Strategic Instructional Technology Plan

*2012 - 2015*

*Sample District*

**Table of Contents**

1. Introduction 3

Background 3

Sample District Technology Organization – Roles and Responsibilities 4

The Instructional Technology Team 4

Technology Department Management and Staffing 4

District Mission 8

Vision 8

2. Technology Needs – Current Status 9

Current Status of Technology Use in Sample District Schools 9

Technology Integration 9

Technology Infrastructure 9

Technology Professional Development 9

Technology Literacy and Standards 9

Instructional Technology Priorities/Needs 10

Technology Integration 10

Technology Infrastructure, Access and Support 10

Technology Professional Development 11

Technology Literacy 11

3. 2012 – 2015 Strategic Goals and Action Plans 12

Strategic Goals 12

Student and Teacher Skills 12

District Policies and Administration 12

Technology Infrastructure 12

Action Plans 13

Student and Teacher Skills 13

District Policy and Administration 18

Infrastructure 21

4. Evaluation and Assessment for Technology 24

Evaluation Design 24

Evaluation and Technology Plan Updates: 2012 – 2015 25

Budget 26

Inventory 27

Appendix I: Professional Development Principles 28

Appendix II: Curriculum Mapping Plan 29

Appendix III: Standards 31

NETS-S (Students) 31

NETS-T (Teachers) 32

NETS-A (Administrators) 33

# 1. Introduction

## Background

The following plan provides strategic direction and establishes specific action steps related to how the instructional technology will be implemented so as to benefit teaching and learning in Sample District schools over the next three calendar years. The Strategic Technology Plan is designed to provide a blueprint for district technology efforts.

The basic premise of this plan – as informed by research -- is that pedagogy and curriculum must drive instructional technology use. Beyond this, the plan is also built upon the knowledge that Sample District students need teachers who understand how to teach in ways that foster the development of thinking skills as well as the acquisition of content knowledge. Technology has a role to play in supporting teachers in both of these tasks, even if at present most teachers are largely only familiar with the use of technology for teaching content or perhaps with the teaching of technology skills as content. The strategic directions of this plan aim to develop teacher skills, and to facilitate teacher use of technology to accomplish new tasks and to truly bring our schools and the work that occurs within them into the 21st Century.

We realize that we face considerable obstacles in achieving our overall goal of utilizing technology tools to enrich and improve learning for all students. As the **Current Status** (Chapter 2) section of this document shows, at present all too many of our classrooms are organized as teacher-centered environments that are more characteristic of the 19th century than the 21st century learning spaces that they aspire to be. While many of our schools and classrooms have modern technology within them, our teachers do not yet possess the skills in pedagogy to utilize these tools effectively to produce the desired learning outcomes. The supports and training necessary to bring these teachers into the 21st century do not exist. Nor do we generally have the policies in place to establish the accountability necessary to insure that teachers are teaching in the ways we know are necessary to prepare our students the futures that we imagine for them.

Armed with the knowledge that we need to change how teachers think about learning and pedagogy and the tools used to accomplish both, a major thrust of this new Technology Plan is teacher professional development. At the district level, Sample District will create professional development models and resources that can be implemented at the school level. New professional development efforts include work on mapping technology tools, and the NETS standards, onto core curriculum frameworks so that teachers can have specific, concrete, examples of how they can achieve the teaching of 21st Century Learning skills aligned with curriculum in their own classrooms. This will be just one of a number of major professional development efforts starting as soon as the spring of 2012.

As noted above, a central principle that underlies this Technology Plan is that achievement of the ISTE NETS standards for students, teachers and administrators drives the work of this plan. For the most part, NETS describe the desired outcomes for students/teachers/administrators as related to how technology is used to support 21st Century learning. Meeting the NETS standards means creating those learning environments that facilitate the development and practice of the types of thinking and learning that are necessary to success as a lifelong learner. This too is the over-aching goal of Sample District’s Strategic Technology Plan. Therefore, it is reasonable to say that the point of this plan is to enable all teachers, students and administrators to achieve the NETS standards. Much of what follows then is about how Sample District will establish the professional development, infrastructure, and accountability process for meeting NETS standards and thereby supporting 21st Century learning for all students.

This plan is meant to be a living document that is referred to frequently and adjusted as necessary. In addition, the Plan has been drafted to align with the individual school improvement plans developed byu each of Sample District’s schools, as well as the following five E-Rate program requirements:

* The plan must establish clear goals and a realistic strategy for using telecommunications and information technology to improve education or library services;
* The plan must have a professional development strategy to ensure that staff know how to use these new technologies to improve education or library services;
* The plan must include an assessment of the telecommunication services, hardware, software, and other services that will be needed to improve education or library services;
* The plan must provide for a sufficient budget to acquire and support the non-discounted elements of the plan: the hardware, software, professional development, and other services that will be needed to implement the strategy; and
* The plan must include an evaluation process that enables the school or library to monitor progress toward the specified goals and make mid-course corrections in response to new developments and opportunities as they arise.

The Sample District Technology Plan for 2012 – 2015 addresses and more than fulfills the intent of all of the E-Rate program requirements.

## Sample District Technology Organization – Roles and Responsibilities

In order to implement its Strategic Instructional Technology Plan and move forward into implementing the 21st century learning environments called for in the following pages, the district will need to reform the way in which technology is overseen and managed within the district. Key to this new organization is the creation of a stronger connection between technology management and the district’s curriculum and instruction infrastructure, and the placement of considerably more instructional and technical resource people at the building level.

### The Instructional Technology Team

As a starting point for its re-envisioned organization for Instructional Technology, the district will create an Instructional Technology Team composed of district stakeholders such as teachers, administrators, and other community members. This Team will meet regularly to oversee the broad implementation of the district’s Strategic Technology Plan, and will serve to meet the district’s policy that there be procedures for the proper acquisition of technology. The Team will provide guidance and input into how the district interprets the strategic needs related to technology and how these needs are met through the various initiatives, purchases, and actions of the district staff working to support technology as a tool for teaching and learning. The advantages of this committee approach are clear. Stakeholder involvement and oversight are critical for gaining the buy-in necessary for technology to be implemented meaningfully throughout the district. Most importantly, by engaging regularly with this plan, the Instructional Technology Team will insure that the plan is more than a “document on the shelf” but instead provide a living, fluid, roadmap – one that is continually assessed as to its ability to meet the curriculum-focused needs of all learners – that the district desires.

### Technology Department Management and Staffing

The current Strategic Technology Plan specifies a revised structure for roles and responsibilities related to technology management and staffing. This structure is shown below and described in the following brief position descriptions.

****

**Executive Director of Technology**

This position oversees all District Technology operations, while collaborating with all areas of the district to provide technology solutions for instruction and operations. This person is also responsible for the department budget, vendor contract negotiations, project and staff management, district technology policy, industry trends assessment, planning, resource allocation and efficiency improvements. The Director ensures that federal, state and district policies, such as CIPA, eRate technology needs, Department of Education technology requirements are supported and completed.

#### Instructional Technology Integration Services

**Instructional Technology Integration Manager (Proposed)**

This position – **to be hired in 2013 (see District Policy, Goal 2)** - researches, plans, coordinates, and oversees the implementation of district instructional technology initiatives for all schools K-12. This includes staff professional development, instructional technology solutions management, vendor coordination, intra district and community collaboration and communication, and ongoing staff and school support. This position oversees all instructional technology specialists.

**Building-Based Instructional Technology Specialists (12 Proposed)**

These positions **– to be hired in 2013 (see District Policy, Goal 2)** - work directly with building leaders and staff to integrate District instructional technology initiatives. This work includes the development of ongoing face to face and on demand staff professional development, the setup and management of ongoing central instructional technology solutions, as well as the evaluation and required modification of these initiatives to meet District instructional technology goals and timelines. This team will report to the Instructional Technology Integration Manager and will utilize the ISTE NETS-C standards for instructional technology coaching.

#### Infrastructure Services

**Infrastructure Operations Manager (Previously Network Administrator)**

This position manages the entire district network, including connectivity between all buildings.  This includes roughly 250 managed network routers; 15,000+ network drops; 450+ wireless network access points; access controls; network and web security; specialized networks for phones, cafeterias, and data center; guest and Internet-only access;  all data/server backup services and disaster recovery; power backup systems for all core network devices and data centers. This person serves as the Lead Administrator for the Infrastructure Services Team.

**Network and Systems Engineer**

This position manages, supports and monitors all infrastructure data center and central District systems, including servers, applications, and power management. In addition, this person, oversees core enterprise solutions, system policy management, and thin client operations and assists with tier one network support services

#### Information Systems Services

**Director of Information Systems**

This position oversees the student data systems, including all administrative functions, teachers’ grade books, the student/parent portal, and dozens of interfaces to peripheral databases and outside entities.  This position is responsible for overseeing the Special Services’ software system and maintaining district-wide content management sites. The Director coordinates data solutions for a variety of district instructional and operational departments as well as government agencies. The Director oversees Information Systems’ budget development and management, and is responsible for vendor relations, professional development offerings, project management, communications, and collaboration with district, regional, and state constituents to ensure mandates and needs are met efficiently and effectively. This person serves as the Lead Administrator for the Information Systems Team.

**Project Manager (County Employee)**

The Project Manager position is responsible for the discipline, medical, success plan, RTI, assessment, ELS, 504 and gifted student data management. This position also performs database management and security duties as well as verifies access to the Student Information System. In addition, they maintain the Cognos student catalogs, write district student information reports and oversee new software module implementations.

**Applications Specialist (County Employee)**

The Applications Specialist position is responsible for maintaining the master schedule, student schedules, the teacher grade book, transcripts, report cards, interim reporting, graduation requirements, course requests, athletic eligibility, and attendance setups at the district level.  This position performs continual data analysis to address issues preemptively, writes reports and resolves Help Desk issues to support the buildings, the Teaching and Learning Department, and EMIS.

**Information Systems Data Specialist**

The Information Systems Data Specialist position is responsible for performing operational duties for the Information Systems Services team. This position writes and maintains district reports and performs data audits. The position also provides Tier one student information system direct support to office and classroom staff , sets-up and maintains teacher accounts for the district’s Student Information System and provides onsite training.

**Elementary Data Specialist**

The Elementary Data Specialist is responsible for supporting elementary buildings in maintaining their student data and assisting with data entry.  This position provides assistance with elementary report cards, interim reports, master schedules, and student schedules. This position provides guidance in registration procedures, verifies community school enrollments and SSID continuity, supports the Enrollment Center, and performs data analysis to ensure data integrity. This role allowed for a consolidation of building duties, resulting in District savings.

**Information Systems Lead Tech**

The Information Systems Lead Tech oversees all central Special Services data system applications. This position provides professional development for users and researches ODE updates and changes regarding Special Education practice and procedures. The Lead Tech works with the EMIS Coordinator as a quality check for compliance and coordinates required student records transitions.

#### Technical Support Services

**Technology Operations Manager** (Previously User Support Supervisor) (Half Funded by Child Nutrition)

This position provides technology project management, day-to-day technology operations, and customer service for District classroom, administrative, assistive, and child nutrition technologies. This includes the management of purchased services, staffing and technical support resources as well as hardware procurement, end station security, software management and asset management.

**Provisioning and Systems Engineer**

This position manages over 10,000 technology accounts and access and provisioning for all staff, students, and contractors in order to support both instructional and operational technology needs and to ensure compliance with district, state, and federal regulations imposed by district administration. This person also manages all print services, user access support, internet filtering access and imaging services while managing all related central systems.

**Adaptive Technology Technician**

This position manages all Student Services Assistive technology needs district-wide. This includes IEP technology compliance, classroom solutions, specialty software, systems, etc. Works with IEP teams to develop appropriate and efficient technology solutions for students with assistive technology needs.

**System Support Technicians (6 Current, 9 additional proposed)**

The six current positions are district technology field technicians that personally address all staff, student, and administration technology service requests for all 6000+ computers, 500+ printers, and multiple software packages at all 26 district buildings. Each technician is assigned to four to five buildings. They are responsible for successfully closing over 9,000 tickets annually.

The November 2012 technology program review recommended increasing the number of technology support staff by nine employees. Until additional positions are added, we recommend reinstating the Building Technology Representative each school building. These positions previously had received a small stipend to provide technology support in their building.

**Additional Network Support (Purchased Services)**

Due to the exponential expansion of the District’s network, the need for additional management, security and support are increasing dramatically. This will be addressed with an increase in purchased services support to supplement our one network administrator in supporting the District’s network management, allowing the network administrator to focus on, infrastructure services management, improvements and efficiencies.

## District Mission

*The mission of the Sample District* in partnership with the entire community, is to provide academic excellence for all students, to promote respectful and caring relationships and to encourage a culture of reflection, conversation, collaboration and commitment to continuous improvement.

## Vision

*We envision an educational community of productive, proud, great thinking educators and students supported by innovative, accessible and secure technology.*

# 2. Technology Needs – Current Status

## Current Status of Technology Use in Sample District Schools

Between June and December, 2011, The Sample District contracted the services of an independent evaluator to assess key dimensions of the district’s instructional technology implementation effort. These dimensions included: Technology Integration, Technology Infrastructure and Access, Technology Professional Development, and Technology Literacy and Standards. To evaluate progress in these areas, the evaluators collected survey and in-person interview/observation data from elementary and secondary teachers, students, administrators as well as parents of students from all levels.

Viewed against a research-based standard of best practice, findings from the evaluation provide an accurate picture of the current state of technology use and integration across the district. Key findings, are:

### Technology Integration

* While teacher use of technology for presentation is widespread, there is very little integration of technology in the sense of students using technology to develop and support higher order thinking skills - also known as 21st century learning skills.
* Integration of technology is limited by what is essentially a teacher-centered learning environment. Within this current context, there is not much more that teachers can do other than to use technology for presentation.
* Most student uses of technology are “add-ons” to core curriculum and are not central to the mastery of core curriculum standards and skills

### Technology Infrastructure

* In general, technology tools and devices, notably Promethean “smart” whiteboards, are widely available in Sample District schools, classrooms, and labs.
* Technical support is available, but there exists considerable confusion in most schools as to how to effectively access this support.
* Implementation support is very limited and depends upon elementary computer teachers who seldom have time to provide support. There is virtually no implementation support at secondary schools.

### Technology Professional Development

* There is very little technology professional development, and what exists is mostly of the “how-to” variety.
* Teachers could benefit tremendously from professional development that aims to help them reform their pedagogy and create a more student-centered learning environment.
* A substantial barrier to any professional development is the current inability of teachers, principals and district staff to agree on a viable schedule for professional development that meets the needs of all concerned. The general lack of effective communication between parties only exacerbates this situation.

### Technology Literacy and Standards

* Elementary students participate in what is essentially a stand-alone “technology literacy” curriculum that is targeted at their being able to pass a standard technology literacy test.
* There is little evidence that Sample District students are addressing the current (2007) NETS Student Standards as these standards mainly focus on the use of technology to foster 21st century learning skills within a student-centered learning environment.

## Instructional Technology Priorities/Needs

The evaluators offered a range of recommendations for strengthening teachers’ vision for how technology can support learning, and for developing leadership strategies to promote effective integration at all levels. Consistent with the ISTE-NETS standards, these recommendations emphasize the use of technology *by students* in ways that support inquiry learning and project-based instruction. Sample District’s efforts to this end must include equipping teachers with the knowledge and pedagogical skills necessary to effectively address curriculum goals in fundamentally different ways. A comprehensive curriculum map, ongoing, job-embedded professional development, and leadership policies at the building level will help to begin the transformation of schools into the technology-rich 21st Century learning environments described in the current research on best practice and set forth in the ISTE standards for teachers, administrators, and students.

### Technology Integration

For teachers to start integrating technology in ways that support what research says is “best practice”, there needs to be a shift in how teachers organize their instruction. Given the current practice of teacher-centered instruction, technology is not likely to have impacts beyond what is already occurring. No matter how much training is provided in their operation, the technology tools currently in use--particularly interactive whiteboards and lab-based computer literacy software--- are not likely to inspire a shift in pedagogy. There is nothing about simply having a Promethean board in the classroom that will make much of a difference in meaningful technology integration in Sample District schools. Rather, teachers need to buy into the pedagogical change first and then find the technology tools that support reformed instruction. If that were to happen (in that order), the evaluators suspect that most teachers would find that they already have the necessary technology tools at their disposal.

Therefore, the evaluators recommend that Sample District engage in a serious consideration of what research describes as best practice in the development of 21st century learning skills, and the role that technology can play within a curriculum that emphasizes such skill development. This will - as stated above - require a significant re-evaluation of current pedagogical practices in place in the majority of Sample District classrooms. As that re-evaluation occurs through curricular and pedagogically-focused professional development - first with administrators and then with teachers - a vision for technology can be cultivated.

The responsibility for organizing and maintaining a vision for technology’s role in a reformed pedagogy that teaches 21st century learning skills is one that rests with leadership at all levels. The opportunity for articulating this vision - and for showing how it connects to initiatives well beyond technology infrastructure - exists in the creation of the Strategic Technology plan. This plan should be the basis for developing policies and accountability structures which actively engage building administrators in supporting changes in teaching aimed at providing Sample District students with important 21st century learning skills.

### Technology Infrastructure, Access and Support

The evaluators recommend that Sample District schools continue to maintain the current technology infrastructure. This also implies the need to address deficiencies where they are seen to exist. A prime example of one of these deficiencies is the large amount of broken and uninstalled new equipment found in the High School. It is quite possible that when the new equipment has finally been installed, there will be no infrastructure deficiencies in the district.

As a bottom line, the evaluators recommend that Sample District not make any significant new technology purchases until the existing devices are actually installed and more progress is made in terms of developing the vision for technology integration that is discussed above. Right now, it is quite possible that the effort expended in purchasing equipment misdirects the attention that could be better put to developing an educational vision for how this equipment is best used.

In terms of technical support, the evaluators recommend that the district engage in information campaigns to help administrators understand the technical support systems and then to clarify those procedures among school staff. It appears that in many cases administrators themselves are unclear on support procedures and then only proceed to spread that lack of clarity among their staff. In this case, a top-down approach to creating and disseminating policy information might be successful.

Finally, in terms of integration support, the evaluators recommend that the computer teachers who are found in nearly every elementary school be charged with providing support to classroom teachers as those teachers work to weave meaningful technology experiences into the core/mainstream/classroom curriculum. Sample District elementary schools are indeed fortunate to have such qualified teachers present in their buildings and should do considerably more to leverage this resource. Of course, this can only happen if the computer teachers are relieved from the burden of conducting “computer class” as a stand-alone subject; and this can only happen when teachers and administrators develop a understanding of technology as truly integrated within a curriculum that emphasizes student-centered learning and the development of 21st century learning skills.

### Technology Professional Development

The evaluators recommend that Sample District teachers be provided with professional development related to reconceptualizing their pedagogical approaches and rethinking the role of 21st century learning skills within the curriculum. If such professional development existed, the evaluators believe that Sample District teachers would find natural connections to learn and make use of technology devices within their practice.

A key component of the District’s instructional technology effort should be work which maps technology and 21st Century learning skills onto the District’s existing Content Standards/Frameworks. This is the so-called “Curriculum Mapping” project that the district and started in 2008. The evaluators recommend that this effort be resumed[[1]](#footnote-1) and that it initially focus on developing a mapping of relevant technologies and student technology skills on grade-level strands related to just one Standards subject area. This work can be expanded in subsequent years to ultimately encompass all four standards areas (Language Arts, Math, Science and Reading). District and representative school-based staff should be included in this mapping work which would result in a “technology-infused curriculum map” upon which further professional development at the district and building level could be based.

When professional development is made available to teachers, careful attention must be paid to offering flexibility in the times and locations of the courses offered. In this regard, improvement could be made in terms of how district administration adjusts the professional development schedule to meet the demands rising from schools. At present, the perception in schools is that district administration pursues its own professional development agenda that is not entirely responsive to teacher and building needs.

Finally, the evaluators recommend that the district consider adjusting the school calendar to better accommodate teacher learning needs. The school year could be lengthened to accommodate the large number of holidays and teacher professional days.

### Technology Literacy

The recommendations for technology literacy are consistent with the recommendations for the other three focus areas of this evaluation; namely, that Sample District teachers develop the vision for how technology supports the development of 21st century learning skills within the context of the core curriculum. Key to that vision is the creation of a student-centered pedagogical approach that emphasizes student mastery of critical higher order thinking skills.

# 3. 2012 – 2015 Strategic Goals and Action Plans

## Strategic Goals

In overall support of Sample District’s vision for technology the district has established the following strategic instructional technology goals.

### Student and Teacher Skills

1. Sample District Public Schools will adopt and implement the ISTE NETS-S and NETS-T standards as a basic framework for how students and teachers use and manage technology within their educational experience
2. Sample District Public Schools will develop a framework/mapping aligned with NETS-S and the district’s curriculum framework that identifies a scope and sequence of student technology skills K-12.
3. Sample District Public Schools will emphasize - through a variety of curriculum-centered experiences at all levels - the use of technology to support student-centered learning.

### District Policies and Administration

1. Sample District Public Schools will establish and clearly communicate a vision for technology's role in transforming learning and teaching.
2. Sample District Public Schools will ensure equity of access to technology tools and resources for all teachers and students.
3. Sample District Public Schools will continue to support teachers with technology and pedagogical professional development – aligned with the NETS standards – through a flexible, multi-faceted, approach that addresses all levels of teacher skill and knowledge.

### Technology Infrastructure

1. Sample District Public Schools will ensure and support a consistent and reliable technological environment – based on educational need – for all students and teachers in all buildings.
2. Sample District Public Schools will develop and effectively implement a 1:1 environment for technology access that balances educational needs with the ability of the district to support and manage such an environment.
3. Sample District Public Schools will support data and learning management systems that ensure effective use and dissemination of learning and learner-related data to all relevant district constituencies.

## Action Plans

### Student and Teacher Skills

|  |
| --- |
| Goal 1: Sample District Public Schools will adopt and implement the ISTE NETS-S and NETS-T standards as a basic framework for how students and teachers use and manage technology within their educational experience |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible |
| 2012-2013 | Present results of initial curriculum review work to Sample District School Committee | Prior to March Tech PD at HS | Spring 2013 | None | Director of Technology  |
| 2012-2013 | Educate staff about the NETS-S and NETS-T standards, including develop a common language across district | Introduction at faculty meeting in Spring 2013, discussion in greater depth at March/May PD session HS; PD re: implementation in Fall 2013 | Fall/Winter 2013 | None | Principals (with support of ITC, media specialists) at each level, in each school  |
| 2013-2014 | Identify areas of strength and weakness relative to the standards; use this information to inform curriculum development | Spring 2013 either with or after educating staff | Ongoing during curriculum review cycles | None | Principals (with support of ITC, media specialists) at each level, in each school, with the help of department heads  |
| 2013-2014 | Communicate standards to Sample District High School students | Fall 2014 | Fall 2013 | Minimal, if any | High School Principal, Classroom teachers: add changes to syllabus, begin school year with discussion about tech's role in the course |

Continued…

|  |
| --- |
| Goal 1 (continued): Sample District Public Schools will adopt and implement the ISTE NETS-S and NETS-T standards as a basic framework for how students and teachers use and manage technology within their educational experience |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible |
| 2013-2014 | Communicate standards to Thurston Middle School students | Fall 2014 | Ongoing | Minimal, if any | Classroom teachers: add to department grade level syllabus, begin school year with discussion about technology's role in the course.  |
| 2013-2014 | Communicate standards to elementary students | Fall 2014 | Ongoing | Minimal, if any | Classroom teachers: preview how technology will be used throughout the school year in the grade level curriculum and communicate expectations and goals for technology use  |
| 2013-2014 | Communicate with families about the NETS-S Standards (see 'comment' in District Action Plan re: creating a communication plan for getting info out to families). | Fall 2013, after School Committee approval | Fall 2013 | Minimal, if any | Principals, via parental newsletters, Classroom Teachers at Curriculum Night  |

**Student and Teacher Skills**

|  |
| --- |
| Goal 2: Sample District Public Schools will develop a framework/mapping aligned with NETS-S and the district’s curriculum framework that identifies a scope and sequence of student technology skills K-12. |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible |
| 2012-2013 | Form a committee to identify and develop NETS-S curriculum | Immediately | Fall 2012 | None | Director of Technology |
| 2012-2013 | Investigate other districts who have mapped the NETS-S | Spring 2013 | End of summer, 2013 | Some | Curriculum development committee |
| 2013-2014 | Identify areas where NETS standards are already implemented. | Fall 2013 |  Winter 2013 |  None | Curriculum development committee with assistance from K-12 Directors, Dept. Heads, and building principals |
| 2013-2014 | Identify and revise units of study that are well-suited for explicit alignment to NETS standards. | Fall 2013 | Winter 2013 | None | Curriculum development committee with assistance from K-12 Directors, Dept. Heads, and building principals |
| 2013-2014 | Create a curriculum map that formally integrates NETS-S Profiles (benchmarks) , scaled from K-5, 6-8, 9-12 | Spring 2014 | End of summer, 2014 | Curriculum writing pay for teachers, other staff (similar to development pay for other disciplines) | Various |
| 2013-2014 | Present completed curriculum map to Ms. Parks, Assistant Superintendent |   | End of summer, 2014 | Curriculum writing pay for teachers, other staff (similar to development pay for other disciplines) | Curriculum development chair, Director of Technology |
| 2013-2014 | Upload curriculum map to Aspen's CL platform, made accessible to teachers | Fall 2014 | Fall 2014 | None | Curriculum development chair, Director of Technology |

**Student and Teacher Skills**

|  |
| --- |
| Goal 3: Sample District Public Schools will emphasize - through a variety of curriculum-centered experiences at all levels - the use of technology to support student-centered learning. |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible |
| 2014-2015 | Implementation of NETS-T and NETS-S standards. | Fall 2014 | Ongoing | None | Various  |
| 2014-2015 | Ensure and assess technology's use to promote critical thinking and problem solving skills. | Fall 2014 | Ongoing | None | Various  |
| 2013-2014 | Administer and analyze district-wide assessments that address NETS-S and use resulting data to inform teaching and learning. | Winter 2014 | Ongoing | None | Various  |
| 2013-2014 | Develop language--scaled from K-5, 6-8, 9-12-- to assess the students' ability to meet NETS-S standards. | Winter 2014 | Ongoing | None | Various  |
| 2014-2015 | Revise teacher growth rubrics and growth plans to reflect NETS-T standards and NETS-S standards for teachers and students respectively. | Winter 2013: HS and MSFall 2013: Elementary | Ongoing | None | Various  |

Continued…

|  |
| --- |
| Goal 3 (continued): Sample District Public Schools will emphasize - through a variety of curriculum-centered experiences at all levels - the use of technology to support student-centered learning. |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible |
| 2013-2014 | Ensure teachers and students have opportunities to communicate and collaborate with colleagues/peers using a variety of digital resources. | Winter 2013: HS and MSFall 2013: Elementary | Ongoing | None | Various  |
| 2013-2014 | Ensure teachers and students practice digital citizenship and responsibility associated with technology. | Winter 2013: HS and MSFall 2013: Elementary | Ongoing | None | Various  |
| Ongoing | Continuously and collectively assess the choice in technologies used to improve lessons/complete assignments as emerging technologies improve. | Ongoing | Ongoing | None | Teachers with support of ITCs, librarians and other colleagues  |

### District Policy and Administration

|  |
| --- |
| Goal 4: Sample District Public Schools will establish and clearly communicate a vision for technology's role in transforming learning and teaching. |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible |  Notes/Comments |
| 2012-2013 | Technology Review Committee develops vision statement and effective communication strategy for both internal and external audiences. | Oct., 2012 | Jan., 2013 |   | Technology Review Committee | Subject to periodic review |
| 2012-2013 | Adapt personal device policies and social media policies to reflect vision | ongoing | ongoing |   | Administrative Council |   |
| 2012-2013 | Use the budget process to articulate the district's educational technology plan. | Jan, 2013 | ongoing |   | Central Office |   |
| 2013-2014 | Ensure administrators use common language to describe vision in addressing teachers, students and parents | May 2013 | October 2014 |   | Administrative Council |   |
| 2013-2014 | Evaluate the instructional and curricular impact of transitioning to digital resources/texts | Sept. 2013 | June 2014 |   | Administrative Council, Department Heads/Coordinators |   |
| 2013-2014 | Ensure evaluators reiterate vision during goal setting (district, school, department, and individual educator) | May 2013 | ongoing |   | Evaluators |   |
| 2012-ongoing | Showcase examples of transformed teaching and learning (both for teachers and community) | ongoing | ongoing |   | Principals, ITCs, Teachers | Consider when planning PD calendar |
| 2012-ongoing | Use current communication tools (Facebook, Twitter, web site) to provide community with ongoing illustrations of the use of technology in classrooms. | ongoing | ongoing |   | Superintendent, Principals, ITCs, Teachers |   |

**District Policy and Administration (continued)**

|  |
| --- |
| Goal 5: Sample District Public Schools will ensure equity of access to technology tools and resources for all teachers and students. |
| Year | Action Item | State Date | End Date | Budget | Person Responsible |  Notes/Comments |
| 2012-2013 | Develop baseline criteria for personal learning devices at high school level | Sept., 2012 | Oct., 2012 |   | 1:1 Committee |   |
| 2013-2014 | Ensure that all students in grades 9-12 have 24/7 access to a school-issued Chromebook | July, 2012 | Sept., 2012 | 280000 | Director of Technology | Estimate about 25% higher cost for additional needs (ancillary devices, engraving, bags, etc...) |
| 2014-2015 | Ensure that all students in grades 6-8 have 1:1 access to a school-issued device | July, 2013 | Sept, 2013 | 165000 | Director of Technology | Estimate about 25% higher cost for additional needs (ancillary devices, engraving, bags, etc...) |
| 2013-2014 | Strategically increase access across elementary schools to instructional technology | July, 2013 | ongoing | ?? | Director of Technology |   |
| 2012-2013, 2013-2014 | Evaluate efficacy iPad pilot in primary grades; consider how to equalize access to tablets in grades K-2 classrooms if the pilot is deemed successful | Jan, 2013 | June, 2013 |   | Principals, Director of Technology, ITCs |   |
| 2012-2013 | Evaluate technology needs for departments/grade levels with specialized functions | Jan, 2013 | June, 2013 |   | Principals, Director of Technology |   |
| 2013-2014 | Ensure that all grade 3+ students have opportunities to use Google Apps account | Sept., 2013 | Jan, 2014 | Per student cost? | Principals |   |

**District Policy and Administration (continued)**

|  |
| --- |
| Goal 6: Sample District Public Schools will continue to support teachers with technology and pedagogical professional development – aligned with the NETS standards – through a flexible, multi-faceted, approach that addresses all levels of teacher skill and knowledge. |
| Year | Action Item | Start Date | End Date | Budget/Resources | Person Responsible  |
| 2013-2014 | Asses teachers' basic computer skills and vocabulary; provide timeline and expectations for achieving basic computer literacy | July, 2012 | Sept., 2013 |   | Asst. Superintendent  |
| 2013-2014 | Assess teachers' comfort and skill associated with NETS-T (rubric self assessment or survey) |   |   |   | Director of Technology  |
| 2013-2014 | Develop and promote opportunities for sharing and collaboration among teachers, both face-to-face and online |   |   | Time | Principals  |
|   | Encourage all staff to develop personal learning networks (PLNs) |   |   |   | Director of Technology, ITCs  |
| 2013-2014 | Encourage teachers to utilize just-in-time, embedded PD through collaboration with ITCs and Library Media Specialists in planning lessons |   |   |   | ITCs  |
| 2013-2014 ?? | Provide robust technology orientation for teachers new to the district |   |   | ?? | Director of Technology, Asst. Superintendent  |
| 2013-2014 | Equalize access to ITCs across levels by creating combined ITCteacher positions at the HS, in both math/science and humanities. |   |   | 55000 |    |
|   | Model the effective use of instructional technology during workshops, faculty meetings, etc. |   |   |   | Principals, ITCs  |

### Infrastructure

|  |
| --- |
| Goal 7: Sample District Public Schools will ensure and support a consistent and reliable technological environment – based on educational need – for all students and teachers in all buildings. |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible  |
| 2012-13 | Develop a system of evaluating and selecting technology resources. | 2012-13 | 2013-14 |   | Technology Department and relevant staff  |
|   | Allocate technology staff to support educational needs across all levels | ongoing | ongoing |   | Director of Technology  |
| 2012-13 | Ensure adequate capacity (bandwidth, wireless, etc.) across the district to maintain optimal levels of productivity | ongoing | ongoing |   | Technology Department  |
| 2012-13 | Develop a sensible and fiscally responsible plan to sustain adequate infrastructure needs over time | ongoing | ongoing |   | Central office staff  |
| 2012-13 | Incorporate content filter that complies with state and national regulations without compromising the teaching and learning experience | ongoing | ongoing |   | Director of Technology and network manager  |
|  2012-16 | Fully fund and procure resources to implement NETS-T (i.e. mounted projector with remote, document camera, teacher station, equitable student access) in every classroom across the district | ongoing | ongoing |   |  Central office staff  |
| 2012-13 | Seamless integration of technology resources (single sign on) Google apps, courses, student data (Address browser compatibility issues w/ Aspen & Google Apps) | 2012-13 | 2013-14 |   | Director of Technology, Network Manager  |

**Infrastructure (continued)**

|  |
| --- |
| Goal 8: Sample District Public Schools will develop and effectively implement a 1:1 environment for technology access that balances educational needs with the ability of the district to support and manage such an environment. |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible  |
| 2013-14 | Develop a plan to implement a 1:1 environment at the middle school | Fall 2013 | Spring 2014 |   | Middle School 1:1 Task Force |
| 2014-15 | Based on the finding of the task force, implement 1:1 initiative at the middle school | Fall 2014 | ongoing |   | Middle School 1:1 Task Force |
| 2012-13 | Evaluate options to increase student technology access at elementary schools (e.g. more carts, tablets, or eventually 1-1). | Fall 2012 | Spring 2013 |   | Director of Technology, Elem ITC's, teachers, principals  |
| 2013-14 | Implement 1:1 initiative at the high school | Spring 2012 | Fall 2013 |   | High School 1:1 Task Force  |
| 2013-14 | Continually evaluate and revise hardware, software, and platform choices for 1:1 initiatives | ongoing | ongoing |   | Technology Dept, Principals, Teachers  |

**Infrastructure (continued)**

|  |
| --- |
| Goal 9: Sample District Public Schools will support data and learning management systems that ensure effective use and dissemination of learning and learner-related data to all relevant district constituencies. |
| Year | Action Item | Start Date | End Date | Budget | Person Responsible  |
|  2013-14 | Create a uniform interface for students and staff to access learning resources |  Spring 2013 | Spring 2014 |   |  Technology staff |
|  2013-2014 | Implement a uniform, reliable, and accessible storage system |  Fall 2013 | Spring 2014 |   | Director of Technology, Learning, and Innovation, Network Manager, Lead Technology Support Specialist  |
| ongoing | Establish seamless integration with student information system |  ongoing |  ongoing |   |  Director of Technology, Learning, and Innovation and Town IT director  |

# 4. Evaluation and Assessment for Technology

## Evaluation Design

Sample District is committed to conducting a systemic, rigorous, and highly formative evaluation process that aims to measure the impact that this Strategic Technology Plan is having in schools and classrooms across the Sample District. This evaluation goes well beyond accounting for technology infrastructure and reporting quantitative data on students, teachers, and administrators achieving basic technology literacy benchmarks. In addition to such basic data, the district’s technology plan evaluation effort will report on the qualitative impact of technology on teaching and learning. Through such data, and the formative reflection on progress that this will support, Sample District will be in a position to monitor the impact of Territorial and district technology infrastructure, technology policy, and technology professional development initiatives. This will allow for responsive and frequent fine-tuning of efforts; and ultimately a much greater degree of accountability for the use of resources to support instructional technology.

Through this evaluation plan, Sample District will apply a uniform data collection process across the district, using a standardized set of evaluation tools that have been specifically mapped to the plan’s goals and objectives. These tools include teacher, student, and parent online survey instruments, classroom observation protocol, and interview/focus group questions for teachers and administrators. Sample District will initiate a data collection effort – managed by outside, independent, evaluators – in the spring of each school year that collects data at the classroom level in every school in the district. Aggregated annually at the district level, information collected in this manner will create a uniform dataset to be used to determine the district’s progress toward meeting the indicators in the technology plan. Further, school level data can be used by schools as a driver for instructional technology goals in their annual School Improvement Plans.

## Evaluation and Technology Plan Updates: 2012 – 2015

The following table describes the main activities associated with technology plan evaluation and technology plan updating between Fall 2012 and Fall 2015.

| **Date** | **Activity** | **Responsibility** | **Product/Outcome** |
| --- | --- | --- | --- |
| 2012 | Fall(October/November) | Review data collection instruments | Outside EvaluatorDistrict Staff | Data collection instruments properly mapped to technology plan indicators and other Sample District initiatives as necessary |
| 2013 | Spring(March) | Data Review (2012 data) with schools | District StaffSchool Staff | Updated technology-related goals/actions for April 2013 School Improvement Plans |
| Spring (May/June) | Data Collection – Surveys, Focus Groups, Observations | Outside Evaluator |  |
| Summer | Data Analysis and Reporting | Outside EvaluatorDistrict StaffSchool Staff | Data reports and data review meeting with District and School Staff |
| Fall | Technology Plan Update | District StaffSchool Staff | Updated District Plan and Updated School Technology Plans |
| 2014 | Spring(March) | Data Review (2013 data) with schools | District StaffSchool Staff | Updated technology-related goals/actions for April, 2014 School Improvement Plans |
| Spring(May/June) | Data Collection – Surveys, Focus Groups, Observations | Outside Evaluator |  |
| Summer | Data Analysis and Reporting | Outside EvaluatorDistrict StaffSchool Staff | Data reports and data review meeting with District and School Staff |
| Fall | Technology Plan Update | District StaffSchool Staff | Updated District Plan and Updated School Technology Plans |
| 2015 | Spring(March) | Data Review (2014 data) with schools | District StaffSchool Staff | Updated technology-related goals/actions for April, 2015 School Improvement Plans |
| Spring(May/June) | Data Collection – Surveys, Focus Groups, Observations | Outside Evaluator |  |
| 2015 | Summer | Data Analysis and Reporting | Outside EvaluatorDistrict StaffSchool Staff | Data reports and data review meeting with district and school staff |
| Fall | Technology Plan Revision | District StaffSchool Staff | Revised District Plan (2016 – 2019) and Updated School Technology Plans |

# Budget

This section details the technology budget, by plan year.

# Inventory

This section provides a detailed technology device inventory, as required by E-Rate.

# Appendix I: Professional Development Principles

The following represent some of the techniques Sample District has adopted for the delivery of professional development to promote more effective training:

1. Professional development support must be available any time the teacher is ready for it.
2. Teachers working together to support each other’s implementation of methods is more successful.
3. Everyone always learns more when they are teaching. Invite as many teachers who are comfortable with it to be professional developers and mentors within their school among their colleagues.
4. Professional development events should be an example of how teachers can apply the methods in their teaching.
5. Allow technology and information literacy tools and processes to be incorporated naturally into what a teacher is already comfortable doing in order to build her or his capacity by leveraging what she or he can already do.

# Appendix II: Curriculum Mapping Plan

Sample District recognizes the need for a concrete set of technology integration exemplars that have been mapped to the state’s curriculum standards. While there have been some outstanding examples of technology-infused curriculum units created by district teachers, there has never been a systemic effort made to map student technology use to the core curriculum that is taught in every Sample District classroom. Rather, technology integration has become the job of individuals other than the classroom teacher and often at the classroom level results only in teacher use of technology tools. This, as has been pointed out in the district’s evaluation, has resulted in minimal student use of technology for learning and subsequently very marginal advancement of 21st Century Learning skills among district students. To address these problems, Sample District will advance the work of developing a “Curriculum Map” which provides teachers across all grade levels (and ultimately, all core subject areas) with specific exemplars – actual curriculum units that they can teach – to support student use of technology for content and 21st Century learning.

The examples in this curriculum map will go several steps beyond the stand-alone technology “applications” that come with existing textbooks as well as solely teacher-focused uses of technology. Key design features of these exemplars would be:

* The exemplars must exist at the intersection of state content standards and nationally-recognized technology standards, specifically the ISTE NETS for Students (2008 revision, see the Appendix – Standards to this plan). The exemplars must show how teachers can implement curriculum based activities that utilize integrated technology that supports the development of curriculum and technology skills.
* The exemplars must focus on student – not teacher - use of technology tools.
* The exemplars must drive the student use of technology tools in ways supportive of 21st Century learning.
* The exemplars need to be sufficiently focused on curriculum standards so that teachers can readily identify which curriculum activities can be brought to bear on particular curriculum challenges and framework strands experienced throughout the school year.
* The exemplars should be teacher-created by representative district teachers so that they represent a realistic take on how district teachers address existing curriculum frameworks.

Once created, the exemplars will constitute a “technology curriculum map”. In its first year, it is expected that the map will address just a single curriculum framework as such a focus will benefit the attention which must be given to the creation effort. But as soon as this first framework is addressed, work will continue to expand the mapping to the state’s three other frameworks. The goal will be to have all frameworks mapped to technology activities by the end of the 2014-2015 school year.

The technology curriculum map will serve the professional development goals of the technology plan in several ways and is thus referenced through the action plans of the recently updated school improvement plans. In summary, these connections are:

* The curriculum map will be the basis for Sample-District-supported professional development on technology integration. This professional development will focus on teaching school and district-based technology integration specialists about the mapped curriculum units, how to support their teachers in teaching the units, and how to work with teachers to expand the student use of technology beyond the mapped units (to other framework strands and learning activities). Sample District will offer professional development in each school on the above topics and will work with districts to continue this training within schools throughout the school year.
* The District’s development of the curriculum map is in and of itself a professional development effort. The process of developing the map (see below) will allow district staff from all areas related to student support to develop a sharper focus and vision as to how 21st Century learning can be achieved within the context of curriculum frameworks and technology standards. Continuing work to create this map for all four content standard areas will deepen and expand this understanding.
* Creation of the curriculum map helps address the findings and recommendations in the district’s December 2011 Instructional Technology evaluation. In particular, the curriculum map will help drive the student use of technology across the curriculum and the use of technology tools for 21st Century learning.

# Appendix III: Standards

## NETS-S (Students)

1. Creativity and Innovation -- Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

a. apply existing knowledge to generate new ideas, products, or processes.

b. create original works as a means of personal or group expression.

c. use models and simulations to explore complex systems and issues.

d. identify trends and forecast possibilities.

2. Communication and Collaboration -- Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.

b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.

c. develop cultural understanding and global awareness by engaging with learners of other cultures.

d. contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency -- Students apply digital tools to gather, evaluate, and use information. Students:

a. plan strategies to guide inquiry.

b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.

d. process data and report results.

4. Critical Thinking, Problem Solving, and Decision Making -- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

a. identify and define authentic problems and significant questions for investigation.

b. plan and manage activities to develop a solution or complete a project.

c. collect and analyze data to identify solutions and/or make informed decisions.

d. use multiple processes and diverse perspectives to explore alternative solutions.

5. Digital Citizenship -- Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

a. advocate and practice safe, legal, and responsible use of information and technology.

b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.

c. demonstrate personal responsibility for lifelong learning.

d. exhibit leadership for digital citizenship.

6. Technology Operations and Concepts -- Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

a. understand and use technology systems.

b. select and use applications effectively and productively.

c. troubleshoot systems and applications.

d. transfer current knowledge to learning of new technologies.

## NETS-T (Teachers)

1. Facilitate and Inspire Student Learning and Creativity -- Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments. Teachers:

a. promote, support, and model creative and innovative thinking and inventiveness

b. engage students in exploring real-world issues and solving authentic problems using digital tools and resources

c. promote student reflection using collaborative tools to reveal and clarify students’ conceptual understanding and thinking, planning, and creative processes

d. model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

2. Design and Develop Digital-Age Learning Experiences and Assessments -- Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS•S. Teachers:

a. design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity

b. develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress

c. customize and personalize learning activities to address students’ diverse learning styles, working strategies, and abilities using digital tools and resources

d. provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

3. Model Digital-Age Work and Learning -- Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society. Teachers:

a. demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations

b. collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation

c. communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats

d. model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning

4. Promote and Model Digital Citizenship and Responsibility -- Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices. Teachers:

a. advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources

b. address the diverse needs of all learners by using learner-centered strategies and providing equitable access to appropriate digital tools and resources

c. promote and model digital etiquette and responsible social interactions related to the use of technology and information d. develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital-age communication and collaboration tools

5. Engage in Professional Growth and Leadership -- Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. Teachers:

a. participate in local and global learning communities to explore creative applications of technology to improve student learning

b. exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others

c. evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning

d. contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community

## NETS-A (Administrators)

1. Visionary Leadership. Educational Administrators inspire and lead development and implementation of a shared vision for comprehensive integration of technology to promote excellence and support transformation throughout the organization. Educational Administrators:

a. inspire and facilitate among all stakeholders a shared vision of purposeful change that maximizes use of digital-age resources to meet and exceed learning goals, support effective instructional practice, and maximize performance of district and school leaders

b. engage in an ongoing process to develop, implement, and communicate technology-infused strategic plans aligned with a shared vision c. advocate on local, state, and national levels for policies, programs, and funding to support implementation of a technology-infused vision and strategic plan

2. Digital-Age Learning Culture. Educational Administrators create, promote, and sustain a dynamic, digital-age learning culture that provides a rigorous, relevant, and engaging education for all students. Educational Administrators:

a. ensure instructional innovation focused on continuous improvement of digital-age learning

b. model and promote the frequent and effective use of technology for learning

c. provide learner-centered environments equipped with technology and learning resources to meet the individual, diverse needs of all learners

d. ensure effective practice in the study of technology and its infusion across the curriculum

e. promote and participate in local, national, and global learning communities that stimulate innovation, creativity, and digital-age collaboration

3. Excellence in Professional Practice. Educational Administrators promote an environment of professional learning and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and digital resources. Educational Administrators:

a. allocate time, resources, and access to ensure ongoing professional growth in technology fluency and integration

b. facilitate and participate in learning communities that stimulate, nurture, and support administrators, faculty, and staff in the study and use of technology

c. promote and model effective communication and collaboration among stakeholders using digital-age tools

d. stay abreast of educational research and emerging trends regarding effective use of technology and encourage evaluation of new technologies for their potential to improve student learning

4. Systemic Improvement. Educational Administrators provide digital-age leadership and management to continuously improve the organization through the effective use of information and technology resources. Educational Administrators:

a. lead purposeful change to maximize the achievement of learning goals through the appropriate use of technology and media-rich resources

b. collaborate to establish metrics, collect and analyze data, interpret results, and share findings to improve staff performance and student learning

c. recruit and retain highly competent personnel who use technology creatively and proficiently to advance academic and operational goals

d. establish and leverage strategic partnerships to support systemic improvement e. establish and maintain a robust infrastructure for technology including integrated, interoperable technology systems to support management, operations, teaching, and learning

5. Digital Citizenship. Educational Administrators model and facilitate understanding of social, ethical, and legal issues and responsibilities related to an evolving digital culture. Educational Administrators:

a. ensure equitable access to appropriate digital tools and resources to meet the needs of all learners

b. promote, model, and establish policies for safe, legal, and ethical use of digital information and technology

c. promote and model responsible social interactions related to the use of technology and information

d. model and facilitate the development of a shared cultural understanding and involvement in global issues through the use of contemporary communication and collaboration tools

1. The mapping effort was started in the Summer of 2008 but did not continue into the 2009-2010 school year due to lack of funding and shifting district priorities. Nevertheless, the evaluators understand that Sample District remains committed to this initiative, and that a resumption of this work is highly desirable. [↑](#footnote-ref-1)