



# STATE OF CONNECTICUT

DEPARTMENT OF EDUCATION



June 4, 2012

Brookfield Public School District;

This letter serves as official notification that your district's Technology Plan for the 2012-2015 period has been approved and filed with the Connecticut State Department of Education. Your Technology Plan meets the standards and criteria required by the Connecticut State Department of Education.

As the certified Technology Plan Approver by the Universal Service Administrative Company for the Schools and Libraries Program, the Connecticut State Department of Education certifies that your plan meets the four required elements for the E-Rate Funding for the period of 2012-2015. Please keep this letter as official documentation for the Schools and Libraries Division (SLD).

Thank you for submitting this plan to the Connecticut State Department of Education. We appreciate you time and effort that went into this project and hope that you will see benefits during the coming years.

Sincerely;

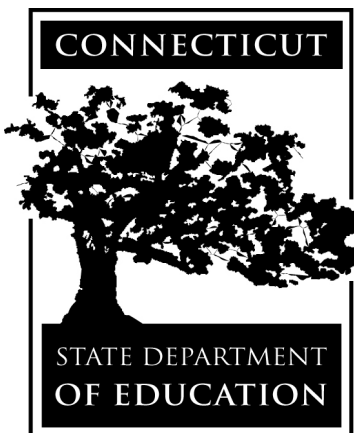
A handwritten signature in black ink, appearing to read "M. P. Rose".

Martin P. Rose  
Information Technology Bureau Chief  
State Department of Education  
165 Capitol Ave  
Hartford CT, 06106

**CONNECTICUT STATE DEPARTMENT OF EDUCATION**

**EDUCATIONAL TECHNOLOGY PLAN TEMPLATE**

**July 1, 2012 – June 30, 2015**



ED 616

Section 254(h)(1)(B), of the Telecommunications Act of 1996, and FCC Order 97-157, Paragraph 573  
Elementary and Secondary Education Act (ESEA) 20 U.S.C. § 6777

Published: August 2011  
Submissions to RESCs for review due by March 9, 2012  
Submission to CSDE due June 15, 2012

# CONNECTICUT STATE DEPARTMENT OF EDUCATION

**Stefan Pryor**  
**Commissioner of Education**

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## EDUCATIONAL TECHNOLOGY PLAN APPROVAL PROCESS

The need for careful educational technology planning is as important as ever. The CSDE and RESC Alliance have updated the technology plan template to reflect current school district needs and more closely align it to the National Technology Plan. Please read the technology plan process and refer to the evaluation section that lists some of the elements of an exemplary plan. Your RESC contact is listed within the template and is ready to help you plan if you require assistance.

1. **Technology Plan:** Complete the plan using the template provided.
2. **RESC Review\*:** Send a draft of the completed plan as an email attachment to the RESC staff listed below for your RESC region. This person will be your contact for an initial review and will facilitate the process. Please submit your initial draft by March 9, 2012 using the subject line “Technology Plan Submission”
3. **Revisions:** Your RESC contact will review and provide recommendations. You must then complete these revisions by May 15, 2012.
4. **Superintendent/Director signature:** Your plan needs to be signed by your superintendent or director on the three signature lines listed below.
  - a. Technology Plan Preparation Check-Off Page
  - b. LEA Federal Grant Program Compliance Form
  - c. Children’s Internet Protection Act (CIPA) Certification
5. **Board of Education Approval:** Submit the plan to your local board for approval.
6. **Final Approval:** Send the final copy, signed and board approved to your RESC contact. Send one (1) hard copy and an electronic file on CD before June 15, 2012.
7. **Final Check:** The plan will be to be initialed by the RESC contact and forwarded to CSDE.
8. **Certification:** Upon review and approval by the CSDE, a letter of state certification will be sent by the CSDE to the LEA superintendent/director.


*\* The RESC reviewer’s task is not to evaluate your technology plan but to check it for completeness and alignment with the template’s requirements.*

RESC Region	Staff	Phone	Address	Email
ACES	Howard Gunther	203-407-4416	ACES 205 Skiff Street Hamden, CT 06517	<a href="mailto:hgunther@aces.org">hgunther@aces.org</a>
CES	Esther Bobowick	203-365-8883	CES 40 Lindeman Drive Trumbull, CT 06611	<a href="mailto:bobowice@ces.k12.ct.us">bobowice@ces.k12.ct.us</a>
CREC	Doug Casey	860-524-4092	CREC 111 Charter Oak Avenue Hartford, CT 06106	<a href="mailto:dcasey@crec.org">dcasey@crec.org</a>
EASTCONN	Jane Cook	860-455-0707	EASTCONN 376 Hartford Turnpike Hampton, CT 06247	<a href="mailto:jcook@eastconn.org">jcook@eastconn.org</a>
Education Connection	Jonathan Costa	860-567-0863	Ed Connection 355 Goshen Road	<a href="mailto:costa@educationconnection.org">costa@educationconnection.org</a>

			Litchfield, CT 06759	
LEARN	Verna Sodano-Richards	860-434-4800 ext. 367	LEARN 44 Hatchetts Hill Road Old Lyme, CT 06371	<a href="mailto:vsodano@learn.k12.ct.us">vsodano@learn.k12.ct.us</a>

## Cover Page

EDUCATIONAL TECHNOLOGY PLAN – July 1, 2012-June 30, 2015

District/Agency:	Brookfield	
LEA Code:	018	
Technology Plan Contact:	Arthur Colley	
Phone:	203-775-7629	
Fax:	203-740-9008	
Email:	colleya@brookfieldps.org	
Address:	100 Pocono Road, Brookfield, CT 06804	
Name of Superintendent or Director:	Anthony J. Bivona	
Email:	bivonat@brookfieldps.org	
Signature of Superintendent or Director:		Date: 3/8/2012
Date Submitted to Board of Education:	3/8/2012	
Date Approved by Board of Education:	3/8/2012	

For RESC/SDE Use Only:

RESC Regional Reviewer:		Date:
RESC Recommendation for Approval:	Yes / No / Conditional	Date:
CSDE Authorization:		Date:

## Technology Plan Preparation Check-Off Page

The submitted plan has the following:

- √ Cover Page
- √ Technology Plan Preparation Check-Off Page
- √ LEA Federal Grant Program Compliance Form
- √ LEA Profile
- √ Technology Planning Committee
- √ Vision Statement
- √ Needs Assessment
- √ Goal 1
- √ Goal 2
- √ Goal 3
- √ Goal 4
- √ Goal 5
- √ Children's Internet Protection Act (CIPA) Certification
- √ Optional Reporting\*

*\* The LEA is encouraged to complete a technology funding source list and budget to submit with the technology plan.*



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Signature of Authorized LEA Agent

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Date

# Local Education Agency (LEA) Federal Grant Program Compliance Form

**LEA submitting this plan.**

*Developing a comprehensive technology plan based on the educational goals of the school system will ensure that the most appropriate technologies are effectively infused into your instructional and/or administrative programs. Thorough planning also ensures that all parties have equitable access and achieve the greatest benefit from routine use of educational technology. The comprehensive technology plan should demonstrate clear targets for technology use, spell out desired goals for learners, create visions for future directions, build "buy-in" from stakeholders, and demonstrate to those who might provide funding that a district or charter holder is ready to act.*

*School districts, consortia or charter schools (LEAs) who apply for technology funding through any Federal grant program are required to have developed a comprehensive, three-year plan, which outlines how the agency intends to utilize and integrate educational technology.*

The applying agency (check all that apply)

is compliant with the provisions of the Children’s Internet Protection Act (CIPA) [20 U.S.C. § 6777]  
\_\_\_\_\_

\_\_\_\_\_ will be CIPA compliant by this date. \_\_\_\_\_

has applied for E-Rate Funding.  
\_\_\_\_\_

The LEA’s comprehensive technology plan must be approved by the local board of education.

Date the plan was approved: \_\_\_\_\_

**OR**

Date the plan is to be submitted for board approval: \_\_\_\_\_

**Certified by:**

\_\_\_\_\_  
Signature of Superintendent or Director

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Superintendent or Director



## LEA Profile

LEA NAME: Brookfield Public Schools

This information should provide a “snapshot” of your district and help planners and reviewers to understand areas of need. This information will also assist the CSDE to establish priorities in the provision of resources to districts. The CSDE is particularly interested in the capability that each LEA has to access resources that will be placed onto the Connecticut Education Network (CEN). The new questions about technological literacy and professional development are asked as a result of additional federal reporting requirements.

### *Technology Literacy*

Questions	Your District's Numbers
How many Grade 8 students were evaluated for technological literacy, based on your district's standards, during the 2010-11 school year?	212
Based on that evaluation, how many of those students were considered technologically literate?	212
How many hours of technology related professional development were offered to certified educators in 2010 -11? (Include workshop hours that are offered to all of your educators-both teachers and administrators. These sessions may be online and may include full-day or partial-day sessions provided by RESC personnel. Although both mentoring and coaching are considered very effective methods of offering pd, do not include any of those hours.)	93
How many hours of technology related professional development were offered to administrators in 2010-11? (Count only those pd hours offered specifically for administrators.)	10
What fraction of your certified staff in Grades K-8 does your district consider technologically literate? (Do not reduce the fraction to lowest terms; the fraction's denominator should reflect the actual number of professional K-8 staff. For example, if out of 120 certified staff, 110 are considered technologically literate-the answer would be 110/120. )	114/152
What fraction of your certified staff in Grades 9-12 does your district consider technologically literate? (Do not reduce the fraction to lowest term. The fraction's denominator should reflect the actual number of professional 9-12 staff.)	60/73

### *Policies*

How often are your Acceptable Use Policy and other technology-related policies updated (Please check one below)?

Every year  Every other year  At least every three years  Other: \_\_\_\_\_

Insert a link to your district's AUP below if it is stored on the Web:

<http://www.brookfield.k12.ct.us/file/5182/download>

## ***Online Assessments***

When filling out the table below, please consider the following conditions:

- the number and percentage of each grade level of students that can have high-speed internet access at the same time;
- that students are grouped in clusters of no more than thirty and no less than ten; and
- that students remain in their own school.

Maximum number of Grade 4 students who could be accommodated under the above conditions.	100
Percentage of Grade 4 students who could be accommodated under the above conditions (number accommodated/total number of Grade 4 students).	58%
Maximum number of Grade 6 students who could be accommodated under the above conditions.	125
Percentage of Grade 6 students who could be accommodated under the above conditions (number accommodated/total number of Grade 6 students).	60%
Maximum number of Grade 8 students who could be accommodated under these conditions.	125
Percentage of Grade 8 students who could be accommodated under the above conditions (number accommodated/total number of Grade 8 students).	59%
Maximum number of Grade 10 students who could be accommodated under the above conditions.	237
Percentage of Grade 10 students who could be accommodated under the above conditions (number accommodated/total number of Grade 10 students).	100%

## TECHNOLOGY PLANNING COMMITTEE

The Technology Planning Committee should represent all stakeholders. Development of the technology plan and implementation of the plan should enable parents, educators, students and community members to benefit from the investment in technology and all should have representation on the committee.

Member	Title	Constituency Represented
Arthur Colley	Director of Business and Technology Operations	District
Dr. Genie Slone	Assistant Superintendent	District
Tracy Tishion	Technology Resource Teacher	BHS, WMS, HHES, CES
Joyce Zaldo	Library Media Specialist	CES
Joe Palumbo	Principal	BHS
Deane Renda	Principal	WMS
Mary Rose Dymond	Principal	HHES
Carrie Kilian	Principal	CES
Maureen FitzPatrick	Library Media Specialist	HHES
Allen Brosious	Library Media Specialist	WMS
Denise Walsh	Technology Staff	District, Parent
Kathy Colavito	Technology Staff	District, Parent

### The Committee must:

- *write a description of the technology committee's role in developing, implementing and evaluating the technology plan. This description should include how committee members were selected and the role each is expected to play. Tentative plans for scheduling meetings for the next school year should also be included;*
- *describe the evaluation strategies (e.g., interviews, questionnaires, classroom observations, teacher-driven action research projects, analysis of student products or scores) that will be used to provide the data needed to address your evaluation questions;*
- create the LEA's technology vision statement; and
- develop a technology needs assessment.

## OVERVIEW

The Brookfield Board Of Education formed a Technology Advisory Committee in 1993 comprised of educational staff members from various grade levels and disciplines, members of the Board of Education, and town residents to develop a plan to increase student learning through the integration and coordination of technology in the Brookfield Public Schools. By 1994, the Technology Advisory Committee recommended an investment of time and money to obtain a district-wide faculty use survey, an inventory and needs assessment, a cost estimate of hardware and infrastructure, and to hire a Director of Business and Technology Operations. In 1995, the Board of Education provisionally accepted a Technology Plan. In 1996, a committee of teachers and local community experts convened to revise the plan and align it to the guidelines set by the state. That committee worked from spring until fall when a draft was brought to some community members for their comments. Their critique formed the basis for changes leading to the final draft which was approved by the Board of Education in December 1996. This document has been revised several times to reflect the transition of technology in the Brookfield Public Schools. Most recently, a committee of students, staff, community members, and administrators formed to write student and staff technology competencies and begin a Professional Development plan.

The purpose of Brookfield's comprehensive technology plan is to improve student learning by providing technology that can be accessed and used by all members of the school community. The Technology Plan details the goals and actions needed to enhance student learning through an integration of technology with curriculum and instruction, full funding and implementation of the Technology Learning Environments, professional development, and community awareness and education. Goals and action plans have been designed as a guide for the Brookfield staff to assist them with the integration of multiple technologies in the appropriate program areas across the school district. In addition, the plans provide for access to technology by all members of the community. Each action plan includes objectives, responsible persons or groups, benchmarks and timelines. The progress of the implementation of the technology plan will be monitored using these action plans.

Technology must be integrated into all areas of the curriculum to achieve its full promise. A technology rich learning environment will enable all students to reach their potential, to develop skills required by the workforce, and to be responsible citizens and lifelong learners. To this end, Brookfield's Technology Plan calls for the replication of Technology Learning Environments (TLE) at each of the district's four schools and at the Alternative School. The TLEs will bring technology to students in their classrooms as well as provide instructional support in all media centers. The TLEs in every school will have the same core technology and a common baseline of software. Replicating one model at each school provides equitable access and equitable distribution of resources. During the 2007-2008 school year, a subcommittee, composed of library media specialists, the technology resource teacher, and classroom teachers created the Brookfield Information and Technology Literacy Framework (ITLF). This framework is used by each curriculum area to infuse technology into their units.

Continuing to assist teachers in the use of technology in the classroom may be the most important step to assuring maximum impact. The professional development design of the Technology Plan illustrates Brookfield's commitment to increasing the skills and knowledge of all staff to fully integrate technology into instruction and into the operation of the schools. Providing interactive

whiteboard technology was the focus during 2008-2009. This technology continues to be used in classrooms throughout the district. Addressing growing portability between home and school, and at the same time maximizing software dollars, has led the committee to explore and begin using open source and Web 2.0 applications.

During the 2010-2011 school year, the district adopted the use of Google Apps as the platform for communication and productivity tools. The library media centers began using Opals open source management software. Teachers are transitioning to using web based tools and resources with their students. Staff, students, and the community now have access to the WIFI district wide. In the 2011-2012 school year, iPads were provided to all ninth grade students and teachers.

A subcommittee of the District Technology committee meets quarterly each year to monitor and discuss the district's progress. The committee also has input into the composition of the next year's budget plan. Any projects that impact the majority of the staff are brought forth to this committee to discuss implementation and roll out. This committee has been crucial to the success of technology in Brookfield. It is the continued participation in this group that will promote progress in the Brookfield Public School System.

## **VISION STATEMENT**

### **A VISION OF TECHNOLOGY IN BROOKFIELD SCHOOLS**

All members of the Brookfield Public School education community benefit from the use and integration of technology within the schools. As a result of the use of technology, all students have increased capacity to actively participate in the learning process, solve problems, and become lifelong learners and contributing members of a global community.

Brookfield students will face significantly different and more complex challenges in the 21st century than students have in the past. The nature of the information age and our rapidly changing global economy demand higher level thinking skills, and knowledge of information retrieval, science, math, and communications. The society of tomorrow will demand that our students are critical communicators. The society of tomorrow will demand that our students are critical thinkers and problem solvers. In addition, our students will need to engage in learning practices that lead to new ways of thinking, understanding and constructing knowledge and communication results. The effective integration of technology in our schools will provide the learning environment that will assist students in attaining these higher level skills and behaviors. In both instructional and administrative settings, the appropriate selection and configuration of software and hardware resources will enhance the quality of the teaching/learning process and the management of related information.

Technology will be seamlessly integrated into all aspects of every student's educational experience. In this way, students will engage and interact with the tools and resources of the 21st century. Technology has the power to change teaching and learning. It provides the teacher with the opportunity to guide a child's learning and exploration while addressing different learning styles and individualizing instruction. With well-planned activities, the students will develop higher level thinking skills as they are asked to look critically at information to evaluate its usefulness. With the

availability of information, students can work purposefully to solve real life problems. Teachers and staff members will have the tools to go beyond the walls of the school to gather resources and information and then use available multimedia tools to enhance their professional presentations to students.

Technology will encourage excellence in our schools by maintaining a positive relationship through communication with parents, employers and community members. A key element to this communication between home and school is a presence on the Internet. A district web page provides information about our mission and goals to incoming families as well as timely information on events and schedules for all community members. Our web site gives parents an opportunity to see some of the exciting projects and class work in which our students and faculty are involved.

Technology will be a vehicle to strengthen home school relationships through communication. Individual classroom web pages and email provide parents with the important links to tracking their child's progress, keep parents up to date with classroom events, and promote effective communication between parent and teacher.

Technology will provide a way for all students and all teachers to communicate and collaborate globally. The Internet provides a way for teachers to collaborate with their peers in other parts of the world. Internet access will give students the ability to stretch beyond the walls of their classroom, to share activities, and to become partners in learning with other cultures.

# **Brookfield Public Schools Strategic Plan 2010-2015**

## **Core Values**

**Comprehensive Education:** We hold as a value that the district will provide an educational program that spans a wide range of curricula that can accommodate all children in meeting their educational needs.

**Safety:** We hold as a value that all students and staff and other members of the school community will work in an environment that secures their physical and emotional well being.

**Life-Long Learning:** We hold as a value that all students will be taught the necessary skills and receive the encouragement to be active and inquisitive learners throughout their lives.

**Citizenship:** We hold as a value that all students will be taught that the obligations they have as citizens is to fulfill their civic responsibilities to their community, state, and nation.

**Respect:** We hold as a value that all students will hold themselves in high esteem and treat all others as they wish to be treated.

**Continuous Improvement:** We hold as a value that all students and staff will continue to grow through ongoing experiences that fulfill their needs and enrich their knowledge.

**Rigor:** We hold as a value that all students will be challenged with a comprehensive array of high quality programs that enables them to expand the limits of their abilities.

**Communication:** We hold as a value that all students will be taught and encouraged to articulate thoughts and ideas using oral, written, and non-verbal communication in a variety of forms and contexts integrating the array of communication resources available to them.

**Responsibility:** We hold as a value that all students and staff will be accountable for their decisions and their actions.

**Integrity:** We hold as a value that all students and staff will demonstrate an adherence to moral and ethical principles rooted in a sense of honesty and truthfulness.

**Collaboration:** We hold as a value that all students and staff will work effectively and respectfully with one another in groups to achieve common goals.

## Goal I: Student Success

### Objective Areas: 2010-2015

**Curriculum:** Curriculum in the Brookfield Public Schools will be *standards-based, rigorous, comprehensive, and transformational* in order to prepare students for success in the *21<sup>st</sup> century*.

Indicators:

- Update K-12 curricula to align with National Common Core State Standards.
- Develop, refine and integrate the K-12 music curriculum to ensure that is challenging to all students at all levels of learning.
- Develop, refine and integrate the World Language Program to ensure that is challenging to all students at all levels of learning.

**Assessment:** Assessment in the Brookfield Public Schools will foster *continuous improvement*, be *data-driven* and inform teaching and learning through the use of *common formative assessments*.

Indicators:

- Improve scores on state assessments in the top quartile of DRG (Demographic Reference Group) B
- Establish and implement district and school-based data teams to improve student achievement.

**Instruction:** Instruction in the Brookfield Public Schools will be *student-centered, collaborative, reflective of best practices, and technology-infused*.

Indicators:

- Increase the use of web-based/collaborative technologies in all subject areas by implementing Web 2.0
- Implement “scientifically research-based interventions” [SRBI] driven by assessment identified needs.
- Integrate 21<sup>st</sup> century skills into teaching and learning to better prepare students for real world challenges.
- Develop, refine and integrate the special education and student support services programs to meet the diverse needs of all students to ensure their success.

**Professional Development:** Professional development in the Brookfield Public Schools will be *systemic, goal-driven; results oriented* and meet the needs of the *professional learning community*.

Indicators:

- Provide staff with opportunities to learn and share best practices of instruction and encourage innovation and teacher creativity through the use of results-driven professional development.
- Provide staff with opportunities to integrate 21<sup>st</sup> century skills into teaching to prepare students to live and work in a changing world.



- Foster opportunities to develop teacher leaders through an administrative aspirant program.

**Recognizing Success:** “Recognizing” success in the Brookfield Public Schools will celebrate *innovation, effort, and achievement*, while fostering *risk-taking* to improve teaching and learning.

Indicators:

- Inform the community about students’ achievement and staff accomplishments to inspire excellence and communicate our district successes.

## Goal II: Student Wellness

### Objective Areas: 2010-2015

**Safe & Secure Learning Environment:** A safe and secure learning environment in the Brookfield Public Schools will ensure a *secure school environment* and maintenance of *class size guidelines*.

Indicators:

- Ensure the safety of all students and staff through the implementation of the district's comprehensive safety plan.
- Ensure the viability of district facilities through the implementation of a long-term capital improvement plan.

**Character Development:** character development in the Brookfield Public Schools will reflect a comprehensive *developmental guidance and advisor-advisee* programs and offer a broad range of *co-curricular activities*.

Indicators:

- Provide co-curricular opportunities for students to accommodate and enrich the diverse array of their interests.
- Implement a developmental guidance program in grades 5-12 to support students' academic, social/emotional and vocational needs.
- Develop and promote mentoring opportunities for students to motivate and support students.
- Assess and implement anti-bullying, cyber-bullying and character education programs to ensure that students demonstrate respect for themselves and others.

**Physical & Emotional Health:** To insure physical and emotional health, the Brookfield Public Schools will implement *substance abuse prevention and healthy eating and exercise programs and initiatives to support at-risk students*.

Indicators:

- Coordinate with community organizations to implement prevention programs targeting substance abuse and other at-risk behaviors to reduce these high-risk activities.
- Advocate healthy life-style choices to foster physical and emotional well-being.

**Parent & Community Partnership:** Parent and community partnerships in the Brookfield Public Schools will increase opportunities for *parent and community involvement* and foster community support by actively *communicating through technology, and partnering with community organizations*.

Indicators:

- Develop and implement a comprehensive plan for the engagement of the entire community in school district activities.
- Garner community support for the district budget via active and ongoing multimedia communication.
- Create an open environment in each school that fosters parental involvement.

## Goal III: Student Readiness

### Objective Areas: 2010-2015

**Successful Transitions:** Successful transitions in the Brookfield Public Schools will facilitate movement from the students' *home-to-school, between the grades, from one school to the next, and from high school to work or post secondary education.*

Indicators:

- Refine and communicate the transition programs to the school community.

**College & Career Awareness & Readiness:** College and career readiness in the Brookfield Public Schools will involve students exploring a *variety of career options* and participate in on-site *internships*.

Indicators:

- Develop and implement a Student Success Plan and BHS Capstone Project to achieve post secondary educational and career goals.
- Evaluate and revise the district's college and career advisor programs to better serve the diverse needs of all students.

**Citizenship:** Citizenship in the Brookfield Public Schools will involve students in completing *community service* and other *service projects* and understanding their *civic responsibility* to the local, regional, national and global communities.

Indicators:

- Expand opportunities for students to participate in community service and Capstone projects to better appreciate their civic responsibilities.

**Life Skills:** Life skills in the Brookfield Public Schools will teach students to become *critical thinkers, effective communicators, creative problem-solvers, innovators, and collaborators* and embrace *life-long learning*.

Indicators:

- Provide structured and measurable opportunities for students to demonstrate the use and application of 21<sup>st</sup> century skills.

## NEEDS ASSESSMENT

In this section you are to assess and describe your LEA's **current technology status** in five categories: curriculum integration, professional development, equitable use of technology, infrastructure and telecommunications services, and administrative needs.

### ***Curriculum Integration***

- When evaluating your needs, consider:
  - current curriculum strengths and weaknesses and the process used to determine these strengths and weaknesses;

**Strength** Currently we are updating curricular maps to integrate technology into all curricular areas. The Technology Resource Teacher works with staff to provide training and assists staff in utilizing technology resources to support the curriculum.

**Weakness** The availability of hardware and the schedule restrictions present barriers to accomplishing integration at all grade levels effectively. We are expanding the opportunities for every student to meet minimum technology competency.

**Process used** The assistant superintendent; building principals and district technology committee identify the needs in each building. The needs are presented to the Director of Business and Technology Operations.

- how curriculum strategies are aligned to state standards;

The Student Competencies are articulated in the Brookfield Library Media and Information and Technology Literacy Framework (ITL).

This work is based on both State and National Standards:

- *I&TL Curriculum Based on State and National Standards*
- *Learning Resources and Information Technology Framework (now Information and Technology Literacy Framework)*
- *Information Power: Building Partnerships for Learning*
- *National Educational Technology Standards for Students (NETS)*
- *AASL Standards for the 21st-Century Learner*
- *Common Core State Standards*

The *Brookfield Library Media and Information and Technology Literacy Frameworks* is based on Connecticut state standards. The ITL frameworks are used in each building and when writing new curriculum.

- the current procedures for using technology to address any perceived curriculum weaknesses;

Data driven decision making is critical to administrators and teachers when allocating resources and providing additional instruction for students. Our district uses *The Pearson Inform* data warehouse as the foundation of data collection efforts at this time. The program allows teachers and administrators to have access to and analyze assessment data. This allows educators to identify areas of weakness in the curriculum and to adjust instruction to improve and allow for differentiation. The program is continually

being customized to meet the diverse needs of the district. One result of this process is to minimize the time lapse between student results on common assessments and instructional response. Our goal is to increase student performance through expanded differentiation.

- how teachers integrate technology into their lessons - including ways technology is presently used for entire classroom and for small group instruction

As advances have been made in technology, teachers have been able to utilize a broader array of tools for optimizing student engagement. Some examples include interactive whiteboards, iPads, student response systems, net books, and Web 2.0 tools.

- how students use technology - including ways students presently use technology for purposes beyond practice of skills.

*Students use, but are not limited to, the following technologies and uses:*

- Research
- Google Presentations
- Streaming webcams
- CAD
- Interior Design
- Engineering
- Real World Simulations
- Animoto
- Blogging
- Works Cited
- Podcasts
- Wikis
- Glogster
- Word processing-Google Docs
- Digital photography
- Video production
- Webpage Design-Google Sites
- Robotics
- Spreadsheet evaluation and graphic
- VoiceThreads
- Graphic Organizer
- Bibliographies
- Email
- Independent studies with animation
- Student response systems (SMART and MimioVote)
- Document Cameras

## ***Professional Development***

- When evaluating your needs, consider:
  - the process the LEA uses for assessing the technology professional development needs of teachers, administrators and noncertified staff;

Each individual school assesses the needs of its staff based upon building based goals and resources currently available or to be acquired. In addition, principals, curriculum resource leaders, and teachers request training through the school technology committee and/or the technology resource teacher.

- the technology professional development activities that have been offered to teachers

Classes are scheduled at different times of the day and on different days of the week to encourage staff to take classes when it is most convenient for them.

A sampling of classes that have been, or will soon be, offered in Brookfield:

- PowerTeacher
- Independent Study (Design your own technology project)
- Web 2.0 Tools (*VoiceThreads, Dropbox, iTunes University, Google Chrome apps, etc.*)
- Mimio Studio Training

- Smartboard Training (including SMART table )
- Integrating Technology Into the Curriculum– exemplary projects
- *Google Sites* Training
- Website Creation & Maintenance
- Google Apps- including student project collaboration
- Wiki Construction
- Aesop staff attendance software
- Blogging
- Content Specific Online Resources
- Creating Digital Ink Lessons
- Interactive Lesson Development for Various Departments
- *Pearson Inform*
- Research Techniques
- Creating and using databases to evaluate information. Use databases templates and/or spreadsheets to create databases for evaluation of data.

- how the effectiveness of the professional development activities will be assessed

Brookfield currently uses the ProTraxx CEU management system to compile data on the effectiveness of professional development activities.

### ***Equitable Use of Technology***

- When evaluating your needs, consider:
  - the availability of technology to students and staff in the district – all students should have equal access to the technology;
  - the amount of time available for the use of technology by students and staff; and
  - a description of the types of assistive technology tools that are provided for students with disabilities where necessary/applicable.

**The following matrix may be used to determine the extent technology is available to staff.**

	Please include information about the type and availability of staff access both on and off campus.
Administrators	All administrators have laptops and/or iPads. <i>Google Apps</i> is our current platform for file storage, productivity, and communication in addition to the Microsoft Office Suite.
Teachers (preschool)	All preschool teachers have laptops and one SMART table is available for use in this program. <i>Google Apps</i> is our current platform for file storage, productivity, and communication.
Teachers	Each teacher has a laptop and/or iPad and <i>Google Apps</i> is our current platform for file storage, productivity, and communication.
Noncertified staff	All non-certified staff has access to computers throughout the buildings. <i>Google Apps</i> is our current platform for file storage, productivity, and communication.

**The following matrix may be used to determine the extent technology is available to students.**

	Please include information about availability in classrooms, the library-media center and all other areas where students have access. Mention the extent of supervised access before and after school.
Students (preschool)	SMART table, Net books and/or Chrome books

Students (elementary)	Classroom computers, computer labs (3) and media center (41). Limited before and after school access.
Students (middle school)	Computer labs (3), media center (55) and mobile net book lab. Limited before and after school access.
Students (high school)	Computer labs (7) and media center (53). Limited before and after school access. One to one initiative for all students & staff being phased in over 4 years (roughly 1000 students).
Students (with disabilities)	Classroom technology and personal equipment based on IEP

## ***Infrastructure and Telecommunications***

- When evaluating your needs, consider:
  - the current technology infrastructure of each school in your district - explaining the type of data and video networking and Internet access that is available;
  - the effectiveness of the present infrastructure and telecommunication services that have been provided by the district; and
  - how E-Rate has allowed the district to improve or increase its technology infrastructure.
  
- All district buildings(4 schools and Town Hall) are connected via a 1GB fiber-optic
  - wide-area-network (WAN)- Charter Communications
- All schools are equipped with HP ProCurve managed network switches
- All schools and TSO are equipped with a new VoIP phone system as of August, 2011.
- In all school we are delivering 100MB(or greater) of bandwidth to each workstation.
  - \_ Network performance varies building to building based on the age of network switches
  - \_ Operating budget funds are used on an annual basis to upgrade networking hardware
  - \_ Performance is also limited by the age and speed of available classroom computers
  - \_ Funds are allocated in the Technology budget for annual hardware upgrades
- All 4 schools – CES, HHES, WMS, BHS and Town Hall have wireless capabilities
- All classrooms are wired with a minimum of two (2) data drops and one (1) voice drop.
  - \_ Internet services are provided by the Connecticut Education Network (CEN)
  - \_ All instructional spaces and offices have internet access
- Video content is available to all classrooms via a district license with Discovery Education.
- All classrooms are equipped with ceiling mounted video projectors and interactive whiteboards
- The district also has its own video studio, video content, messaging and delivery system at the high school
  - capabilities utilizing Canopus and Axis TV.
- Through Charter Communications, the district has sole rights to an educational television channel and broadcasts 24x7x365 out of the head-end room located at Brookfield High School.
- There are twelve (12) computer labs district-wide:
  - CES – One @ 25 seats plus Media Center with 5 seats
  - HHES – Two@25 seats each plus Media Center with 36 seats
  - WMS – Three @ 30 seats each plus a Media Center with 55 seats.
  - BHS – Seven@28 seats each plus a Media Center with 55 seats

## ***Administrative Needs***

- When evaluating your needs, consider:
  - *how do administrative (certified and non-certified) staff use technology, including accessing data for decision-making, student information system reporting, communication tools, information gathering, and record keeping; and*
  - *the professional development opportunities that are available to administrative staff.*
- All administrative staff (administrators, secretaries, clerks and technology staff rely heavily on technology for all aspects of their jobs.
- All staff professional development is open to and utilized by administrators in addition to professional development training tailored to their specific needs.
- The primary intra-district mode of communications is Gmail, the district uses the Google Apps for Education platform.
- The district's web site is also heavily used for internal communications and as a key link to the community at large.
- Each employee has a discreet login and is able to save/access files and utilize the Google Apps suite of productivity tools.
- There are 24 file or application servers in use district-wide.
- The district utilizes the New World Systems Logos system for human resources, payroll and accounting purposes. (web-based .net technology system)
- PowerSchool is utilized as the district's student information system to track all demographic and student performance data. Progress reports, report cards and transcripts are also generated using this system. Parents and students have access to their grades via the portals set up for each.
- All schools in the district utilize PowerSchool for scheduling purposes.
- The district currently utilizes *The Pearson Inform* data warehouse that records student performance that is in use K-12. The system provides data that helps to guide the staff's instructional focus. However, in 2012-13, an in-house solution utilizing PowerSchool, CT Reports and local databases will be implemented.



## **PLAN IMPLEMENTATION**

### ***LEA Technology Goals and Strategies***

The LEA technology plan should be aligned to the National and State Tech Plans and include the following State Goals. The LEA may include any additional goals that apply to their technology plan.

**Goal 1: Engaging and Empowering Learning Experiences**

**Goal 2: Assessment**

**Goal 3: Connected Teaching and Learning**

**Goal 4: Infrastructure for Teaching and Learning**

**Goal 5: Productivity and Efficiency**

## Goal 1: Engaging and Empowering Learning Experiences

National Tech Plan	State Tech Plan
<p><b>1.0 Learning: Engage and Empower</b></p> <p><i>All learners will have engaging and empowering learning experiences both in and out of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society.</i></p>	<p><b>Goal 1: Engaging and Empowering Learning Experiences</b></p> <p><i>All learners will have engaging and empowering learning experiences both inside and outside of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society.</i></p>
<p><b>What will your district do over the life of this local Tech Plan to ensure that learning experiences are empowering, engaging, and supported by digital tools?</b></p>	

### *Action Plan for Goal Area 1*

What Steps Will You Take?	Who Will Be Responsible?	When? (Be specific, e.g., By 10/1/13)	How will you measure?
<p>Integrate technology into all curriculum areas</p> <p>Provide staff training via:            * Data teams            * Technology offerings            * district-wide PD</p> <p>Align with state and national standards and the <i>Information and Technology Literacy Frameworks (ITLF)</i> which Brookfield adopted in June, 2008 – Use these frameworks to determine the currency of our standards and make curriculum adjustments where necessary.</p>	<p>Curriculum Resource Teachers</p> <p>All staff            Central Office            Technology Resource Teacher            Building Administrators</p> <p>District Technology Committee            Administrators            Certified staff members</p>	<p>Revised annually</p> <p>Meet throughout the year, building and district level.            Provided throughout the year.</p> <p>September / May</p>	<p>Curriculum mappings and units stored electronically with curriculum related materials.</p> <p>Technology training, attendance records, teacher lessons, and student work.</p> <p>Professional goals reflect use of technology within the strategic goals and action plans.</p>

Provide educational resources that reflect scientifically based research and best practices.	All staff	On a continual basis	Curriculum documents
Promote professional learning communities among teachers that allow collaboration and sharing resources. Utilize the professional learning communities to use research that is content and grade specific.	Grade level teams CLT teams District teams	Meetings throughout the year.	District support of professional learning communities provided through common planning time, professional development and acquisition of resources to promote collaboration.
Encourage the development and utilization of innovative strategies for the delivery of curricula through the use of technology.	Director of Business and Technology Operations  BHS administrators	Annually	Curriculum documents
Work with CT districts to offer courses from BHS via distance learning. Meetings with local principals and staff to promote our potential offerings.	Director of Business and Technology Operations  BHS administrators	On-going	Virtual High Schools offering, Keystone courses, course offerings appear in Program of Studies.
Technology is available outside of the school day. Google Apps platform available 24/7 wherever there's an Internet connection.	Director of Business and Technology Operations	On-going	Access to district owned resources from home.
Continue to support and expand usage of OPALS- the online library catalog and circulation system.	District library media specialists	On-going	Access to LMC and computer lab before and after school and other available times.

<p>Encourage the enrollment staff in selected courses/offerings.</p>	<p>Administrators, Director of Business and Technology Operations, Technology Resource Teacher</p>	<p>On-going</p>	<p>Distribute a list of available webinars, webcasts, and podcasts.</p>
<p>Foster the use of webinars, webcasts, and podcasts.</p>	<p>Administrators, Director of Business and Technology Operations, Technology Resource Teacher</p>	<p>On-going</p>	<p>Email communiqués to staff.</p>



# **BROOKFIELD PUBLIC SCHOOLS**

## **Library Media and Information and Technology Literacy Framework**

**March 2008**



## Philosophy

All students must be able to use school library/media resources and information and technology effectively to live, learn and work successfully in an increasingly complex and technology-based society. The overarching goal of a library/media and information and technology literacy instructional program is to ensure that all students are independent, competent, responsible and confident users of library/media information and of technology and can apply related strategies for acquiring basic skills and content knowledge, communicating ideas, problem-solving and pursuing personal interests. To achieve this end, library/media and information and technology knowledge, strategies and skills shall be integrated throughout all curricula, K-12.

## Program Goals

By the end of Grade 12, all students will be independent, competent, responsible, productive, and confident users of library/media and of information and technology and able to apply related strategies for acquiring basic skills and content knowledge, collaborating with others, communicating ideas, solving problems and pursuing personal and aesthetic growth and will attain a level of information and technology literacy skills that are measurable and will enable them to:

Communicate information and ideas, conduct research, organize data, and solve problems, and create original works;

Demonstrate responsible, legal, and ethical use of information and technology;

Use effective and efficient strategies to explore and use a wide range of information and technology resources to gain knowledge, deepen understanding, make informed decisions, and solve problems for educational, career and personal pursuits;

Apply library/media and information and technology competencies to learning in the content areas;

Locate, evaluate, interpret, and synthesize information from print and non-print sources;

Use technology tools to enhance learning, increase productivity, and promote creativity;

Use self-assessment strategies to reflect on one's own learning to determine that the skills, dispositions, and responsibilities are effective;

Display curiosity by pursuing interests through multiple resources.

## Hallmarks of Best Practice

### **I&TL Curriculum Based on State and National Standards**

- Learning Resources and Information Technology Framework (now Information and Technology Literacy Framework)
- Information Power: Building Partnerships for Learning
- National Educational Technology Standards for Students (NETS)
- AASL Standards for the 21<sup>st</sup>-Century Learner

### **A Well-defined, but Integrated Curriculum**

- Instruction integrated into and across content areas, K-12
- Developed by I&TL professionals in cooperation with other educators
- Instruction implemented by I&TL professionals working with classroom teachers
- Instruction is planned, systematic and ongoing for all students
- Formal alignment with content areas
- Focus is on student acquisition of I&TL skills and competencies
- Flexible access to I&TL facilities and resources

### **Collaboration**

- Working with all teachers
- Working with all phases of the instructional process: planning, delivery, and assessment

### **Program/Curriculum Driven**

- I&TL instructional program works because it has been embedded in the educational process
- I&TL professional in all schools
- Strong administrative support

### **Student Competency/Performance Assessed**

- Grade-level benchmarks or performance standards have been defined

## Essential Understandings

Students will define their information needs and identify effective courses of action to conduct research and solve problems.

Students will understand and demonstrate a command of information skills and strategies to locate and effectively use print and non-print resources to solve problems and conduct research.

Students will apply information from a variety of sources and formats using evaluative criteria to interpret, analyze, organize, and synthesize both print and non-print material

Students will use appropriate information and technology to create written, visual, oral, and multimedia products to communicate ideas, information or conclusions to others.

Students will operate and use computers and other technologies as tools for productivity, problem-solving and learning across the content areas.

Students will demonstrate the responsible, legal, and ethical use of information resources, computers and other technologies.

Students will assess the effectiveness of their information and technology choices for problem-solving and communication.

Students will display curiosity by pursuing interests through multiple resources.



## Essential Questions

1. What do students need to know prior to using information and technology resources?
2. What are the learning skills and strategies that students need to successfully find information?
3. How do students evaluate and use information resources?
4. How do students use information and technology to express and communicate ideas?
5. What type of technological tools will students use?
6. What are student responsibilities regarding the use of information and technology?
7. How do students evaluate the process and the final product?
8. What are student responsibilities regarding their personal and aesthetic growth?

## Content Standards

### Content Standard 1: Definition and Identification of Information Needs What do students need to know prior to using information and technology resources?

	By Grade 4	By Grade 8	By Grade 12
<i>Students will define their information needs and identify effective courses of action to conduct research and solve problems.</i>	1.1 Clearly restate the scope and criteria of a task (such as time line, length, audience and presentation mode) with minimal prompting	1.6 Clearly restate the scope and criteria for a given task	1.11 Clearly state the scope and criteria for a given task and demonstrate the ability to communicate them to others
	1.2 Identify existing knowledge and, with assistance, list areas where more information is needed	1.7 Identify and discuss existing knowledge concerning a given task, and list areas where more information is needed	1.12 Identify and discuss existing knowledge concerning a given task, and list areas where more information is needed
	1.3 Understand an essential question related to a topic of interest or assignment	1.8 Frame an essential question using given information, and pose additional questions related to completion of the task	1.13 Develop essential questions related to a topic and formulate a research hypothesis related to the topic
	1.4 Identify, locate, and use appropriate print, non-print and/or digital resources available through the school library media center, with assistance	1.9 Identify, locate, and use an array of print and non-print resources available through the library media center and access resources outside the school	1.14 Identify, locate, and use print, non-print and digital resources within and outside the school
	1.5 Describe a course of action for addressing an essential question and completing the task	1.10 Determine an appropriate course of action for addressing the essential question	1.15 Determine a course of action that demonstrates the selection of appropriate strategies and resources for accomplishing a task

**Content Standard 2: Information Strategies****What are the learning skills and strategies that students need to successfully find information?**

	By Grade 4	By Grade 8	By Grade 12
<i>Students will understand and demonstrate information skills and strategies to locate and effectively use print and non-print resources to solve problems and conduct research.</i>	2.1 Use the online catalog to identify materials by author, title or subject, including cross references, and locate resources in appropriate areas of the library media center (e.g., easy section or reference)	2.11 Use additional features of online catalog records and demonstrate the ability to locate information from all areas of the library media center, such as fiction, nonfiction and reference	2.21 Apply principles of information systems organization to a variety of print and non-print resources
	2.2 Use menus, icons, and links to access and use digital media to conduct basic research	2.12 Demonstrate the ability to navigate through a variety of software menus to access information for research, publication and communication	2.22 Use online information resources to meet the needs for research, publications, and communications
	2.3 Locate and use table of contents and indexes in nonfiction materials	2.13 Describe the variety of ways indexes and tables are used as organizers for information systems	2.23 Access specific information from print and non-print resources by using internal organizers (e.g., indexes, cross-references)
	2.4 Identify print and non-print characteristics, organizing features (e.g., table of contents, index), and purposes	2.14 Use additional organizing features of print and non-print (e.g., menus, bibliographies and hyperlinks) to locate and use information	2.24 Plan and design methods to collect reliable data for particular purposes and audiences, using advanced reference materials, indexes, dictionaries and abstracts
	2.5 Display emotional resilience by persisting in information searching despite challenges	2.15 Display persistence by continuing to pursue information to gain a broad perspective	2.25 Demonstrate adaptability by changing the inquiry focus, questions, resources, or strategies when necessary

**Content Standard 2: Information Strategies (continued)**

**What are the learning skills and strategies that students need to successfully find information?**

	2.6 Select appropriate resources from a variety of media formats, understanding that information is stored and accessed in different ways	2.16 Search, find, sort, and evaluate database information from computers, and on-line resources and know how to apply specific features of different search engines	2.26 Determine the best tool for locating information and use key word descriptors and Boolean logic to perform advanced on-line searches (e.g., field searches)
	2.7 Identify and use print and non-print reference sources (atlases, almanacs, encyclopedias, dictionaries, etc.)	2.17 Select and use appropriate resources and/or equipment to accomplish a given task	2.27 Use the full range of print and non-print resources within the school or district
	2.8 Use information presented graphically, orally, textually and visually(e.g., pictures, captions, diagrams or labels)	2.18 Demonstrate ability to take notes, print out or record selected information from a wide range of sources of information presented in any format.	2.28 Demonstrate the ability to solve problems by collecting, analyzing and interpreting data
	2.9 Identify and begin using age-appropriate search engines and directories	2.19 Demonstrate the ability to identify and use a variety of features to locate information using an Internet search engine or directory	2.29 Select appropriate search engines or directories related to a specific task
	2.10 Identify key words for searching for information with assistance.	2.20 Identify key words for searching information with minimal assistance	2.30 Identify key words for searching information independently

**Content Standard 3: Information Processing**  
**How do students evaluate and use information resources?**

	By Grade 4	By Grade 8	By Grade 12
<i>Students will apply information from a variety of sources and formats using evaluative criteria to interpret, analyze, organize, and synthesize both print and non-print material</i>	3.1 Identify appropriate sources of information for a specific purpose	3.5 Develop and apply more complex criteria for aligning resources with a specific need and presentation	3.9 Develop and use personal and established criteria for selecting materials of appropriate breadth and depth of detail, format, illustrations, special features, level, content, purpose and intended audience
	3.2 Use criteria to judge the relevance, credibility and completeness of both print and non-print information	3.6 Apply evaluative criteria to discern stereotypes, biases and propaganda techniques in print and non-print resources	3.10 Demonstrate ability to identify and compare sources of information and apply multiple evaluative criteria, including purpose, point of view, biases and stereotypes, accuracy, continuity and currency
	3.3 Organize, analyze, and synthesize information into related categories with assistance.	3.7 Organize, analyze, and synthesize information to draw meaningful conclusions and determine an appropriate format for presentation	3.11 Organize, analyze and synthesize information to draw meaningful conclusions through written, oral, numeric and visual communications.
	3.4 Use strategies to draw conclusions from information and apply knowledge to curricular areas, real world situations, and further investigations	3.8 Use strategies to draw conclusions from information and apply knowledge to curricular areas, real world situations, and further investigations in order to construct new understandings and create new knowledge	3.12 Use strategies to draw conclusions from information and apply knowledge to curricular areas, real world situations, and further investigations in order to construct new understandings and create new knowledge

**Content Standard 4: Application****How do students use information and technology to express and communicate ideas?**

	By Grade 4	By Grade 8	By Grade 12
<i>Students will use appropriate information and technology to create written, visual, oral and multimedia products to communicate ideas, information or conclusions to others.</i>	4.1 Select and use appropriate software and hardware to organize, analyze, interpret information, and present conclusions	4.3 Create databases, spreadsheets and a variety of multimedia products to organize, analyze and interpret information	4.5 Use a variety of applications to organize, analyze, communicate, and interpret information
	4.2 Use appropriate technologies and formats to clearly present information gathered from a variety of print and non-print resources	4.4 Use appropriate technologies and formats to clearly present information gathered from a variety of print and non-print resources	4.6 Use appropriate technologies and formats to clearly present information gathered from a variety of print and non-print resources to a variety of audiences

**Content Standard 5: Technology Use**  
**What type of technological tools will students use?**

	By Grade 4	By Grade 8	By Grade 12
<i>Students will operate and use computers and other technologies as tools for productivity, problem solving and learning across the content areas.</i>	5.1 Use basic operational features of school hardware (accessing programs, input devices, printing, output devices, keyboard, etc.)	5.10 Operate school hardware and demonstrate the ability to use the school network to access and utilize school software, independently	5.19 Operate school hardware and demonstrate ability to understand and use capabilities of the school network and software, independently
	5.2 Use content-specific technology tools and software	5.11 Use content-specific technology tools and software	5.20 Use content-specific tools and software
	5.3 Demonstrate the ability to use basic features (entering information/data, editing, calculating, manipulating text, sound and graphics, saving files) of personal productivity software	5.12 Demonstrate the ability to independently use personal productivity software and multimedia to create products in a wide range of formats (newsletters, budgets, brochures, imported graphics, web pages, digital movies, etc.)	5.21 Produce a wide range of products using the advanced features of personal productivity software
	5.4 Work cooperatively with peers and others when using computers and other technologies.	5.13 Demonstrate the use of technological resources to help plan, coordinate and complete group projects.	5.22 Using telecommunications, collaborate with peers, experts and others to research, compile, synthesize, produce and disseminate information or creative works
	5.5 Participate and collaborate as members of a social and intellectual network of learners	5.14 Participate and collaborate as members of a social and intellectual network of learners	5.23 Contribute to the exchange of ideas within and beyond the learning community

**Content Standard 5: Technology Use (continued)**

**What type of technological tools will students use?**

	5.6 Identify common hardware and software problems and seek assistance	5.15 Identify hardware and software problems that accompany everyday use and seek assistance	5.24 Identify and apply strategies for solving hardware and software problems
	5.7 Understand that technology tools are constantly changing	5.16 Understand that technology tools are constantly changing and describe their potential for use	5.25 Demonstrate the ability to identify, assess and adapt to new technology tools and resources
	5.8 Describe ways the computer is used to help people work, learn and play	5.17 Identify ways computers and other technologies are affecting the way we live, work and learn	5.26 Analyze the educational, social and ethical issues related to the increased reliance on computers and other technologies
	5.9 Distinguish among different technologies and their uses	5.18 Describe basic criteria used to evaluate and compare different types of computers, peripherals (e.g. printer, scanner) and other technology tools	5.27 Identify evaluative criteria for making informed decisions about computers, peripherals and other technology tools



**Content Standard 6: Responsible Use**

**What are student responsibilities regarding the use of information and technology?**

	By Grade 4	By Grade 8	By Grade 12
<i>Students will demonstrate the responsible, legal and ethical use of information resources, computers and other technologies.</i>	6.1 Demonstrate proper and ethical use and care of print and non-print information resources, computers and other technologies	6.5 Demonstrate responsible and ethical use and care of print and non-print information resources, computers, other technologies and networks	6.9 Demonstrate and advocate for legal and ethical behavior regarding the use of technology and information
	6.2 Apply established citation standards to original sources when using or transmitting information to others	6.6 Apply established citation standards for giving credit for information or ideas used	6.10 Apply established citation standards for a wide range of information sources and formats
	6.3 Demonstrate an understanding of the concept of ownership of ideas and information by respecting and observing laws and/ or guidelines for using print and non-print information, software, hardware and networks	6.7 Differentiate among various types of ownership and protection of intellectual property (e.g., copyright, patents) and observe "fair use" guidelines as they apply to each	6.11 Demonstrate an understanding of the process for copyrighting/protecting their own original work
	6.4 Adhere to the district's acceptable use and copyright policies	6.8 Adhere to the district's acceptable use and copyright policies	6.12 Adhere to the district's acceptable use and copyright policies as well as local, state and national laws and policies

**Content Standard 7: Assessment****How to students evaluate the process and the final product?**

	By Grade 4	By Grade 8	By Grade 12
<i>Students will assess the effectiveness of their information and technology choices for problem-solving and communication.</i>	7.1 Assess whether the process and information gathered was both relevant and complete in response to the assigned task in order to revise strategies and learn more effectively in the future.	7.4 Assess whether the process and information gathered was relevant, complete and accurate in response to the assigned need in order to revise strategies and learn more effectively in the future.	7.7 Assess the relevance, completeness and accuracy of gathered information and the efficiency of the research process in order to revise strategies and learn more effectively in the future.
	7.2 Assess whether their products meet established standards for process, product and presentation	7.5 Assess whether their products meet established standards for process, product and presentation	7.8 Assess whether their products meet established standards for process, product and presentation
	7.3 Reflect and assess for completeness of investigation and recognize new knowledge and understandings	7.6 Reflect and assess for completeness of investigation and recognize new knowledge and understandings	7.9 Reflect and assess for completeness of investigation and recognize new knowledge and understandings

**Content Standard 8: Personal and Aesthetic Growth**  
**What are student responsibilities regarding their personal and aesthetic growth?**

	All Grades
<i>Students will display curiosity by pursuing interests through multiple resources.</i>	8.1 Read, view and listen for pleasure and personal growth
	8.2 Connect ideas to own interests and previous knowledge and experience
	8.3 Consider divergent opinions, and seek information about new ideas
	8.4 Show an appreciation of literature
	8.5 Read widely and fluently to make connections with self, the world, and previous reading

## Goal 2: Assessment

National Tech Plan	State Tech Plan
<p><b>2.0 Assessment: Measure What Matters</b>  <i>Our education system at all levels will leverage the power of technology to measure what matters and use assessment data for continuous improvement.</i></p>	<p><b>Goal 2: Assessment</b>  <i>Our education system at all levels will leverage the power of technology to measure what matters and use assessment data for continuous improvement.</i></p>
<p><b>What will your district do over the life of this local Tech Plan to ensure that technology is used for assessment?</b></p>	

### Action Plan for Goal Area 2

What Steps Will You Take?	Who Will Be Responsible?	When? (Be specific, e.g., By 10/1/13)	How will you measure?
Utilize technology with content that is appropriate, relevant, and engaging and will effectively enhance the achievement of all students.	All certified staff	On-going	Continue to promote the technology-infused model for all students as it relates to their classroom learning experiences.  Provide specific professional development opportunities to all staff that demonstrates effective use of technology
Provide students with access to take tests and assessment through the use of technology, online or network-based.	All certified staff and technology support personnel.	On-going	Utilization of assessment results obtained from online sources or digital tools used within the classroom (ie. Student response systems).
Connect student achievement and the use of technology	All staff	On-going	Collect data and analyze responses from common formative and summative assessments.
Provide all students with	All staff	Quarterly	Report findings to both, school and district data teams.
Provide all students with	All staff	On-going	

<p>the opportunity to meet District, State, and National Standards.</p> <p>Students will meet competency standards by grade 8</p>	<p>Certified staff</p>	<p>On-going</p>	<p><i>Tool for Real-Time Assessment of Information Literacy Skills (TRAILS)</i> assessments: Grades 3,6,8,9,12</p> <p>Curriculum documents</p> <p>Library Media and Information Literacy and Technology Literacy Frameworks</p> <p>Grade level curriculum maps</p> <p>Library Media and Information Literacy and Technology Literacy Frameworks</p> <p>Technology-infused learning experiences utilizing a variety of digital tools and resources</p>
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## Goal 3: Connected Teaching and Learning

National Tech Plan	State Tech Plan
<p><b>3.0 Teaching: Prepare and Connect</b>  <i>Professional educators will be supported individually and in teams by technology that connects them to data, content, resources, expertise, and learning experiences that enable and inspire more effective teaching for all learners.</i></p>	<p><b>Goal 3: Connected Teaching and Learning</b>  <i>Professional educators will be supported individually and in teams by technology that connects them to data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners.</i></p>
<p><b>What will your district do over the life of this local Tech Plan to ensure that educators are prepared to teach 21st Century learners and are connected to technology resources that support teaching and learning?</b></p>	

### Action Plan for Goal Area 3

What Steps Will You Take?	Who Will Be Responsible?	When? (Be specific, e.g., By 10/1/13)	How will you measure?
Provide professional development workshops that are related to 21 <sup>st</sup> century skills and learning.	The district's core group of technology trained certified staff.	On a continual basis	Classes will be offered at all schools throughout the year on a rotating time schedule. Attendance records will be kept from classes offered at all schools.
Develop and plan workshops based on the needs of staff	The district's core group of technology trained certified staff.	Revisited on an annual basis.	Demonstrate best practices of technology infused lessons through teacher lessons and student work.
Improve administrative functions with more efficient and accurate data	District office staff and the district's core group of technology trained certified staff.	Done as needed.	Use the district web site to demonstrate examples of best practices, curriculum resources, and state and national standards.
Creation of a district technology website. Post upcoming staff opportunities and share examples of best practices and resources.	A sub-committee of the District Technology Committee.	Implement in 2011-12 school year with expected quarterly updates.	Use a counter to track the staff usage of the web resources and postings.

<p>Provide training in one-to-one tablet initiative at the high school level</p>	<p>All high school staff and 1 full time staff member dedicated to the tablet initiative.</p>	<p>Phase I implemented with the freshman class and staff. The program will continue as follows: 2012-15 with each incoming freshman class.</p>	<p>Student learning projects, Web 2.0 applications incorporated into teaching instructional designs, and data on instruction on a tablet in comparison to traditional methods.</p>
<p>Provide training in utilization of technology learning environments (4-5 Chrome books) incorporated into individual classrooms.</p>	<p>Staff at Whisconier MS, Huckleberry Hill ES, and Center ES.</p>	<p>Classroom learning environments will be integrated on the following schedule:  Year 1 (2012-13):  Grades 1, 4 and 8.  Year 2 (2013-14):  Grades K, 2, and 5.  Year 3 (2014-15):  Grades 3, 6, and 7.</p>	<p>Student learning projects and Web 2.0 applications.</p> <p>Data on best instructional practices utilizing technology learning environments within the classroom.</p> <p>Reporting to building data teams on data collected.</p>

### 2011-12 Technology Opportunities for Staff:

Google Apps Introduction  
Google Sites  
Mimio Studio Updates  
iCONN features & uses  
Google Docs with Students  
TA workshop on Google Apps  
Research Techniques

AESOP training  
Web 2.0 Pyramid (Bloom’s Taxonomy)  
SMART table training  
Wikis in the Science classroom  
Google Docs for Collaboration  
Creating Quality Interactive Content

## Goal 4: Infrastructure for Teaching and Learning

National Tech Plan	State Tech Plan
<p><b>4.0 Infrastructure: Access and Enable</b>  <i>All students and educators will have access to a comprehensive infrastructure for learning when and where they need it.</i></p>	<p><b>Goal 4: Infrastructure for Teaching and Learning</b>  <i>All students and educators will have access to a comprehensive infrastructure for learning when and where they need it.</i></p>
<p><b><i>What will your district do over the life of this local Tech Plan to ensure that all students and educators will have access to a comprehensive infrastructure for teaching and learning?</i></b></p>	

### *Action Plan for Goal Area 4*

What Steps Will You Take?	Who Will Be Responsible?	When? (Be specific, e.g., By 10/1/13)	How will you measure?
Attain and maintain optimum connectivity between district points	Director of Business and Technology Operations and building technology staff.	On-going	Monitor network for optimal speed and connectivity.
Ensure reliability and stability of the network	Director of Business and Technology Operations and building technology staff.	On-going	Monitor network to ensure reliability and stability.
Keep fiber optic current with switches, routers and firewall	Director of Business and Technology Operations and building technology staff.	On-going	Monitor network of current switches, routers, and firewall.
Update data disaster recovery plan	Director of Business and Technology Operations	On-going	Revised plan incorporates changes.
Hire sufficient staff	Director of Business and Technology Operations.	On-going	Evaluate and recommend future support staff.
Allocate staff time and resources between buildings	Director of Business and Technology Operations.	On-going	Evaluate and recommend future support staff.
Outsource when network and database functions are beyond the capability of the district staff	Director of Business and Technology Operations	On-going	Monitor network to ensure reliability and stability
Continue utilizing data and expand the data warehousing and data mining	Director of Business and Technology Operations	On-going	Monitor network to ensure reliability and stability.



<p>Update inventory Provide consistency of available software across district</p>	<p>Director of Business and Technology Operations</p>	<p>On-going</p>	<p>Assess inventory</p>
<p>Maintain standard operating system and upgrade hardware and software</p>	<p>Director of Business and Technology Operations</p>	<p>On-going</p>	<p>Monitor network to ensure reliability and stability</p>
<p>Adhere to District Purchasing Guidelines</p>	<p>Director of Business and Technology Operations</p>	<p>Annually</p>	<p>Evaluate and recommend purchases based on need, availability and compatibility.</p>

## Goal 5: Productivity and Efficiency

National Tech Plan	State Tech Plan
<p><b>5.0 Productivity: Redesign and Transform</b>  <i>Our education system at all levels will redesign processes and structures to take advantage of the power of technology to improve learning outcomes while making more efficient use of time, money, and staff.</i></p>	<p><b>Goal 5: Productivity and Efficiency</b>  <i>Our education system at all levels will redesign processes and structures to take advantage of the power of technology to improve learning outcomes while making more efficient use of time, money, and staff.</i></p>
<p><b>What will your district do over the life of this local Tech Plan to maintain or redesign processes and structures to take advantage of the power of technology to improve learning outcomes while maintaining efficiency?</b></p>	

### Action Plan for Goal Area 5

What Steps Will You Take?	Who Will Be Responsible?	When? (Be specific, e.g., By 10/1/13)	How will you measure?
Evaluate and make changes to this plan	The District Technology Committee	Quarterly	Adoptions of the modifications by the BOE
Continue to provide access for students to take tests and assessments online	Director of Business and Technology Operations; Building based technicians	On-going	Monitor network Utilization of assessment results.
Improve instruction	Use data from the district's data warehouse by grade level, by administration – district wide	On-going	Administrative evaluations Improvement in test scores
Continue to provide administration with ability to be accessible 24/7	Director of Business and Technology Operations and building based technology support staff	On-going	Increased productivity usage through providing communication access devices.
Update software to meet administrative needs	Administration and Director of Technology	On-going	Monitor functionality of the SIS and data-generate and analyze reports.

Continue to develop and utilize data teams	District and build-based data teams	On-going	Collect and analyze data from a variety of sources.  Generate reports and analyze to make informed decisions on improving instructional practices.
Integrate technology into all curricular areas	All certified staff	On-going	Curriculum Maps
Continue the use of student performance based assessments	All certified staff	On-going	Exemplary lessons, student work and projects
Continue to offer in-district professional development	All staff	On-going	Increased use of technology in classroom environment-lessons, assignments and projects
Provide one-to-one tablet initiative (iPad) at the high school level to improve student learning outcomes	All high school staff and 1 full time staff member dedicated to the tablet initiative.	Phase I implemented with the freshman class and staff. The program will continue as follows: 2012-15 with each incoming freshman class.	Student learning projects, Web 2.0 applications incorporated into instructional designs, and data on instruction on a tablet in comparison to traditional methods.  Utilization of online resources (CINCH, iAuthor, and iTunes University)
Provide technology learning environments (4-5 Chrome Books) on the K-8 level for individual classroom teachers.	Staff at Whisconier MS, Huckleberry Hill ES, and Center ES	Classroom learning environments will be integrated on the following schedule: Year 1 (2012-13): Grades 1, 4 and 8. Year 2 (2013-14): Grades K, 2, and 5. Year 3 (2014-15): Grades 3, 6, and 7.	Student learning projects and web 2.0 applications.  Data on best instructional practices utilizing technology learning environments within the classroom.  Reporting to building data teams on data collected.

<p>Encourage students and staff to use their personal electronic devices to carry out daily academic routines.</p>	<p>Director of Business and Technology Operations, District technology support personnel, and the district's core group of technology trained certified staff.</p>	<p>On-going</p>	<p>Monitor network to evaluate usage.</p>
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## CHILDREN’S INTERNET PROTECTION ACT (CIPA) CERTIFICATION

Schools and libraries that plan on receiving E-Rate discounts on Internet access and/or internal connection services after July 1, 2002, must be in compliance with the CIPA. CIPA compliance means that schools and libraries are filtering their Internet services and have implemented formal Internet safety policies (also frequently known as Acceptable Use Policies). Information on the CIPA requirements is located at [http://E-Ratecentral.com/CIPA/cipa\\_policy\\_primer.pdf](http://E-Ratecentral.com/CIPA/cipa_policy_primer.pdf).

I, Anthony Bivona , certify that one of the following conditions (as indicated below) exists in:  
Name of Superintendent/Director

Brookfield Public Schools  
LEA

<b>X</b>	My LEA/agency is E-Rate compliant; or
	My LEA/agency is not E-Rate compliant. (Check one additional box below):

	Every “applicable school*” has complied with the CIPA requirements in subpart 4 of Part D of Title II of the ESEA**.
	Not all “applicable schools*” have yet complied with the requirements in subpart 4 of Part D of Title II of the ESEA**. However, the LEA has received a one-year waiver from the U.S. Secretary of Education under section 2441(b)(2)(C) of the ESEA for those applicable schools not yet in compliance.
	The CIPA requirements in the ESEA do not apply because no funds made available under the program are being used to purchase computers to access the Internet, or to pay for direct costs associated with accessing the Internet, for elementary and secondary schools that do not receive E-Rate services under the Communications Act of 1934, as amended.

\*An applicable school is an elementary or secondary school that does *not* receive E-Rate discounts and for which Ed Tech funds are used to purchase computers used to access the Internet, or to pay the direct costs associated with accessing the Internet.

\*\* Codified at 20 U.S.C. § 6777. See also, <http://www.ed.gov/legislation/ESEA02/pg37.html>

## GRANTS AND FUNDING

The Brookfield Public Schools maximizes its buying potential by pursuing many avenues of fund and equipment procurement. Historically, Brookfield has applied for many local, state, and national funding sources. The sources vary from entitlements to competitive grants. However, the majority of the funding for

technology in Brookfield comes from the local budget. Brookfield is an affluent community, which disqualifies it from many external funding sources. Brookfield utilizes the following account codes which are part of the yearly budget.

### ACCOUNT CODE DESCRIPTION OF ITEMS CONTAINED

111 Certified Salaries

112 Administrator Salary

122 Non-Certified Technical

312 Training Technical Services

340 Technical Services – Outsourcing

431 Technology Repair

580 Travel / Conferences

614 Supplies

643 Subscriptions / Periodicals

734 Other Capital (Software Licensing and Classroom Instructional Equipment)

443 Technology Lease

Account Number	Title	12/13 Budget Request	13/14 Budget	14/15 Budget
111	Certified staff	96,074	97,515	98,734
122	Administrative Salaries	0	0	0
122	Noncertified salaries	244,212	251,538	259,085
129	Overtime	16,200	16,200	16,200
321	Technical Services	0	0	0
340	Technical Services	9,000	9,000	9,000
431	Repair	9,000	9,000	9,000
443	Lease/Rent	208,333	210,000	212,500
580	Conference and Travel	2,000	2,000	2,000
530	Telecommunications	34,500	34,500	34,500
611	Instructional Supplies	0	0	0
614	Other Supplies	60,000	60,000	60,000
734	Other Capital	222,700	230,000	240,000

In combination with the local budget, the district utilizes lease-purchase programs wherever feasible. By utilizing this structure, the district is able to purchase items necessary to equip the school district and to continue to make progress towards meeting district goals.

Beyond the local budget here are a few examples of outside funding utilized by the district both past and present:

#### TCLF —TECHNOLOGY LITERACY CHALLENGE FUND.

This is a competitive grant structure for technology professional development activities. The district has sought after and been awarded these monies in the past and will pursue them again if the opportunity avails.

#### UNIVERSAL SERVICE FUND – E-Rate

This funding, received from the federal government, is based on a calculation of the number of Brookfield students participating in the Free/Reduced Lunch program. The district qualifies for a 40% reimbursement rate on all telecommunication, voice, wide area networking and cellular phone charges. The reimbursement monies are allocated back into the Technology Operations Department and are utilized to pay the salary of one district technology support staff member.

Other grants applied for:

~ Perkins Grants – funds are used to support the district’s marketing education program.

The district also accepts donations of equipment or funds to use in the technology programs. Donations are accepted through the Director of Business and Technology Operations. The director disperses the equipment or funds where the need is greatest and reports to the Board of Education all donations.

The district also accepts donation of in kind services in technology. Technical expertise of the members of the community is vast and the Technology Services Department of the District welcomes any support that may be given by these experts.

# Technology Funding Sources and Costs

ANNUAL BUDGET SUMMARY

YEAR 2012-2013

**NOTE: DUPLICATE THIS PAGE FOR EACH YEAR AS NEEDED**

- List the professional development and technologies to be acquired during each year of the agency's plan.
- Note: At least 25 percent of the funds allocated to an LEA through the *Title II-D ED Tech Program* must be allocated for professional development activities. (Assume that Title II D funding [or its replacement] will remain flat.)
- Estimate the cost of the professional development and technologies in the appropriate column(s) from which the agency intends to take the funds.
- Describe how your LEA coordinates or aligns the other federal, state; local funds with LEA consolidated plans and/or individual school's School

Acquired Technologies and Professional Development	Local Operating Budget	Ed Tech Competitive Title II	Ed tech formula Title II	State Bond Funds	Capital	E-Rate	Other
1:1 tablet initiative	35,000						
Tablet Apps	30,000						
K-8 Classroom technology centers	5,000						
Digital music program	4,000						
Video projectors and interactive whiteboards	51,000						
Managed wireless network	15,000						
Net books	11,000						
Class MFD's	50,000						
Technology professional development	30,000					13,000	
Technology staffing						42,000	
<b>Total:</b>	<b>231,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55,000</b>	<b>0</b>



Technology Funding Sources and Costs  
ANNUAL BUDGET SUMMARY

YEAR 2013-14

**NOTE: DUPLICATE THIS PAGE FOR EACH YEAR AS NEEDED**

- List the professional development and technologies to be acquired during each year of the agency's plan.
- Note: At least 25 percent of the funds allocated to an LEA through the *Title II-D ED Tech Program* must be allocated for professional development activities. (Assume that Title II D funding [or its replacement] will remain flat.)
- Estimate the cost of the professional development and technologies in the appropriate column(s) from which the agency intends to take the funds.
- Describe how your LEA coordinates or aligns the other federal, state; local funds with LEA consolidated plans and/or individual school's School

Acquired Technologies and Professional Development	Local Operating Budget	Ed Tech Competitive Title II	Ed tech formula Title II	State Bond Funds	Capital	E-Rate	Other
1:1 tablet initiative	70,000						
Tablet Apps	30,000						
K-8 Classroom technology centers	5,000						
Digital music program	4,000						
Desktop and laptop computers	16,000						
Managed wireless network	15,000						
Net books	11,000						
Class MFD's	50,000						
Technology professional development	30,000					13,000	
Technology staffing						42,000	
<b>Total:</b>	<b>231,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55,000</b>	<b>0</b>

Technology Funding Sources and Costs  
 ANNUAL BUDGET SUMMARY

YEAR 2014-15

**NOTE: DUPLICATE THIS PAGE FOR EACH YEAR AS NEEDED**

- List the professional development and technologies to be acquired during each year of the agency’s plan.
- Note: At least 25 percent of the funds allocated to an LEA through the *Title II-D ED Tech Program* must be allocated for professional development activities. *(Assume that Title II D funding [or its replacement] will remain flat.)*
- Estimate the cost of the professional development and technologies in the appropriate column(s) from which the agency intends to take the funds.
- Describe how your LEA coordinates or aligns the other federal, state; local funds with LEA consolidated plans and/or individual school’s School

Acquired Technologies and Professional Development	Local Operating Budget	Ed Tech Competitive Title II	Ed tech formula Title II	State Bond Funds	Capital	E-Rate	Other
1:1 tablet initiative	105,000						
Tablet Apps	11,000						
K-8 Classroom technology centers	5,000						
Digital music program	4,000						
Managed wireless network	15,000						
Netbooks	11,000						
Class MFD's	50,000						
Technology professional development	30,000					13,000	
Technology staffing						42,000	
<b>Total:</b>	<b>231,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55,000</b>	<b>0</b>

# Appendices

## Appendix A: Tech Planning Resources

### Technology Planning

- National Tech Plan:  
Double click on this file to open  
→



NETPFullReport11-9-10.pdf

or to view it on the Web, go to: <http://www.ed.gov/sites/default/files/netp2010.pdf>

- State of Connecticut Tech Plan:  
Double click on this file to open  
→



CT\_Technology+Plan+2010FINAL.doc

Educational Technology Planning	Site
CSDE Position Statement on Educational Technology	<a href="http://www.sde.ct.gov/sde/cwp/view.asp?a=2678&amp;q=320314">http://www.sde.ct.gov/sde/cwp/view.asp?a=2678&amp;q=320314</a>
National Educational Technology Plan	<a href="http://www.ed.gov/technology/netp-2010">http://www.ed.gov/technology/netp-2010</a>
CT Teacher Technology Competencies	<a href="http://www.sde.ct.gov/sde/lib/sde/pdf/dtl/technology/perfindi_v2.pdf">http://www.sde.ct.gov/sde/lib/sde/pdf/dtl/technology/perfindi_v2.pdf</a>
International Society for Technology in Education Essential Conditions	<a href="http://www.iste.org/Libraries/PDFs/Essential_Conditions_2007_EN.sflb.ashx">http://www.iste.org/Libraries/PDFs/Essential_Conditions_2007_EN.sflb.ashx</a>
National Educational Technology Standards for Administrators	<a href="http://www.iste.org/standards/nets-for-administrators.aspx">http://www.iste.org/standards/nets-for-administrators.aspx</a>
National Educational Technology Standards for Teachers	<a href="http://www.iste.org/standards/nets-for-teachers/nets-for-teachers-2008.aspx">http://www.iste.org/standards/nets-for-teachers/nets-for-teachers-2008.aspx</a>
National Educational Technology Standards for Students	<a href="http://www.iste.org/standards/nets-for-students/nets-student-standards-2007.aspx">http://www.iste.org/standards/nets-for-students/nets-student-standards-2007.aspx</a>
CT Education Network (CEN)	<a href="http://www.ct.gov/cen/site/default.asp">http://www.ct.gov/cen/site/default.asp</a>
CT Commission for Educational Technology (CET)	<a href="http://www.ct.gov/ctedtech/site/default.asp?cenPNavCtr= #30930">http://www.ct.gov/ctedtech/site/default.asp?cenPNavCtr= #30930</a>
SETDA Toolkits	<a href="http://www.setda.org/web/guest/toolkits">http://www.setda.org/web/guest/toolkits</a>
Partnership for 21st Century Skills	<a href="http://www.21stcenturyskills.org/">http://www.21stcenturyskills.org/</a>
Documentation from	<a href="https://sites.google.com/site/cteett/home/21st-century-learning-">https://sites.google.com/site/cteett/home/21st-century-learning-</a>

## ***Appendix B: Evaluating Your Plan***

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 following information can be used to help build and monitor an exemplary technology plan.

### **The Committee**

#### **An exemplary plan:**

- Includes a representative committee member of each stakeholder group, including community members.
- Describes responsibilities of each committee member.
- Includes a timeline of milestones, including meeting dates and deliverables.

#### **The results:**

- Leverages the support, depth of experience, and views of the school community in developing and implementing the technology plan

### **The Mission and Vision**

#### **An exemplary plan:**

- Ensures that vision addresses the school mission.

#### **The results:**

- Implements changes designed to increase student achievement through the use of technology.
- Leads to the efficient use of technology in all aspects of the school community.

### **The Needs Assessment**

#### **An exemplary plan:**

- Assures all stakeholders have a voice in developing the needs assessment.
- Assesses what is already being done in the school and district.
- Researches innovations of other schools and districts.
- Studies the current school/district culture with regard to risk taking and technology innovation.
- Identifies and prioritizes target areas.

#### **The results:**

- Provides the data needed to participate in an effective technology planning process which will support systemic change.

## Goal 1.0 Engaging and Empowering Learning Experiences

*What will your district do over the life of this local Tech Plan to ensure that learning experiences are empowering, engaging, and supported by digital tools?*

### **An exemplary plan:**

- Monitors, updates and reports to stakeholders 4 times per year on the plan.
- Collects, analyzes and distributes data to demonstrate increased student achievement through the implementation of the technology plan.
- Individualizes learning in level and pacing using technology.
- Uses technology to collect data and stakeholder responses concerning the use of technologies for improving and assessing academics.
- Measures progress toward benchmarks within the technology plan.

### **The data:**

- lists goals and objectives that are or are not met including explanations and ways to overcome barriers
- includes a plan for meeting unmet goals and objectives
- lists unexpected outcomes or benefits of the technology plan
- lists other needs that have emerged since the plan was last written/revised
- deletes goals and objectives that are no longer relevant to the current situation
- lists developments in technology that can take advantage of improving the school district.

### **The results:**

- The district stakeholders are kept informed on the direction and progress of empowering, engaging and supporting learning with digital tools.
- Teachers and administrators have ways to measure progress.

## Goal 2.0 Assessment

*What will your district do over the life of this local Tech Plan to ensure that technology is used for assessment?*

### **An exemplary plan:**

- Identifies and addresses goals in the school improvement plan
- Identifies data points that can be used at the classroom level to improve instruction, (e.g. results of common formative digital assessments to be analyzed by data teams.)
- Identified data points that can be used at the system/district level to improve operations (e.g. data on misuse of technology by students related to bullying, etc.)
- Clearly identifies which data points will be collected by which tool.
- Includes data collection timeline with reporting criteria (shared with whom and when)
- Provides the essential conditions to address technology as an assessment tool (e.g. infrastructure, training, etc.)

### **The results:**

- Students take assessments on line and gain immediate results.
- Educators, parents, and students are able to access the data 24/7.
- Systems are in place to evaluate, monitor, and improve the assessment data.

### 3.0 Connected Teaching and Learning

*What will your district do over the life of this local Tech Plan to ensure that educators are prepared to teach 21st Century learners and are connected to technology resources that support teaching and learning?*

**An exemplary plan:**

- Ensures that staff is ready to use, maintain and improve skills for both professional and teaching technologies that support teaching and learning.
- Develops and communicates models for professional learning
- Professional Development is aligned to district/building standards and/or goals
- (e.g., ISTE NETS, NSDC Professional development standards, cyber bullying legislation, etc.)
- Maintains a method of recording professional growth using technology for all employees (e.g. district office, teachers, technical staff etc.)
- Maintains a database of resources which may include providers, models, sites to visit, conferences, online opportunities and funding sources. This information is available online.
- Supports professional development by creating times and/or physical/virtual spaces where the staff can collaborate and share
- Includes a plan of action for adequate planning and implementation; provides a safety net for innovators.

**The results:**

- Professional development model permits educators to define growth areas.
- Educators work in a collaborative environment to achieve those goals.
- All employees at the district's sites have equal access to individualized professional growth opportunities.
- Technology policies and procedures are clear about expectations and consequences.

### 4.0 Infrastructure for Teaching and Learning

*What will your district do over the life of this local Tech Plan to ensure that all students and educators will have access to a comprehensive infrastructure for teaching and learning?*

**An exemplary plan:**

- Manages ongoing costs by researching total cost of ownership, including regular upgrades and replacement.
- Allots human resources to keep the technologies working efficiently.
- Ensures purchases align with building/district goals to improve student achievement.
- Assesses implementation of technology for equity across grade levels, student abilities, teachers, etc. (according to needs assessments)
- Monitors and keeps records of upkeep, upgrades and replacement.

**The results:**

- The district provides all the essential conditions that connect:
- Educators to data, content, resources, expertise and learning experiences so that they are prepared to teach 21st century learners.
- Students to data, content, resources, expertise and learning experiences so that they are prepared to learn 21st century skills.
- Stakeholders to the information needed to make informed decisions.

## 5.0 Productivity and Efficiency

*What will your district do over the life of this local Tech Plan to maintain or redesign processes and structures to take advantage of the power of technology to improve learning outcomes while maintaining efficiency?*

**An exemplary plan:**

- Selects a balanced standing committee of stakeholders who research new trends and technologies
- Assists the district in developing a culture which supports innovations
- Develops by-laws for committee membership which include details such as: defined roles, terms of service, expectations, etc.
- Researches innovative ways to deliver and assess content such as blended learning or content mastery.

**The results:**

- The district uses technology to improve learning environments.
- Cutting edge technology is used and transparent in the school.
- New policies will be developed and implemented that increase learning outcomes.

## ***APPENDIX C: Technology Plan Review Guide***

### **Technology Plan Review Guide**

Name of Reviewer \_\_\_\_\_ LEA \_\_\_\_\_

	Complete? (Y/N)	additional information required/comments
LEA Profile		
Technology Committee		
Vision Statement		
Needs Assessment		
Goal 1		
Goal 2		
Goal 3		
Goal 4		
Goal 5		
Questions/Comments		

I, \_\_\_\_\_, verify that this district has successfully completed all of the requirements stated in the technology plan template.

\_\_\_\_\_  
Signature of Reviewer