities:** 1) Update documents as needed	ADC, EDTIS, EDLT, CAO, Principals		Percentage of schools with Technology Literacy Standards posted on website; Percentage of schools with technology use policy posted on website

Strategies	Key Activities	Yearly Activities	Lead Person(s) / Team	Resources	Metric
3.B-2: MNPS and community and business partners include instructional technology in public statements	- Public statements and materials on CCSS, the Academies of Nashville, and other appropriate topics promote the importance of and vision for instructional technology - Promote the importance of and vision for instructional technology during all appropriate presentations to the Board of Education - Business partners promote the Learning Technology Plan and/or the vision for instructional technology	**Year 1:** Hold working session with Board of Education on Learning Technology Plan and the importance of infrastructure and financial support for success on the Plan, related to CCSS implementation, particularly **Annual Activities:** 1) Support public comment on topics related to the Learning Technology Plan and the importance of technology to college and career readiness, CCSS, the Academies, etc. 2) Share strategy document with all parties interested in learning more about the prioritization of instructional technology in MNPS 3) Include the importance of instructional technology in all relevant presentations to the Board of Education	Director of Schools, ADC, CAO, COO, NTC		
3-B.3: Communication with the TN Department of Education and state legislators promotes the importance of instructional technology	- TN Department of Education leadership engages MNPS and other districts in dialogue around instructional technology - State legislators engage MNPS and other District leadership in dialogue around the Basic Education Program* (BEP) formula and the changing needs for technology in TN	**Year 1:** Director of Schools initiates conversation for TN Technology Standards **Annual Activities:** 1) Advocate for State level support of instructional technology, including but not limited to the creation of an instructional technology department and technology standards 2) Advocate with state legislators for updating the BEP funding formula to reflect technology needs across the State	Director of Schools, CAO, COO, EDLT		Number of conversations around technology funding and standards had with TN Department of Education leaders

The Basic Education Program (BEP) is the funding formula through which state education dollars are generated and distributed to Tennessee schools. Click here for a general and non-technical overview of the BEP. (Tennessee State Board of Education definition, 2013).

Appendices

Appendix A: Links

ISTE NETS-S	http://www.iste.org/standards/nets-for-students
ISTE NETS-T	http://www.iste.org/standards/nets-for-teachers
CCSS	http://www.corestandards.org
PARCC	http://www.parcconline.org
NCAC	http://www.ncacinc.com/
CTE Core	http://www.careertech.org/career-technical-education/cctc/info.html
AASL	http://www.ala.org/aasl/guidelinesandstandards/learningstandards/standards
Speak Up	
TELL Survey	http://www.tellmnps.org/
MNPS Technology Literacy Standards	http://mnps.idlearningtech.org/instructional-design/tech-standards

Appendix B: Planning Committee Process & Structure

The first community meeting to discuss the need for technology in MNPS schools was held July 20, 2012. This session convened leaders from the education, business, and nonprofit communities. The result of this meeting was the profile of an ideal high school graduate in Nashville outlined on p10.

In August 2012 a project manager was hired and donated by C3 Consulting to oversee the development of the Learning Technology Plan over the course of one academic year (culminating June 2013). The following process plan was identified and shared with all associated partners. Below is the one-year planning calendar:
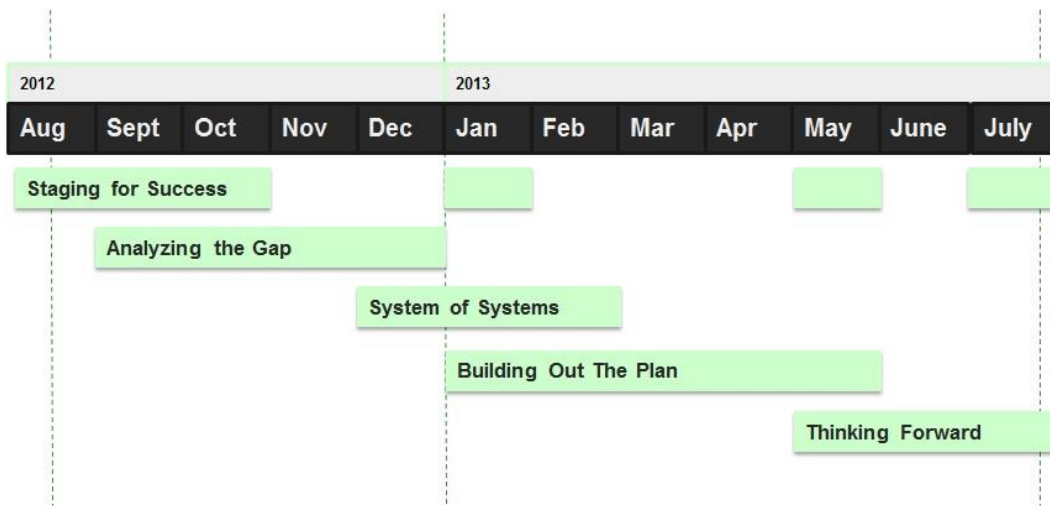
Staging for Success:
- Project Timeline (above)
- Committee Structure (outlined below)
    o   Multi-Stakeholder representation
- Identify Committee deliverables

Analyzing the Gap:
- Research current practice in US states and districts
    o   Visit Henrico County, VA
- Analyze Inventory Reports (See Technology Inventory Report)
    o   Device counts by type
    o   Device counts by age and type
    o   Wireless status
- Interviews with teachers, academy coaches, and principals (See Technology Inventory Report)
    o   Infrastructure satisfaction
    o   Device satisfaction
    o   Teacher and student competency
    o   Support system satisfaction

System of Systems:
- Transforming Teaching and Learning
    o   Technology Literacy Standards (Appendix A)
    o   Threaded Curriculum Document (Appendix A)

- CCSS
- ISTE
- CTE
- AASL
  - o Instructional Technology Matrix (Appendix A)
- Redesigning School Learning Environments
  - o Infrastructure Implementation Plans (begun by TIS in January 2013) (Appendix D)
  - o Learning Environments Focus Groups (See Learning Environments Report: Recommendations)
- Planning for Community Leadership and Support Structure

Building out the Plan:
- Learning Technology Plan 2013-2018

Thinking Forward:
- Community Leadership & Support Structure Plan (Appendix F)
- External Funding Targets Identified (Appendix G)

Committee Structure
The five committee structure included 63 representatives, outlined below. (Members in Appendix J)

```
Advisory          Steering          Technical
Committee  ──────  Committee  ──┬──  Literacy
                                │
                                ├──  Curriculum
                                │    Design
                                │
                                └──  Instructional
                                     Design
```

Teacher, principal, and student feedback were gathered through additional school-based focus groups and consultations.

†Parents and Teachers had the opportunity to participate in several survey options:

1. *TELL Survey (national)*
2. *Speak Up Survey (national and district-level)*
3. *Technology Literacy Standards Review Period (MNPS)*

Stakeholder Group	Participants
MNPS	30
NTC	9
Community / Local Business	11
Teacher / Principal	10*†
Parent	2†
Student	1*
TOTAL	**63**

Appendix C: MNPS 5 Pillars

Leadership Investment Map Summary

	RESULTS			
Goal 1	**Goal 2**	**Goal 3**	**Goal 4**	**Goal 5**
Ensure that school, district, and community leadership is focused on high student achievement and cultivates a collaborative environment that produces excellence for our diverse student body	Graduate all students from high school with college and career readiness by ensuring academic success for every student	Create a self-renewing organization of great teachers and leaders	Provide an effective data system to support instruction	Turn around low-achieving schools and replicate success

	MNPS STRATEGIES			
MNPS Achieves is focused on creating and supporting collaboration between the district and the community, as well as collaboration between stakeholders. We believe collaboration is essential for transformation and *sustainability* of reform efforts. **Collaborative Culture** MNPS Achieves Transformational Change Leadership Model **Collaborative Partnerships** *(Local, State, National, & International)* • Parents & Families • Governmental Agencies • Business Sector • Non-profit Organizations • Postsecondary Institutions	MNPS is focused on the study, design and implementation of transformational change ideas and practices to ensure every student graduates college and career ready. **Standards** • K-12 Common Core Standards • ISTE-NETS Standards (Learning Technology) • Social Emotional Learning (SEL) Standards **Transforming Teaching & Learning (K-12)** • STEM • Literacy Focus • Inclusion • Differentiation • Social and Emotional Learning (SEL) • Experiential Project-Based and Inquiry Learning • Redesigned Learning Environments o High School Redesign, Pathways, Accelerated Learning Options, Magnet Schools, Charter Schools, Non-Traditional Learning Environments, Digital Learning/ Blended Learning • Redesign of Professional Learning Experiences • Restructuring of Student Services **Accountability for Results**	MNPS is focused on increasing the effectiveness and impact of teachers and leaders. Resources are directed at building a pipeline of highly effective teachers and leaders, as well as developing core leadership competencies of teachers, school leaders and central office leadership. **Capacity Building** • MNPS Achieves Transformational Change Leadership Model **Instructional Leadership** • Principal Leadership Institutes • Teacher Leadership Institutes • Development of School-Based Leadership Teams • Network Lead Principals • Skillful Observation & Coaching Lab • The Artisan Teacher **Transforming Teaching & Learning** • Preparation • Recruitment • Induction • Professional Learning **Accountability for Results**	MNPS is focused on developing, and continuously improving, an information strategy that inculcates a data-driven culture in MNPS, at every level of the organization. The primary focus of our strategy is centered on data-driven decision-making at the school and classroom level to inform and improve practice. **Data-informed Decision-Making** • MNPS Data Warehouse • Data Coaches • Battelle for Kids Value-Added Training • TELL Survey (Working Conditions, Use of Time, Collaboration, Data Use) • Servant and Shared Leadership Survey (Principals, Central Office Staff) • Climate Surveys **Infrastructure Support** • Learning Management System • Instructional Management System	MNPS is focused on the most consistently underperforming schools and involves transformative change. It is a results-based continuous improvement process focused on building effective and innovative practices. **Continuous Improvement** Inspirational Schools Partnership (ISP) Process • School Engagement • Analysis • Self-Review • External Review • Improvement planning • School support network **Turnaround Teachers and Leaders** • *RECRUITMENT* • *PROFESSIONAL LEARNING* • *PROFESSIONAL EVALUATION* • *INCENTIVES/REWARDS* **Design & Portfolio Management** • *INNOVATION* • *REDESIGN* **Accountability for Results**

Culture of Support for Teaching & Learning	A high performance service and support organization: (1) Targets resources effectively, (2) increases the district's ability to implement transformational practices at all levels of the system, (3) drives instructional improvement, (4) and ensures these efforts leads to better adult, organizational, and student performance.

Revised: 09/10/2012

Appendix D: Wireless & LAN Installation Schedules

Full LAN Deployment

ID		Task Mode	Task Name	Duration	Start	Finish
1			**Full LAN Deployment 2013-2014**	**304 days**	**Mon 1/7/13**	**Wed 3/12/14**
2			Dupont MS	78 days	Mon 1/7/13	Fri 4/26/13
17			John F. Kennedy MS	95 days	Mon 1/7/13	Tue 5/21/13
32			Oliver, Henry MS	78 days	Mon 1/7/13	Fri 4/26/13
47			Croft DC MS	84 days	Mon 1/7/13	Mon 5/6/13
62			Granbery ES	104 days	Tue 1/29/13	Tue 6/25/13
77			Shayne ES	121 days	Tue 1/29/13	Fri 7/19/13
92			Harpeth Valley ES	114 days	Tue 1/29/13	Wed 7/10/13
107			Meigs MG MS	110 days	Tue 1/29/13	Wed 7/3/13
122			Donelson MS	130 days	Tue 2/19/13	Thu 8/22/13
137			Gower ES	153 days	Tue 2/19/13	Tue 9/24/13
152			Ruby Major ES	140 days	Tue 2/19/13	Thu 9/5/13
167			Dupont-Tylor MS	136 days	Tue 2/19/13	Fri 8/30/13
182			Edison ES	156 days	Tue 3/12/13	Fri 10/18/13
197			Head Mag MS	166 days	Tue 3/12/13	Fri 11/1/13
212			Maxwell, Henry ES	166 days	Tue 3/12/13	Fri 11/1/13
227			Rose Park MG MS	149 days	Tue 3/12/13	Wed 10/9/13
242			Stanford Montessori DC ES	169 days	Wed 4/3/13	Wed 11/27/13
257			Glendale ES	179 days	Wed 4/3/13	Wed 12/11/13
272			Pennington ES	179 days	Wed 4/3/13	Wed 12/11/13
287			Ewing Park	162 days	Wed 4/3/13	Mon 11/18/13
302			Lockland DC ES	182 days	Wed 4/24/13	Mon 1/6/14
317			Harris-Hillman PK-12	192 days	Wed 4/24/13	Mon 1/20/14
332			Robertson Academy PK	183 days	Wed 4/24/13	Tue 1/7/14
347			Middle College	166 days	Wed 4/24/13	Fri 12/13/13
362			Two Rivers MS	214 days	Wed 5/15/13	Wed 3/12/14
377			Academy @ Old Cockrill	189 days	Wed 5/15/13	Wed 2/5/14
392			Nash School Of the Arts MG	192 days	Wed 5/15/13	Mon 2/10/14

Wireless Density Deployment

Priority	School Name	Duration	Start	Finish
1	Creswell, Isaiah T. (MS-5-8)	26 days	27-Dec	4-Feb
2	Goodlettsville (ES-K-4)	26 days	27-Dec	4-Feb
3	Bordeaux EO (ES-PK-4)	26 days	27-Dec	4-Feb
4	Marshall, Thurgood (MS-5-8)	26 days	22-Jan	26-Feb
5	Kelley, A.Z. (ES-K-4)	26 days	22-Jan	26-Feb
6	Eakin (ES-K-4)	26 days	22-Jan	26-Feb
7	Westmeade (ES-K-4)	26 days	22-Jan	26-Feb
8	Jones Paideia MG (ES-K-4)	26 days	5-Feb	12-Mar
9	Big Picture (HS-9-12)	26 days	5-Feb	12-Mar
10	Academy @ Hickory Hollow (Adult)	26 days	5-Feb	12-Mar
11	Green, Julia (ES-K-4)	26 days	5-Feb	12-Mar
12	Old Center (ES-K-4)	26 days	19-Feb	26-Mar
13	Murrell (SE-K-12)	26 days	19-Feb	26-Mar

14	Johnson (SE-K-12)	26 days	19-Feb	26-Mar
15	Crieve Hall (ES-K-4)	26 days	19-Feb	26-Mar
16	Percy Priest (ES-K-4)	27 days	20-Mar	25-Apr
17	Cohn (old Cohn ALC) (12)	27 days	20-Mar	25-Apr
18	McGavock (HS-9-12)	27 days	20-Mar	25-Apr
19	Antioch (HS-9-12)	27 days	20-Mar	25-Apr
20	Hunters Lane (HS-9-12)	28 days	3-Apr	10-May
21	Cane Ridge (HS-9-12)	28 days	3-Apr	10-May
22	East Literature MG (HS-5-12)	28 days	3-Apr	10-May
23	Hillwood (HS-9-12)	28 days	3-Apr	10-May
24	Hillsboro HS (HS-9-12)	27 days	19-Apr	28-May
25	Whites Creek (HS-9-12)	27 days	19-Apr	28-May
26	Hume-Fogg MG (HS-9-12)	27 days	19-Apr	28-May
27	McMurray (MS-5-8)	27 days	19-Apr	28-May
28	Bellevue (MS-5-8)	27 days	3-May	11-Jun
29	Cockrill (ES-PK-4)	27 days	3-May	11-Jun
30	Charlotte Park (ES-K-4)	27 days	3-May	11-Jun
31	Wright (MS-5-8)	27 days	3-May	11-Jun
32	Haywood (ES-PK-4)	26 days	20-May	25-Jun
33	Paragon Mills (ES-K-4)	26 days	20-May	25-Jun
34	Moss, J.E. (ES-K-4)	26 days	20-May	25-Jun
35	Apolllo (MS-5-8)	26 days	20-May	25-Jun
36	Lakeview (ES-K-5)	26 days	4-Jun	10-Jul
37	Glenview (ES-K-4)	26 days	4-Jun	10-Jul
38	Cole (ES-K-4)	26 days	4-Jun	10-Jul
39	Stratton (ES-K-4)	26 days	4-Jun	10-Jul
40	Amqui (ES-PK-4)	27 days	20-Jun	29-Jul
41	Neelys Bend (MS-5-8)	27 days	20-Jun	29-Jul
42	Early, John Paideia MG (MS-5-8)	27 days	20-Jun	29-Jul
43	Tusculum (ES-K-4)	27 days	20-Jun	29-Jul
44	Joy, Tom (ES-K-4)	26 days	8-Jul	12-Aug
45	Whitsitt ES (ES-PK-4)	26 days	8-Jul	12-Aug
46	Park Avenue EO (ES-PK-4)	26 days	8-Jul	12-Aug
47	Glengarry (ES-K-4)	26 days	8-Jul	12-Aug
48	Glencliff (ES-K-4)	26 days	23-Jul	27-Aug
49	Bellshire (ES-K-4)	26 days	23-Jul	27-Aug
50	Binkley, Norman (ES-K-4)	26 days	23-Jul	27-Aug
51	Baxter (ALC-7-12)	26 days	23-Jul	27-Aug
52	Cotton, Hattie (ES-PK-4)	26 days	6-Aug	11-Sep
53	Neelys Bend (ES-K-4)	26 days	6-Aug	11-Sep
54	Gra-Mar (MS-5-8)	26 days	6-Aug	11-Sep
55	Napier EO (ES-PK-4)	26 days	6-Aug	11-Sep
56	Allen, Margaret Montessori (MS-5-8)	27 days	20-Aug	26-Sep
57	McKissack (MS-5-8)	27 days	20-Aug	26-Sep

58	Brick Church (MS-5-8)	27 days	20-Aug	26-Sep
59	Cumberland (ES-K-4)	27 days	20-Aug	26-Sep
60	Warner EO (ES-PK-4)	27 days	4-Sep	10-Oct
61	Shwab (ES-PK-4)	27 days	4-Sep	10-Oct
62	Green, Alex (ES-K-4)	27 days	4-Sep	10-Oct
63	Inglewood (ES-K-4)	27 days	4-Sep	10-Oct
64	Rosebank (ES-K-4)	27 days	19-Sep	25-Oct
65	Lillard, Robert E. (ES-K-4)	27 days	19-Sep	25-Oct
66	Kirkpatrick EO (ES-PK-4)	27 days	19-Sep	25-Oct
67	McGavock (ES-K-4)	27 days	19-Sep	25-Oct
68	Fall-Hamilton EO (ES-K-4)	26 days	7-Oct	11-Nov
69	Caldwell EO (ES-K-4)	26 days	7-Oct	11-Nov
70	Ross (ES-PK-4)	26 days	7-Oct	11-Nov
71	Glenn EO (ES-PK-4)	26 days	7-Oct	11-Nov
72	Howe, Cora (SE-K-12)	26 days	22-Oct	26-Nov
73	McCann (ALC-K-8)	26 days	22-Oct	26-Nov
74	Una (ES-K-4)	26 days	22-Oct	26-Nov
75	Carter-Lawrence MG (ES-PK-4)	26 days	22-Oct	26-Nov
76	Goodlettsville (MS-5-8)	26 days	4-Nov	11-Dec
77	Madison MS (MS-5-8)	26 days	4-Nov	11-Dec
78	Haynes DC (MS-5-8)	26 days	4-Nov	11-Dec
79	Bass ALC, W A (HS-9-12)	26 days	4-Nov	11-Dec
80	Maplewood (HS-9-12)	27 days	18-Nov	31-Dec
81	Pearl Cohn (HS-9-12)	27 days	18-Nov	31-Dec
82	Glencliff (HS-9-12)	27 days	18-Nov	31-Dec

Appendix E: Proposed Initial Funding Estimates

TIS - Item	Projected Cost	Count	Resource
1:1 Elementary	$11,325,600	28314	Capital***
1:1 Middle	$8,102,400	20256	Capital
1:1 High	$6,000,000	15,000	Capital
Wireless + LAN*	$15,000,000		Capital
Total	**$40,428,000**		

*Installations began 2012
**Total Based on $400/laptop estimate (does not include software and security installations by TIS Department)
***Capital Budget can be obtained from TIS Department

Summer 2013 Professional Learning	Projected Cost	Individuals Trained	Resource
Librarian ID	$0	135	KH/DM
Clerk ID	$0	86	KR/JW
PARCC Readiness	$0		KR/JW
CCSS & PBL	$230,000	1535	KH/DM
Total			

CTE - Item	Projected Cost	Count	Resource
Dell Desktops	$375,000	500	Perkins*
Dell Laptops	$120,000	100	Perkins
Engineering Desktops	$150,000	100	Perkins
Macs	$84,000	60	Perkins
Total	**$729,000**		

*Perkins Act federal grant funding for vocational & technical education

Appendix F: Oversight Structure

Oversight Type	Timeline	Responsible
NTC Report	Annual: - Jan – Internal Review - June – Annual report	Jan: Jay Steele & Fred Carr June: Jay Steele, Fred Carr, Kecia Ray, John Williams, Brenda Steele
L&L Plan – Report Card Committee Updates	Bi-Annual	Jay Steele & Fred Carr
NTC T3 Committee Report	Quarterly	Chaney Mosley
Advisory Committee	Quarterly	Jay Steele, Fred Carr, Kecia Ray, John Williams, Brenda Steele, Katherine McElroy, Kent Fourman, Liza Massey
Partnership Council Dashboards	Quarterly	JS, Chaney Mosley

Appendix G: Identified Funding Targets

MNPS Learning Technology Plan – Funding and Key Components
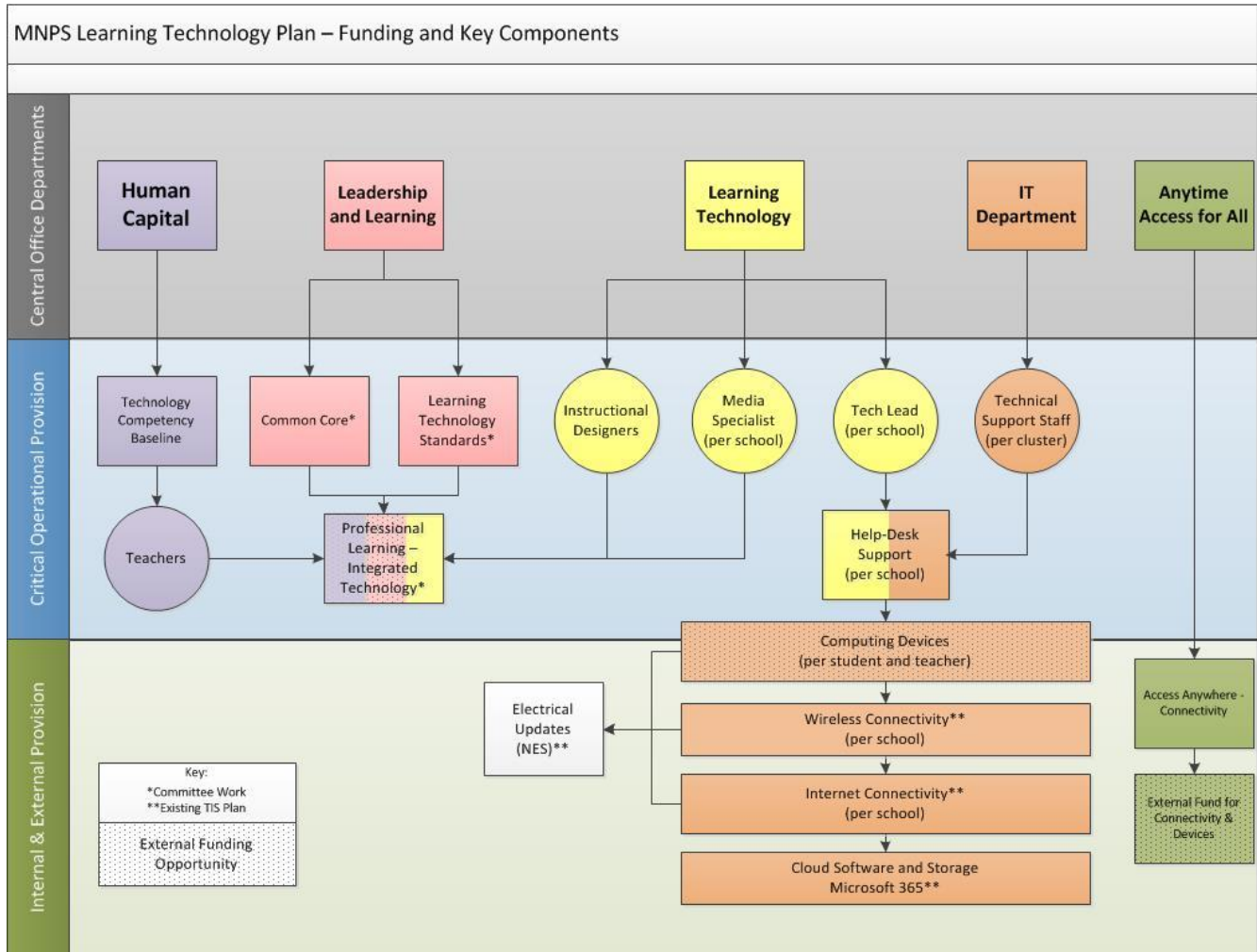
Appendix H: Technology Purchase Request Review Process

MNPS Technology Purchase Request Review Process

Key:
- School-Level
- Technology & Information Services
- MNPS Central Office (Multi-Department)
- Learning Technology Department
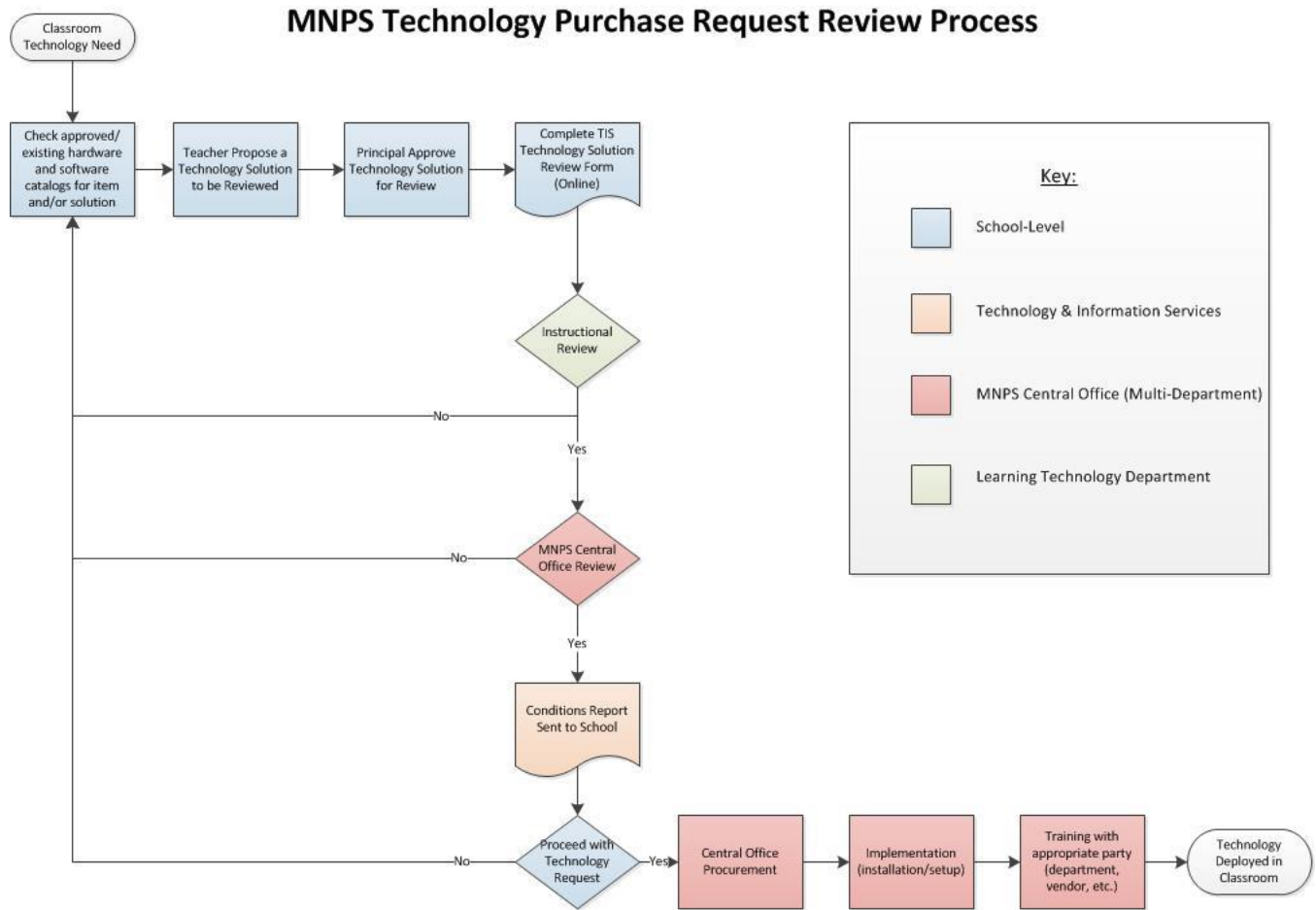
Appendix I: 2012-2013 Outcomes & Accomplishments

Goal 1: Transforming Teaching & Learning

Strategies	Lead Person(s) / Team	2012-2013 Outcomes
Curriculum: Use of technology as a tool for learning will be integrated across a rigorous and relevant curriculum that prepares students to be college and career ready.		
MNPS Technology Literacy Standards adopted K-12	Executive Director of Learning Technology, Assistant to the Director for Communications	Year 0: Write Technology Literacy Standards Year 0: Adopt Technology Literacy Standards Year 0: Develop Communications Plan
All CCSS resources for teachers and administrators include instructional technology materials	Executive Directors of Curriculum & Instruction, SchoolNet Lead, Executive Director of Learning Technology, Coaches &Trainers, Teachers	Year 0: Complete standards threading (CCSS, ISTE, AASL, CTE) Year 0: SchoolNet training program developed Year 0: Develop CCSS & Technology Communications Plan
Professional Learning: All teachers, principals, and administrators will have access to professional learning opportunities that model technology integration and prepare participants for leveraging technology as a tool for learning and engagement in their classrooms, schools, and offices.		
Professional learning opportunities for teachers and administrators model and employ instructional technology techniques (including CCSS)	Executive Directors of Curriculum & Instruction, Coaches & Trainers, Executive Director of Learning Technology	Year 0: CCSS Summer training planned with Instructional Designers and provides opportunities for teams to build with technology resources at the Martin Center
Librarians serve as school-based instructional designers	Executive Director of Learning Technology, Librarians	Year 0: Librarian and Lead Librarian job descriptions updated to reflect instructional design duties Year 0: Librarian training plan and curriculum designed and available June 2013 Year 0: Develop Librarian Learning Technology Department establishes a pool of identified high quality librarians from which principals can select new hires
District provides training on instructional design and technology integration to schools	Executive Director of Learning Technology, Librarians, Teachers	Year 0: Develop Communications Plan Year 0: Instructional Technology matrix completed
District provides training on technical requirements of online assessments	Executive Director of Learning Technology	Year 0: Develop Training Curriculum Year 0: Develop Training Calendar
Create PLC to distribute technology information and training on specific	Executive Director of Learning Technology, Executive Director of	Year 0: Create PLC and recruit participants (min. 1 per school) Year 0: Develop training plan and schedule

devices and applications	Technology & Information Services, Teachers	
Facilitate Engage Me training to all K-8 teachers to support CCSS engagement	Executive Director of Learning Technology	Year 0: Develop Engage Me training plan Year 0: Communicate Engage Me training opportunities and incentives
Instruction: Instructional technology will be used as a tool for engagement and personalized learning.		
All schools follow a blended learning model	Executive Director of Learning Technology, Teachers	Year 0: Determine target courses for blended model Year 0: All AP, and IB courses blended Year 0: Planning for blending Freshman Seminar begins Year 0: Hunter's Lane blended project begins
Human Capital: The District will recruit and hire high quality teachers with basic technology competency and a willingness to use technology to engage students and personalize learning.		
Principals select teachers with basic technology competency and a willingness to learn and use instructional technology practices	Executive Director of Learning Technology, Executive Director of Talent Strategy, Principals	Year 0: Guidelines prepared for principals around interviewing and hiring technology literate teacher candidates
MNPS recruits, hires, and develops a technology literate teacher cadre	Executive Director of Learning Technology, Executive Director of Talent Strategy, Teachers, Coaches & Trainers	Year 0: Guidelines prepared for principals around interviewing and hiring technology literate teacher candidates Year 0: Human Capital agrees to determine how to implement a technology assessment for teacher candidates
Student Assessment: Assessment strategies will be incorporated to ensure that students are technology literate and college and career ready.		
Technology literacy assessments are administered in each tier	Executive Director of Learning Technology, Executive Directors of Curriculum & Instruction, Teachers	Year 0: District agrees to require Technology Literacy Assessment at the 8th grade Year 0: Agreement reached to design (2013-14) and implement (2014-15) a digital learning portfolio (including technology components) requirement in elementary and a technology component for all capstone experiences
MNPS Ownership & Clear Understanding of Roles: For instructional technology implementation to be successful, all parties in MNPS will need to have clear understanding of their roles and responsibilities, action steps, timelines, and outcomes.		
The Chief Operating Officer supports and evaluates Executive Director of Technology & Information Services on Learning Technology Plan implementation	Chief Operating Officer	Year 0: Present technology needs for CCSS and PARCC to School Board
The Executive Director of	Executive Director of	Year 0: Increase collaboration between Learning

Technology & Information Services supports the instructional and learning needs of teachers and students	Technology Information Services	Technology & Technology & Information Services Departments
Executive Director of Learning Technology ensures instructional design support is provided to all teachers, principals, coaches, and trainers	Executive Director of Learning Technology	Year 0: Increase collaboration between Learning Technology & Technology & Information Services Departments Year 0: Present technology needs for CCSS and PARCC to School Board
Executive Directors for Curriculum and Instruction ensure that 21st century skills and technology literacy competencies are embedded throughout curriculum and trainings	Executive Directors for Curriculum & Instruction	Annual Activities: 1) Increase collaboration with Curriculum and Instruction Department 2) Develop annual professional learning plans for teachers and principals that include instructional technology
Principals hire teachers and administrators with technology literacy and include instructional technology planning in annual SIPs	Executive Director of Learning Technology, Chief Academic Officer, Executive Director of Talent Strategy	Year 0: District leadership agrees to include instructional technology planning in SIPs beginning 2014 Year 0: Guidelines prepared for principals around interviewing and hiring technology literate teacher candidates

Goal 2: Redesigning School Learning Environments

Strategies	Lead Person(s) / Team	2012-2013 Outcomes
Facilities: Learning environments will promote student collaboration, project based learning, and personalized learning via flexible, mobile furniture and fixtures.		
Classrooms promote collaboration, project-based learning, and personalized learning	Principals, Executive Director of Learning Technology, Director of Central Services	Year 0: District restricts installation of computer labs to instructionally required requests and promotes mobile devices Year 0: District restricts purchase of traditional desks and promotes purchase of mobile, collaborative tables and similar furniture
Libraries serve as the hub of technology in schools and promote collaboration, project based learning, and teamwork	Principals, Librarians, Executive Director of Learning Technology, Executive Director of Technology & Information Services, Chief Academic Officer	Year 0: Librarians reorganized to the Learning Technology Department
Technology & Infrastructure: Technology, infrastructure, and data training will be available and in place to support teacher and student access in these varied environments		
The District ensures all buildings have sufficient internet and enterprise level wireless for formative and summative online assessments	Executive Director for Technology & Information Services	Year 0: Calendar for wireless and LAN updates/installations created Year 0: Wireless and LAN updates/installations begin
Technology Purchase Request Review Process implemented	Executive Director of Technology & Information Services, Executive Director of Learning Technology	Year 0: Technology Purchase Request Review Process designed in cross-departmental collaboration
School-Based Support Structures: Schools will be supported by school-based personnel trained in instructional technology and technical troubleshooting by MNPS experts.		
Librarians are equipped to support teacher use of instructional technology for CCSS and PBL	Librarians, Tech Leads, Executive Director of Learning Technology, Executive Directors for Curriculum & Instruction	Year 0: Training schedule and content developed for Librarian training in instructional design Year 0: Librarian training in instructional design begins

Goal 3: Building & Sustaining Community Leadership & Support

Strategies	Lead Person(s) / Team	2012-2013 Outcomes
Business and Community Organization Engagement & Support: Collaborative oversight between MNPS, Business, and Community leadership will hold the District accountable to this plan and provide assistance and support as needed for successful implementation		
Establish partnership between MNPS and NTC T3 Committee	Executive Director of Learning Technology, Director of Academies, T3 Committee	Year 0: Director of the Academies of Nashville serves as first MNPS representative to the NTC's T3 Committee
Marketing and Communication: Successful marketing and communication strategies will promote commitment to the successful integration of technology in K-12 classrooms from teachers, principals, administrators, parents, and students.		
Standards, Policies, and Strategic Technology Plans are available online for public consumption	Assistant to the Director for Communications, Principals	Year 0: Technology Literacy Standards posted on Learning Technology Department and MNPS websites Year 0:
Communication with the TN Department of Education and state legislators promotes the importance of instructional technology	Director of Schools, Chief Academic Officer, Chief Operating Officer, Executive Director of Learning Technology	Year 0: Executive Director of Learning Technology meets with Governor on instructional technology Year 0: MNPS leaders serve on TN Department of Education Common Core Implementation Team

Appendix J: Committee Member List

Mario Avila	Contigo Financial	**Ty Hollett**	Vanderbilt University
Tom Bayersdorfer	MNPS	**Colleen Hoy**	C3 Consulting
Kathy Bennett	MNPS	**Rob Jack**	Parent
Glen Biggs	Alignment Nashville	**Robin Jocius**	Vanderbilt University
Emily Bristow	MNPS	**Margie Johnson**	MNPS
Abby Butler	MNPS	**Mike Law**	MNPS
Fred Carr	MNPS	**Matt Madlock**	Student
Nicole Chaput-Guizani	MNPS	**Taffy Marsh**	MNPS
Kevin Crane	Nashville Public Television	**Liza Massey**	NTC
Mark Davison	Delek	**Katherine McElroy**	C3 Consulting
Tracey Dill	United Way of Middle TN	**Kelly McKinney**	MNPS
Giumarra Duhart	MNPS	**Michelle McVicker**	MNPS
Kent Fourman	The General Insurance	**Dave Moore**	MNPS
Richard Frank	MNPS	**Chaney Mosley**	MNPS
Donna Gilley	MNPS	**Chris Moth**	Parent
Travis Gregg	Trinisys	**Bill Nelson**	Little Planet
Colleen Grissom	MNPS	**Tischann Nye**	MNPS
Laura Hansen	MNPS	**Chelsea Parker**	PENCIL Foundation
Jack Hawkins	MNPS	**Chuck Pirtle, Jr.**	MNPS
Canidra Henderson	MNPS	**Jill Pittman**	MNPS
Kelly Henderson	MNPS	**Kecia Ray**	MNPS
Doug Renfro	MNPS	**Maddy Underwood**	Student

JoAnn Scalf	Nashville Public Television	**Aleah White**	MNPS
Brenda Steele	MNPS	**Michelle Wilcox**	MNPS
Jay Steele	MNPS	**John Williams**	MNPS
Adam Taylor	MNPS	**Robert Wilson**	MNPS
John Teeter	MNPS	**Tina Yahnian**	MNPS
Susan Thompson	MNPS	**Steve Yazell**	Telecom

Appendix K: Glossary

Blended Learning: A formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace and at least in part at a supervised brick-and-mortar location away from home.

MNPS states that blended learning at each tier includes a minimum percentage of content delivered online. High schools will have 60% or more, middle schools 50% or more, and elementary, 20% or more.

Common Core State Standards (CCSS): Adopted by the State of Tennessee and 45 other states in the United States. The initial standards include literacy and mathematics. These standards center on 21st century skills and are praised for being broader and deeper than previous standards. Assessment of the CCSS begins 2014 with the Partnership for the Assessment of Readiness for College and Careers (PARCC) online assessment.

Instructional Design: A process by which performance problems are identified, then systematic designing and implementation of instruction from the perspective of the learner occurs. While there is no one instructional design process, the most common model is the ADDIE model: Analysis, Design, Development, Implementation, and Evaluation.

Instructional Technology: Instructional Technology incorporates five interdependent characteristics of meaningful learning environments: active, constructive, goal directed (i.e., reflective), authentic, and collaborative.

Personalized Learning: Instruction is paced to learning needs, tailored to learning preferences, and tailored to the specific interest of different learners.

Virtual Learning Environment: Refers to 'the components in which learners and tutors participate in "on-line" interactions of various kids, including on-line learning.

Acronyms:
AASL	American Association of School Librarians
BYOD	Bring Your Own Device
NTC	Nashville Technology Council
CCSS	Common Core State Standards
CTE	Career & Technical Education
CTM	Cluster Technology Manager
EOC	End of Course
ERO	Electronic Registrar Online
ISTE	International Society for Technology in Education
LMS	Learning Management System
MNPS	Metropolitan Nashville Public Schools
NCAC	National Career Academy Coalition
NTC	Nashville Technology Council
NETS	National Education Technology Standards (as defined by ISTE)
PARCC	Partnership for the Assessment of Readiness for College & Careers
PBL	Problem Based Learning
PLC	Professional Learning Community
P21	Partnership for 21st Century Skills
SIP	School Improvement Plan
TN DOE	Tennessee Department of Education
TSS	Technology Support Specialist
T3	Turning the Tide of Technology (Committee)