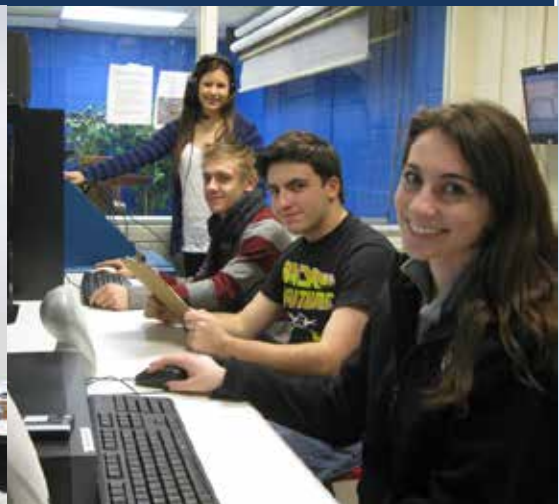2012

WSD Technology Department
21st Century Teaching & Learning Initiative
Implementation Plan

Presented by
John J. McGowan, IV - Director of Technology
Susan Incorvia – Director of Secondary Teaching
& Learning

5/14/2012

TABLE OF CONTENTS

4

IMPLEMENTATION PLAN MEMBERS AND AUTHORS

- Jason Faucon – Systems & Network Administrator
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- John McGowan – Director of Technology
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VISION, GOALS, & OBJECTIVES

The vision of this 21st Century Teaching & Learning Implementation Plan is to provide students with a device to augment teaching and learning in the classroom. Students must be prepared to be successful in their future employment. With the outlook of a competitive job market, it is in the best interest of the students of Wissahickon, that not only are they prepared academically, but technologically as well. Students must be able to do more than regurgitate content. They must be able to be successful in a collaborative workforce and foster strong problem-solving skills.

VISION STATEMENT

"Create a teaching and learning framework that inspires students to develop 21st Century Skills."

Adopted on January 5, 2012 by the 21st Century Teaching & Learning Steering Committee.

GOALS & OBJECTIVES

- **Teachers will have access to a comprehensive program of professional development that will train them to use technology as an integral tool to enhance teaching and learning.**

    o Teachers will be able to develop lessons that will allow students to meaningfully integrate technology.

    o Teachers at all levels will be able to recognize and use instructional technologies for teaching critical-thinking and problem-solving skills to enhance student achievement.

    o Teachers will support their classroom environments with multiple assessments, such as project-based learning, cross-curricular projects, and collaborative learning.

- **All students will acquire and use technology and digital literacy skills that will prepare them for the 21st Century.**

    o Students will effectively use technology to access, communicate, apply knowledge and to foster creativity.

    o By June 2016, the district will provide to all secondary school students hardware, software, and online learning tools that provide access to rich content resources and is aligned to academic content standards.

    o By June 2016, 98% of secondary students will demonstrate the ability to utilize grade-level appropriate computer skills and information, and communications applications to research and present their work.

    o By June 2016, 98% of all students will receive instruction through the integration of technology in the academic content areas to become proficient with the technological literacy skills in the district scope and sequence at the 8th and 11th grades.

- **Connections between school and community will be developed through the use of technology to support digital communication and literacy.**
  - o Teachers will create and use an online presence for their classroom, such as a website, Moodle course, or Wikispace.

- **Teachers, students and community will use technology appropriately and ethically.**
  - o By June 2016, 98% of secondary students will receive instruction in Internet Safety, and will use those skills to help protect their online privacy and avoid online predators.
  - o Students will receive instruction in the appropriate and ethical use of information technology, including the concept and purpose of both copyright and fair use, and the need to refrain from copyright infringement and plagiarism.

Over the past two years, the administration has researched 1:1 initiatives across the country. The process has included culminating the best practices and potential pitfalls districts have experienced in implementing this type of initiative through article reviews, interviews, and attendance at national educational technology conferences. Below is a brief summary of a few districts that have implemented successful 1:1 netbook initiatives:

SAN DIEGO UNIFIED SCHOOL DISTRICT (CA)[1]

- On year three of a 5-year plan (Y1 Gr 3-6)(Y2 Gr 4, 7, & HS Language Arts)(Y3 Gr. 5 & 8) (Y4 Gr 1 & more HS) (Y5 Gr K, 2 & rest of high school)
- 78,000 netbooks
- Reported increases in student engagement, more attention to tasks, more enthusiastic response to lessons.
- Changed the teaching and learning environment. The initiative was about merging good teaching with good curriculum using technology and 21st Century Skills.
- Support parents and teachers with new teaching methods.
- Challenges
    o Funding the initiative in the current economic climate which includes teacher layoffs

EVANSVILLE VANDERBURGH SCHOOL CORPORATION (IN)[2]

- High school implementation
- 7,200 netbooks
- Must consider technical support, training for teachers and students, network capability, and curricular investments
- Provided equity for students.

Devany, L. (2011, October). Reinventing Education, Revisited. *eSchool News*, pp. 17-23.

[2] Manzo, K. K. (2009, Fall). Netbook-Laptop Debate: Schools weigh the cost savings of netbooks versus the digital power of laptops. *Digital Directions*, pp. 12-16.

- Started hybrid - students could bring in their own devices and netbooks.
- Most students did not want to bring in their own computers – Not sure if it was because they felt the computers were too good, or not good enough.
- Utilized the Dell 2100 Netbook
- Introduced netbooks (3rd year in)
- Targeted specific classrooms – Year 1 lower-level math sections, Year 2 10th grade, ELL, special education
- Insurance is critical to initiative – WCSD charged $30 per machine
- Critical points for their success. Obtain teacher and student buy-in. Peer-pressure was an issue in the hybrid model, minority students did worse regarding peer pressure. They were not comfortable using netbooks when other students brought in "bigger and better" laptops.
- PSSA Math scores increased and many students becoming proficient. In comparing 8th test scores to students' 11th grade test scores, students who had the computers show their scores decreased by 6.6%. Students without the computers showed scores decreased much more at 28.9%. They will continue to analyze the situation, expecting to see scores begin to increase.

FIVE-YEAR 21ST CENTURY TEACHING & LEARNING TECHNOLOGY BUDGET

The five-year estimated technology budget[3] based on Scenario E to reach a full 1:1 mobile computing initiative in grades 6-12 breaks down as follows:

EQUIPMENT & HARDWARE

Item	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Student Laptop Replacements	$0	$0	$135,000	$54,000	$0
Student Netbooks	$102,600	$39,900	$0	$191,520	$191,520
Spare Netbooks	$0	$11,400	$11,400	$11,400	$11,400
Student Full-size Laptops	$0	$200,250	$400,500	$400,500	$0
Laptop Carts	$16,200	$18,000	$41,400	$41,400	$68,400
Laptop Cases	$0	$24,000	$24,000	$40,128	$36,768
	$118,800	$293,550	$612,300	$738,948	$308,088

TRAINING & PROFESSIONAL DEVELOPMENT

Item	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Teacher Training Academy	$15,000	$15,000	$15,000	$15,000	$15,000
Academy Trainers	$2,000	$2,000	$2,000	$2,000	$2,000
Teacher On Special Assignment	$0	$72,000	$72,000	$72,000	$72,000
	$17,000	$89,000	$89,000	$89,000	$89,000

TOTAL 1:1 INITIATIVE COSTS

Item	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	TOTAL
Student Computers & Equipment	$118,000	$293,550	$612,300	$738,948	$308,088	$2,070,886
Teacher Training Academy	$15,000	$15,000	$15,000	$15,000	$15,000	$75,000
Academy Trainers	$2,000	$2,000	$2,000	$2,000	$2,000	$10,000
Teacher On Special Assignment	$0	$72,000	$72,000	$72,000	$72,000	$288,000
	$135,000	$382,550	$701,300	$827,948	$397,088	$2,443,886

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[3] Estimated costs as of 4/1/2012

OPERATIONAL & LOGISTICAL PLAN

The following is a summary of the guidelines that are more clearly defined via the 21st Century Teaching & Learning Initiative Guidelines, which will be distributed to students when they receive their assigned portable computer.

21ST CENTURY TEACHING & LEARNING STEERING COMMITTEE

Establish a committee representing all stakeholders of the district, such as students, teachers, parents, administrators, board members, and the community. The committee will meet four times per year in September, November, February, and May, and will continue to serve for the duration of the initiative.

1. Toby Albanese – Principal
2. Tom Andrezjewski – Principal
3. Ravi Bala – Parent
4. Lisa Cuskey – Teacher
5. Dana Finore – Student
6. Andrew Ge – Student
7. Alayne Greenberg – Parent
8. Joann Groark – Teacher
9. Susan Incorvia – Co-Chair
10. Himovath Jois – Student
11. Dianne Krause – Staff Developer
12. John McGowan – Administration Co-Chair
13. Charles McIntyre – Board Member
14. Colleen Meulstee – Teacher
15. Jenn Palubinski – Teacher
16. Burunda Prince-Jones – Board Member
17. Pete Shoemaker – Teacher
18. Jim Shoemaker – Teacher
19. Shirley White – Community Member
20. Whit Yost – Teacher

EXPECTATIONS & REQUIREMENTS

- All students must keep their portable computer in the supplied case. No other cases may be substituted.
- All students must have paid, or received via scholarship, their annual insurance before portable computer is assigned in September.
- Students must have parent/guardian sign annual 1:1 Acceptable Use form before portable computer is assigned.
- In the event a student is having problems with their portable computer, teachers will allow students to drop off their computer and pick up a spare at the help desk during class.

PROCEDURES & GUIDELINES

The district will create a 21st Century Teaching and Learning Initiative Guidelines document for student and parents. Within this document details will be given regarding the procedures and expectations, as well as answers to common questions.

PROCEDURES FOR DAMAGED OR LOST COMPUTER

Students and their parents/guardians must complete a computer equipment loan form and pay the insurance fee before the portable computer will be allowed to leave the school building.

SUMMER USE

In order to perform annual maintenance on the portable computers for the start of school, student computers will be collected the last week of school and returned to the student in September. Unless the student is eligible for extended school year services, no district-issued computer will be allowed to go home with students over the summer.

INSURANCE

There are several options for insuring student computers. The administration recommends the district design a self-insured model since this 1:1 initiative is going to be a phased implementation over five years. This model also provides a lower cost. The model should be re-evaluated on an annual basis to ensure it is still cost-effective and meeting the needs of the students and district. An annual insurance and equipment fee of $20 will be assessed to each middle school student participating in the initiative and $40 to each high school student. Research shows that students care for and respect the equipment better when there is a financial stake in the equipment.

Item	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Self-Insured Model @ $20-$40 per student	$0	$14,000	$23,400	$41,400	$13,400
Approximate # of replaced devices	0	36	61	108	35

LEGAL

Over the past couple of years the board has approved new policies or modifications to policies related to technology. Since technology changes so rapidly, existing policies will need to be revisited. The 21st Century Teaching & Learning Initiative will also require the administration, solicitor, and school board to develop specific policies. Additionally, permission slips and forms will need to be designed to meet the district's needs.

BOARD POLICIES

The current policies relating to technology are listed below:

- 256, 356, 453, 546, 826 – Use of District Information and Telecommunications Resources
- 814 – Copyright Material
- 814.1 – Software Installation and Usage Copyright and Licensing
- TBD – District-Issued Laptops Student Use, Rights And Responsibility (Pending May 2012 Board Approval)

Additional policy or policies may need to be developed, specifically targeting the 21st Century Teaching & Learning Initiative, and will be reviewed on an annual basis.

Action Item	Responsible Parties	Due Date
Review existing policies	· Director of Technology · Solicitor	December 2011
Develop procedures and form for reporting damaged computers	· Director of Technology	August 2012
Recommend insurance plan for board approval	· Steering Committee · Director of Technology	May 2012
Develop milestone timeline	· Director of Technology	February 2012 - Ongoing
Develop a policy targeting the 1:1 initiative	· Director of Technology · Solicitor	March 2012
Bring forth policies for consideration to Policy Committee	· Director of Technology · Solicitor	April 2012
Approval of modified and new policies	· School Board	May 2012

INITIATIVE MILESTONES TIMELINE

From a planning and logistical perspective, a clear timeline will be developed to keep stakeholders abreast of the major milestones scheduled for the initiative. The timeline will also be an important artifact for the Communications & Public Relations Plan.

EARLY TEACHER DELL LAPTOP ROLLOUT

Teacher laptops are scheduled to be replaced in July 2012. These laptops will be five-years old. The goal is to reduce this to a four-year replacement plan for all portable computers and keep desktops on a five-year plan. In order to help with the migration of MacBooks to the Windows platform, the plan is to replace some of the teacher MacBooks in Spring 2012 so we can make any adjustments that may be necessary in training and software images before a full-scale rollout.

PHYSICAL SECURITY

The security of the portable computer, during and beyond the school day, will be the responsibility of the student. Students will be expected to secure their computer in their lockers when appropriate.

PORTABLE COMPUTER BAGS

Students will be assigned bags specifically designed to protect their assigned portable computer and allow the operation of the computer without needing to remove it from the case. The mini laptop bag holds one netbook and has a slot for a student's ID card. The bags in most cases will fit in a standard schoolbag. The bags will be embroidered with the Wissahickon School District logo.

For larger portable computers, the district will provide a case that meets the protection expectations of the technology department.

TECHNOLOGY STANDARDS

The International Society for Technology in Education (ISTE) developed the National Educational Technology Standards (NETS) with input from the field and pioneered their use among educators.

The NETS are the standards for learning, teaching, and leading in the digital age and are widely recognized and adopted worldwide. The family of NETS—NETS for Students (NETS•S), NETS for Teachers (NETS•T), NETS for Administrators (NETS•A), NETS for Coaches (NETS•C), and NETS for Computer Science Teachers (NETS•CSE)–work together to transform education.

Technology has forever changed not only what we need to learn, but the way we learn. The NETS set a standard of excellence and best practices in learning, teaching, and leading with technology in education. The benefits of using the NETS include:

- Improving higher-order thinking skills, such as problem solving, critical thinking, and creativity
- Preparing students for their future in a competitive global job market
- Designing student-centered, project-based, and online learning environments
- Guiding systemic change in our schools to create digital places of learning
- Inspiring digital age professional models for working, collaborating, and decision making

NETS FOR STUDENTS (NETS•S) – DIGITAL AGE LEARNING

ISTE's NETS for Students (NETS•S) are the standards for evaluating the skills and knowledge students need to learn effectively and live productively in an increasingly global and digital world.

Simply being able to use technology is no longer enough. Today's students need to be able to use technology to analyze, learn, and explore. Digital age skills are vital for preparing students to work, live, and contribute to the social and civic fabric of their communities.
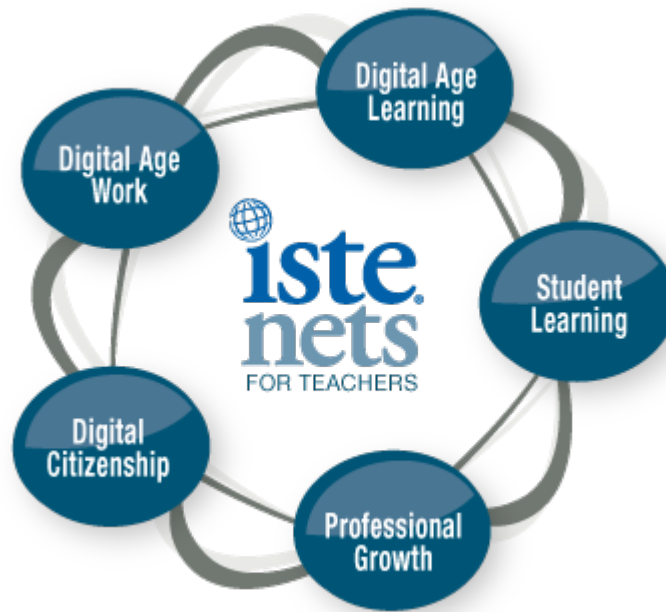

1. Creativity and Innovation – Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
    1a. Apply existing knowledge to generate new ideas, products, or processes
    1b. Create original works as a means of personal or group expression
    1c. Use models and simulations to explore complex systems and issues
    1d. Identify trends and forecast possibilities
2. Communication and Collaboration – Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
    2a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
    2b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats
    2c. Develop cultural understanding and global awareness by engaging with learners of other cultures
    2d. Contribute to project teams to produce original works or solve problems
3. Research and Information Fluency – Students apply digital tools to gather, evaluate, and use information.
    3a. Plan strategies to guide inquiry
    3b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
    3c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
    3d. Process data and report results
4. Critical Thinking, Problem Solving, and Decision Making – Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
    4a. Identify and define authentic problems and significant questions for investigation
    4b. Plan and manage activities to develop a solution or complete a project
    4c. Collect and analyze data to identify solutions and/or make informed decisions
    4d. Use multiple processes and diverse perspectives to explore alternative solutions

5. Digital Citizenship – Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
   5a.   Advocate and practice safe, legal, and responsible use of information and technology
   5b.   Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
   5c.   Demonstrate personal responsibility for lifelong learning
   5d.   Exhibit leadership for digital citizenship
6. Technology Operations and Concepts – Students demonstrate a sound understanding of technology concepts, systems, and operations.
   6a.   Understand and use technology systems
   6b.   Select and use applications effectively and productively
   6c.   Troubleshoot systems and applications
   6d.   Transfer current knowledge to learning of new technologies

NETS FOR TEACHERS (NETS•T) – DIGITAL AGE TEACHING

ISTE's NETS for Teachers (NETS•T) are the standards for evaluating the skills and knowledge educators need to teach, work, and learn in an increasingly connected global and digital society.

As technology integration continues to increase in our society, it is paramount that teachers possess the skills and behaviors of digital age professionals. Moving forward, teachers must become comfortable being co-learners with their students and colleagues around the world.

1. Facilitate and Inspire Student Learning and Creativity – Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.
   - 1a. Promote, support, and model creative and innovative thinking and inventiveness
   - 1b. Engage students in exploring real-world issues and solving authentic problems using digital tools and resources
   - 1c. Promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes
   - 1d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments
2. Design and Develop Digital Age Learning Experiences and Assessments – Teachers design, develop, and evaluate authentic learning experiences and assessment incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS·S.
   - 2a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
   - 2b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress
   - 2c. Customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources
   - 2d. Provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

3. Model Digital Age Work and Learning – Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.
   - 3a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
   - 3b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
   - 3c. Communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital age media and formats
   - 3d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning
4. Promote and Model Digital Citizenship and Responsibility – Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices.
   - 4a. Advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources
   - 4b. Address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources
   - 4c. Promote and model digital etiquette and responsible social interactions related to the use of technology and information
   - 4d. Develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital age communication and collaboration tools
5. Engage in Professional Growth and Leadership – Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources.
   - 5a. Participate in local and global learning communities to explore creative applications of technology to improve student learning
   - 5b. Exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others
   - 5c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
   - 5d. Contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community

ISTE's NETS for Administrators (NETS•A) are the standards for evaluating the skills and knowledge school administrators and leaders need to support digital age learning, implement technology, and transform the education landscape.

Transforming schools into digital age places of learning requires leadership from people who can accept new challenges and embrace new opportunities. Now more than ever, the success of technology integration depends on leaders who can implement systemic reform in our schools.

1. Visionary Leadership – Educational Administrators inspire and lead development and implementation of a shared vision for comprehensive integration of technology to promote excellence and support transformation throughout the organization.
    1a.   Inspire and facilitate among all stakeholders a shared vision of purposeful change that maximizes use of digital-age resources to meet and exceed learning goals, support effective instructional practice, and maximize performance of district and school leaders
    1b.   Engage in an ongoing process to develop, implement, and communicate technology-infused strategic plans aligned with a shared vision
    1c.   Advocate on local, state and national levels for policies, programs, and funding to support implementation of a technology-infused vision and strategic plan
2. Digital Age Learning Culture – Educational Administrators create, promote, and sustain a dynamic, digital-age learning culture that provides a rigorous, relevant, and engaging education for all students.
    2a.   Ensure instructional innovation focused on continuous improvement of digital-age learning
    2b.   Model and promote the frequent and effective use of technology for learning
    2c.   Provide learner-centered environments equipped with technology and learning resources to meet the individual, diverse needs of all learners
    2d.   Ensure effective practice in the study of technology and its infusion across the curriculum
    2e.   Promote and participate in local, national, and global learning communities that stimulate innovation, creativity, and digital age collaboration

3. Excellence in Professional Practice – Educational Administrators promote an environment of professional learning and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and digital resources.
   - 3a. Allocate time, resources, and access to ensure ongoing professional growth in technology fluency and integration
   - 3b. Facilitate and participate in learning communities that stimulate, nurture and support administrators, faculty, and staff in the study and use of technology
   - 3c. Promote and model effective communication and collaboration among stakeholders using digital age tools
   - 3d. Stay abreast of educational research and emerging trends regarding effective use of technology and encourage evaluation of new technologies for their potential to improve student learning
4. Systemic Improvement – Educational Administrators provide digital age leadership and management to continuously improve the organization through the effective use of information and technology resources.
   - 4a. Lead purposeful change to maximize the achievement of learning goals through the appropriate use of technology and media-rich resources
   - 4b. Collaborate to establish metrics, collect and analyze data, interpret results, and share findings to improve staff performance and student learning
   - 4c. Recruit and retain highly competent personnel who use technology creatively and proficiently to advance academic and operational goals
   - 4d. Establish and leverage strategic partnerships to support systemic improvement
   - 4e. Establish and maintain a robust infrastructure for technology including integrated, interoperable technology systems to support management, operations, teaching, and learning
5. Digital Citizenship – Educational Administrators model and facilitate understanding of social, ethical and legal issues and responsibilities related to an evolving digital culture.
   - 5a. Ensure equitable access to appropriate digital tools and resources to meet the needs of all learners
   - 5b. Promote, model and establish policies for safe, legal, and ethical use of digital information and technology
   - 5c. Promote and model responsible social interactions related to the use of technology and information
   - 5d. Model and facilitate the development of a shared cultural understanding and involvement in global issues through the use of contemporary communication and collaboration tools

GOAL: TEACHERS WILL HAVE ACCESS TO A COMPREHENSIVE PROGRAM OF PROFESSIONAL DEVELOPMENT THAT WILL TRAIN THEM TO USE TECHNOLOGY AS AN INTEGRAL TOOL TO ENHANCE TEACHING AND LEARNING.

OBJECTIVE: TEACHERS WILL BE ABLE TO DEVELOP LESSONS THAT WILL ALLOW STUDENTS TO MEANINGFULLY INTEGRATE TECHNOLOGY.

Activities	Responsible Parties	Timeline
Develop professional development modules to be offered during in-service days, workshops, posted on the eToolbox, and special summer institutes.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach	Phase 1 – June 2012 Phase 2 – August 2012 Phase 3 – June 2013
Investigate a partnership with an accredited university/college to provide a 21st Century Teaching program for WSD teachers	· Director of Technology · Director of Secondary Teaching & Learning · Assistant Superintendent	November 2012
Identify teachers to serve as 21st Century Teaching & Learning mentors and train these teachers to help facilitate workshops and model the integration of technology in their classrooms	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer	June 2012
Structure training sessions to target specific curricular areas and grade levels to make sessions more meaningful versus one-size-fits-all. Provide follow-up opportunities for teachers to strengthen their technological skills.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach · Department Chairs	January 2013
Provide technology coaches to provide training, plan instruction with teachers, and work with teachers and students within the classroom during the school day.	· Director of Technology · Director of Secondary Teaching & Learning · Director of Personnel · Assistant Superintendent	July 2012

BENCHMARKS

· By June 2013, 20% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.

· By June 2014, 40% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.

· By June 2015, 80% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.

· By June 2016, 98% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas as measured by the specific assessments conducted for each targeted grade.

TARGET GROUP

The target groups for this objective include 21st Century Teaching & Learning Initiative teachers and students. Key participants include the 21st Century Teaching & Learning mentors, teachers, and administrators.

The 21st Century Teaching & Learning Steering Committee will review data from the Technology Department staff that summarizes Technology Use Survey results, feedback from the 21st Century Teaching & Learning teachers, students and parents, administrators, and technology staff concerning the effectiveness of the implementation of the technology professional development program.

OBJECTIVE: TEACHERS AT ALL LEVELS WILL BE ABLE TO RECOGNIZE AND USE INSTRUCTIONAL TECHNOLOGIES FOR TEACHING CRITICAL-THINKING AND PROBLEM-SOLVING SKILLS TO ENHANCE STUDENT ACHIEVEMENT.

Activities	Responsible Parties	Timeline
Teachers will collaborate with technology coaches and 21st Century Teaching & Learning mentors, and other grade level teachers/content site teams to develop strategies to appropriately integrate technology into their lesson plans and classroom activities.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Teachers will implement the strategies they have developed to provide training to their students through the content areas, so that students become proficient in information and technology literacy skills at their appropriate grade level.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Teachers will review their progress and student outcomes with their building principals. Needs for training, technical assistance and support are identified.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Assistance and training will be provided to teachers as needed to help them appropriately integrate technology into their classes to ensure that students become proficient in the information and technological literacy skills at their appropriate grade level. Technology integration activities for students may include: project-based learning, collaborative projects, investigations, and simulations, based on high-order thinking and 21st Century Skills.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors	August 2012 – Ongoing

BENCHMARKS

- By June 2013, 20% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.
- By June 2014, 40% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.

- By June 2015, 80% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.
- By June 2016, 98% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.

TARGET GROUP

The target groups for this objective include K-12 students, teachers and site administrators who utilize the district technology skills standards in curriculum development and classroom activities.

PROCESS FOR MONITORING

The 21st Century Teaching & Learning Steering Committee members will review summary reports from Technology Department staff that summarize yearly reports from site administrators, technology survey, and technology data reported to the State Technology Survey each year. The committee will use this data to assess the amount of training students have received to become proficient with district information and technological literacy skills standards. The committee also will review changes in scores on assessments of students' technology literacy skills at grades 8 and 12 to assess the instruction that students received, and will report its findings to the Committee.

> TEACHERS WILL SUPPORT THEIR CLASSROOM ENVIRONMENTS WITH MULTIPLE ASSESSMENTS SUCH AS, PROJECT-BASED LEARNING, CROSS-CURRICULAR PROJECTS, AND COLLABORATIVE LEARNING.

Activities	Responsible Parties	Timeline
Teachers will collaborate with technology coaches and 21st Century Teaching & Learning mentors, and other grade level teachers/content site teams to develop strategies to appropriately integrate technology into their lesson plans and classroom activities.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Teachers will implement the strategies they have developed to provide training to their students through the content areas, so that students become proficient in information and technology literacy skills at their appropriate grade level.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Teachers will review their progress and student outcomes with their building principals. Needs for training, technical assistance and support are identified.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Assistance and training will be provided to teachers as needed to help them appropriately integrate technology into their classes to ensure	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals	August 2012 – Ongoing

that students become proficient in the information and technological literacy skills at their appropriate grade level. Technology integration activities for students may include: project-based learning, collaborative projects, investigations, and simulations, based on high-order thinking and 21st Century Skills.	· K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors

BENCHMARKS

- By June 2013, 20% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.
- By June 2014, 40% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.
- By June 2015, 80% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.
- By June 2016, 98% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.

TARGET GROUP

The target groups for this objective includes K-12 students, teachers and site administrators who utilize the district technology skills standards in curriculum development and classroom activities.

PROCESS FOR MONITORING

The 21st Century Teaching and Learning Steering Committee members will review summary reports from Technology Department staff that summarize yearly reports from site administrators, technology survey, and technology data reported to the State Technology Survey each year. The committee will use this data to assess the amount of training students have received to become proficient with district information and technological literacy skills standards. The committee also will review changes in scores on assessments of students' technology literacy skills at grades 8 and 12 to assess the instruction that students received, and will report its findings to the Committee.

GOAL: ALL STUDENTS WILL ACQUIRE AND USE TECHNOLOGY AND DIGITAL LITERACY SKILLS THAT WILL PREPARE THEM FOR THE 21ST CENTURY.

OBJECTIVE: STUDENTS WILL EFFECTIVELY USE TECHNOLOGY TO ACCESS, COMMUNICATE, AND APPLY KNOWLEDGE AND TO FOSTER CREATIVITY.

Activities	Responsible Parties	Timeline
Design and provide daytime and evening workshops where students & parents will be acquainted with the hardware and software available through the initiative.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach	July 2012
Design and develop an orientation module for students in 6th and 9th grades that will build the technical skills necessary.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach	September 2012
Develop and distribute an assessment to measure students' appropriate use of technology in the learning process.	· Director of Technology · Director of Secondary Teaching & Learning	Last marking period 6th grade 1st semester 12th grade
Develop and distribute an assessment to measure students' knowledge and application as related to specific state Core Standards	· Director of Technology · Director of Secondary Teaching & Learning	Develop – 2014-2015 School Year Distribute – 2013-2014

BENCHMARKS

- By Fall 2012, a workshop will be designed for parents.
- By Spring 2013, a parent workshop will be held for both middle school and high school parents.

TARGET GROUP

The target group for this objective includes 6-12 students and their parents/guardians.

PROCESS FOR MONITORING

The 21st Century Teaching & Learning Steering Committee will review reports from the Technology Department staff that summarize data on the assessed proficiency of students with regard to meeting the established technology standards for identified grade levels, as measured by the specific assessments conducted for each targeted grade.

OBJECTIVE: BY JUNE 2016, THE DISTRICT WILL PROVIDE TO ALL SECONDARY SCHOOL STUDENTS, HARDWARE, SOFTWARE, AND ONLINE LEARNING TOOLS THAT PROVIDE ACCESS TO RICH CONTENT RESOURCES AND IS ALIGNED TO ACADEMIC CONTENT STANDARDS.

Activities	Responsible Parties	Timeline
Evaluate existing and proposed instructional software and online learning tools for quality of resources and alignment to state and district content standards.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Teachers	August 2012 - Ongoing
Students utilize instructional technology to access rich content resources aligned with academic content standards. Technology to be utilized may include portable computers, Internet access, word processing, spreadsheet, and academic subject-specific software applications.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Teachers · 21st Century Teaching & Learning Students	Ongoing
Purchase a mobile computing device for students as per the scheduled phasing of the initiative.	· Director of Technology · Assistant Superintendent · Network & Systems Administrator	May 2012 – July 2015
Provide collaboration and productivity software to students to meet the goals and standards established in this plan.	· Director of Technology · Assistant Superintendent · Network & Systems Administrator	July 2012
Acquire additional computers and academic software to maintain the desired refresh rate.	· Director of Technology · Assistant Superintendent · Network & Systems Administrator	May 2012 – July 2015
Develop and maintain 21st Century Teaching & Learning interactive classrooms.	· Director of Technology · Assistant Superintendent · Network & Systems Administrator	May 2012 – July 2015

BENCHMARKS

Need to address all activities

- By June 2013, 20% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.
- By June 2014, 40% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.
- By June 2015, 80% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.
- By June 2016, 98% of district students will use computers at a one-to-one ratio on a regular basis, as measured by site reports and the State Technology Survey.

PROCESS FOR MONITORING

The 21st Century Teaching & Learning Steering Committee will review reports from the Technology Department staff that summarize data on the assessed proficiency of students with regard to meeting the established technology standards for identified grade levels, as measured by the specific assessments conducted for each targeted grade.

TARGET GROUP

The target groups for this objective include 21st Century Teaching & Learning students.

> **OBJECTIVE: BY JUNE 2016, ALL SECONDARY STUDENTS WILL DEMONSTRATE THE ABILITY TO UTILIZE GRADE-LEVEL APPROPRIATE COMPUTER SKILLS AND INFORMATION AND COMMUNICATIONS APPLICATIONS TO RESEARCH AND PRESENT THEIR WORK.**

Activities	Responsible Parties	Timeline
Review District Competencies for Technology Proficiency for specific skills standards for technology at each grade level of the 21st Century Teaching & Learning implementation. Identify methods to pre-assess student proficiency in meeting established technology standards.	· Director of Technology · Director of Secondary Teaching & Learning · Assistant Superintendent	October 2012
Assess student's proficiency in meeting the established technology standards for each targeted grade.	· Director of Technology · Director of Secondary Teaching & Learning · Assistant Superintendent	Spring of each year
Provide orientation and training for students on the hardware and software assigned to them.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach	September of each year
Provide a pre-training assessment to students.	· Director of Technology · Director of Secondary Teaching & Learning	Fall of each year
Develop and distribute a year-end survey to students to analyze skill development.	· Director of Technology · Director of Secondary Teaching & Learning	Spring 2013

BENCHMARKS

- By June 2013, 20% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.
- By June 2014, 30% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.
- By June 2015, 80% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.
- By June 2016, 98% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas as measured by the specific assessments conducted for each targeted grade.

TARGET GROUP

The target groups for this objective include students, teachers and site instruction leaders. Key participants include the 21st Century Teaching & Learning Teachers and 21st Century Teaching & Learning teachers, Ed Tech Resource Teachers and administrators.

The 21 Century Teaching & Learning Steering Committee will review reports from the Technology Department and Curriculum Department that summarize Technology Use Survey results, reports from the 21st Century Teaching & Learning teachers, Technology staff and classroom observations. The committee also will review reports from the Technology Department that summarize data on the assessed proficiency of students at meeting the established technology standards for identified grade levels, as measured by the specific assessments conducted for each targeted grade.

OBJECTIVE: BY JUNE 2016, 98% OF ALL STUDENTS WILL RECEIVE INSTRUCTION THROUGH THE INTEGRATION OF TECHNOLOGY IN THE ACADEMIC CONTENT AREAS TO BECOME PROFICIENT WITH THE TECHNOLOGICAL LITERACY SKILLS IN THE DISTRICT SCOPE AND SEQUENCE AT THE 8TH AND 11TH GRADES.

Activities	Responsible Parties	Timeline
Teachers will collaborate with technology coaches and 21st Century Teaching & Learning mentors and other grade level teachers/content site teams to develop strategies to appropriately integrate technology into their lesson plans and classroom activities.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Teachers will implement the strategies they have developed to provide training to their students through the content areas, so that students become proficient in the information and technological literacy skills at their appropriate grade level.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Teachers review their progress and student outcomes with their building principals. Needs for training, technical assistance and support are identified.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Teachers	August 2012 – Ongoing
Assistance and training will be provided to teachers as needed to help them appropriately integrate technology into their classes to ensure that students become proficient in the information and technological literacy skills at their appropriate grade level. Technology integration activities for students may include: project-based learning, collaborative projects, investigations, and simulations, based on high-order thinking and 21st Century Skills.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors	August 2012 – Ongoing

BENCHMARKS

- By June 2013, 20% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.
- By June 2014, 40% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.
- By June 2015, 80% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.

- By June 2016, 98% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.
- By June 2015, 98% of students will receive instruction through integration of technology in the academic content areas to become proficient with the information and technological literacy skills in the district scope and sequence at 8th grade, as measured by assessment of students' technology literacy skills in grade 8.

TARGET GROUP

The target groups for this objective include 21st Century Teaching & Learning students and teachers who integrate technology into the teaching and learning environment and classroom activities.

PROCESS FOR MONITORING

The 21st Century Teaching & Learning Steering Committee will review reports from the Technology Department and Curriculum Department that summarize Technology Use Survey results, reports from the 21st Century Teaching & Learning teachers, Technology staff and classroom observations. The committee also will review reports from the Technology Department that summarize data on the assessed proficiency of students at meeting the established technology standards for identified grade levels, as measured by the specific assessments conducted for each targeted grade.

GOAL: CONNECTIONS BETWEEN SCHOOL AND COMMUNITY WILL BE DEVELOPED THROUGH THE USE OF TECHNOLOGY TO SUPPORT DIGITAL COMMUNICATION AND LITERACY.

OBJECTIVE: TEACHERS WILL CREATE AND USE AN ONLINE PRESENCE FOR THEIR CLASSROOM, SUCH AS A WEBSITE, MOODLE COURSE, OR WIKISPACE.

Activities	Responsible Parties	Timeline
The district will provide and support specific web-based online learning management environments.	· Director of Technology	Fall 2012
Training will be provided to teachers on district-supported software and the software teachers select that best meets the needs of their classroom environment.	· Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors · 21st Century Teaching & Learning Teachers	Ongoing
Online training resources will be provided to students so they can become familiar with the learning management environment their teacher(s) are using.	· K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors · 21st Century Teaching & Learning Teachers	Fall 2012

BENCHMARKS

- By June 2013, 25% of secondary level teachers will have an online presence to support their classes.
- By June 2014, 50% of secondary level teachers will have an online presence to support their classes
- By June 2015, 75% of secondary level teachers will have an online presence to support their classes.
- By June 2016, 100% of secondary level teachers will have an online presence to support their classes.

PROCESS FOR MONITORING

Online presence pages will be linked on the district directory on the district website.

TARGET GROUP

The target groups for this objective include 21st Century Teaching & Learning students, librarians and teachers who incorporate information about appropriate and ethical use of information technology in curriculum development and classroom activities.

GOAL: TEACHERS, STUDENTS, AND COMMUNITY WILL USE TECHNOLOGY APPROPRIATELY AND EFFECTIVELY

OBJECTIVE: STUDENTS AND TEACHERS WILL BE ABLE TO UTILIZE THE SKILLS NECESSARY FOR INTERNET SAFETY TO PROTECT THEIR ONLINE PRIVACY AND AVOID ONLINE PREDATORS.

Activities	Responsible Parties	Timeline
Develop informational materials on the appropriate and ethical use of information technology; integrate this information into the curriculum across the content areas.	• Director of Technology • Director of Secondary Teaching & Learning • K-12 Technology Staff Developer • Technology Coach	Summer 2012
Distribute informational materials on the appropriate and ethical use of information technology to all teachers for use in the classroom. Provide more in-depth training in the appropriate and ethical use of information technology during regular Educational Technology training sessions.	• Director of Technology • Director of Secondary Teaching & Learning • Building Principals • K-12 Technology Staff Developer • Technology Coach • 21st Century Teaching & Learning Mentors	September of each school year
Implement instruction in the appropriate and ethical use of information technology in grades 6-12.	• Director of Technology • Director of Secondary Teaching & Learning • Building Principals • K-12 Technology Staff Developer • Technology Coach • Library Media Specialists • 21st Century Teaching & Learning Mentors	September of each school year

BENCHMARKS

- By June 2013, 20% of district students will report via a student technology survey that they have received instruction regarding the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works.
- By June 2014, 40% of district students will report via a student technology survey that they have received instruction regarding the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works.
- By June 2015, 80% of district students will report via a student technology survey that they have received instruction regarding the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works.
- By June 2016, 98% of district students will report via a student technology survey that they have received instruction regarding the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works.

TARGET GROUP

The target groups for this objective include 21st Century Teaching & Learning students, librarians and teachers who incorporate information about appropriate and ethical use of information technology in curriculum development and classroom activities.

The 21st Century Teaching & Learning Steering Committee will review reports from the Technology Department that summarize yearly feedback and surveys. The District will use this data to assess the amount of training students have received to understand appropriate and ethical use of information technology.

> OBJECTIVE: STUDENTS WILL RECEIVE INSTRUCTION IN THE APPROPRIATE AND ETHICAL USE OF INFORMATION TECHNOLOGY INCLUDING THE CONCEPT AND PURPOSE OF BOTH COPYRIGHT AND FAIR USE, AND THE NEED TO REFRAIN FROM COPYRIGHT INFRINGEMENT, AND PLAGIARISM.

Activities	Responsible Parties	Timeline
Develop informational materials on the appropriate and ethical use of information technology; integrate this information into the curriculum across the content areas.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach	Summer 2012
Students will receive instruction on the appropriate and ethical use of information integrated through trainings related to technology and 21st Century Skills.	· Director of Technology · Director of Secondary Teaching & Learning · K-12 Technology Staff Developer · Technology Coach	Fall 2012
Distribute informational materials on the appropriate and ethical use of information technology to all teachers for use in the classroom. Provide more in-depth training in the appropriate and ethical use of information technology during regular Educational Technology training sessions.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · 21st Century Teaching & Learning Mentors	September of each school year
Implement instruction in the appropriate and ethical use of information technology in grades 6-12.	· Director of Technology · Director of Secondary Teaching & Learning · Building Principals · K-12 Technology Staff Developer · Technology Coach · Library Media Specialists · 21st Century Teaching & Learning Mentors	September of each school year

BENCHMARKS

- By June 2013, 20% of district students will report via a student technology survey that they have received instruction regarding Internet safety, protecting online privacy and avoiding online predators.
- By June 2014, 40% of district students will report via a student technology survey that they have received instruction regarding Internet safety, protecting online privacy and avoiding online predators.
- By June 2015, 80% of district students will report via a student technology survey that they have received instruction regarding Internet safety, protecting online privacy and avoiding online predators.
- By June 2016, 98% of district students will report via a student technology survey that they have received instruction regarding Internet safety, protecting online privacy and avoiding online predators.

TARGET GROUP

The target groups for this objective include 21st Century Teaching & Learning students, librarians and teachers who incorporate information about copyright and plagiarism in curriculum development and classroom activities.

The 21st Century Teaching & Learning Steering Committee will review reports from the Technology Department that summarize yearly feedback and surveys. The district will use this data to assess the amount of training students have received to understand appropriate and ethical use of information technology.

CURRICULUM

All curricular areas follow a five-year curriculum review cycle. The areas are staggered so that there is distribution across them. There are five stages in the cycle:

- Stage One – Assess, Research & Development
- Stage Two – Continued Development & Field Study
- Stage Three – Initial Implementation & Professional Development
- Stage Four – Full Implementation
- Stage Five – Evaluation & Monitoring

As an academic area enters Stages One or Two, the curriculum will be reviewed with keeping in mind the goals and objectives of the 21st Century Teaching & Learning Initiative and National Educational Technology Standards, as well as the core state standards.

IMAGE & SOFTWARE

A standard image for both student and teacher computers have been established. The district entered a five-year agreement with Microsoft that coincides with this initiative.

CHARGING/BATTERIES

The netbook battery will last approximately 4-8 hours depending on usage. Students are expected to arrive at school with a fully charged computer. Students will be trained on the best practices to achieve the longest battery life possible. In the event a battery still needs to be charged, small charging stations will be deployed throughout the building in specified locations.

WI-FI CONTROLLERS

The wireless network controllers are scheduled to be upgraded during the summer of 2012 to accommodate additional access points, and the additional bandwidth associated with the additional computers. The wireless network traffic will be monitored and additional access points will be deployed as required to provide reliable and efficient connection to resources.

INFRASTRUCTURE

The core switch at the network operations center has been updated, and the core switches at the HS and MS have been upgraded to handle the additional amount of bandwidth required to provide adequate resources and connections back to the network operations center at the administration building.

INTERNET ACCESS FOR HOME

Internet access will not be provided to students for their homes. The district investigated partnerships with wireless data providers, the data plans were approximately $30/month per device. Even providing this service as a subsidy to qualifying students is extremely costly. As of the time of this plan, Comcast is offering a special promotional price of $10/month for high-speed Internet service. The program, called Internet Essentials, has no activation or equipment rental fees. www.internetessentials.com

SHAREPOINT

SharePoint 2010 is currently in the evaluation phase of deployment, with plans to deploy for the initial 6th and 9th grade computer deployment in the Fall of 2012.

LYNC

Lync 2010 has been installed, configured and deployed to teachers. This is an Instant Message (IM), Audio, and Video chat server to collaborate between classes, and for remote tech support. This software will be evaluated as a possible tool for students.

STORAGE CONSIDERATIONS

Students will continue to use their personal network folders to store their work. This storage location is backed up nightly to prevent data loss. The Storage Area Network (SAN) is scheduled for replacement in the summer of 2013 to accommodate the additional storage requirements.

DURING SCHOOL

Students requiring hardware or software support for their computers will be able to drop them off to a predetermined location and will receive a loaner computer to take to class. The technology assistant Responsible Parties the help desk will take the necessary steps to resolve the issue. Students will be able to see the status of their computer posted on an intranet page so they will know when they can visit the help desk to swap out the loaner for their computer.

AFTER HOURS

For students having technical issues after the school day, a student support/resource page will be developed and made available. The page will list frequently asked questions and common troubleshooting solutions related to the hardware and software used in this initiative. Basic troubleshooting tips will have been addressed in the student training sessions provided to all sixth and ninth grade students.

PASSWORD RESETS

Students who forget their network passwords will be able to reset them via a set of security questions for which they had previously provided answers. This will be available at the logon screen, so students will be able to do from their own assigned computer. This may not be available during the first year of implementation.

SECURITY POLICIES

END USER DEVICE

Devices have policies to limit the users from accidently or maliciously effecting the functionality of the software on the computer.

SERVERS

Servers do not have any additional services then is necessary for the server to run the specified function it is preforming. Server passwords are secure and known to only a few Technology Department staff. The servers will be monitored for unauthorized access.

NETWORK

Network equipment passwords are secure and known to only a few Technology Department staff. Network equipment will be monitored for unauthorized access.

USER ACCOUNTS

Employee user accounts are created for network, email, voicemail, and copier access as applicable to the employee's duties. Students are only provided with network accounts.

POWER BRICK/BATTERY REPLACEMENT

Spare power bricks and batteries will be ordered and made available to students at the help desk windows in both schools.

It is imperative that all stakeholders are kept informed of the progress of the initiative over the four years of the plan. The district will use all of its media vehicles to keep information flowing on progress.

Communications Vehicle	Features	Stakeholder Audience
21st Century Teaching & Learning Webpage	· General updates on the progress of the initiative · FAQs · Initiative Guidelines · Workshop & Training Dates	· Students · Parents · Teachers · Community
21st Century Teaching & Learning eNewsletter	· Bi-annual newsletter featuring a spotlight on student projects and teacher lessons · Will be posted online and distributed via School Messenger	· Students · Parents · Teachers · Community
Student Showcase	· Student Showcase	· Students · Parents
Teacher Forum Student Forum Parent Forum	· Held throughout the year to collect feedback and share best practices	· Students · Parents · Teachers
Steering Committee	· The steering committee will continue to meet and be a conduit to their representative stakeholders	· Students · Parents · Teachers · Community
21st Century Teaching & Learning Documentary	· A series of video vignettes culminated to share the progress of the initiative	· Students · Parents · Teachers · Community
Secondary TV Studios	· Create a bi-weekly show focused on student reporting on how the initiative is transforming the classroom.	· Students · Teachers

PROFESSIONAL DEVELOPMENT & TRAINING PLAN

In order to successfully implement a 1:1 initiative, training must occur at all levels and with all stakeholders of WSD. Continual and consistent professional development and training for students, teachers, support staff, administrators, and parents are essential to this plan and project. Support must be provided not only at the outset of the plan, but also be ongoing to ensure efficient and effective implementation of the 1:1 plan. This plan outlines how each of the sub-groups of stakeholders will be trained and how professional development will be sustained throughout the years ahead.

STUDENTS

Students will receive training through the 21st Century Teaching & Learning orientation. These will be classes that are mandatory for sixth and ninth graders.

Additional voluntary training sessions will be offered through student parent workshops offered in the summer time and possibly throughout the year.

PARENTS

A workshop for parents will be offered annually to acquaint parents with the student computer and how their child will be using it with the teaching and learning process. The workshop will most likely be offered close to the start of school. Middle school students will be asked to attend the workshop with a parent in order to complete some collaborative activities.

TEACHERS

Teachers will receive ongoing professional development and training throughout this initiative. While the primary mode of delivery will be the use of in-service days, on a limited basis, substitutes will be secured for additional professional development needs.

Additional training may be offered through a summer institute or a potential partnership with a college or university.

CLASSROOM ASSISTANTS & AIDES

Support staff and aides will also receive ongoing training and professional development so that they are able to support the teachers and students in the classroom.

ADMINISTRATORS

Administrators will receive similar training to the teachers, so they can be a resource in assisting their faculties with the 21st Century Teaching & Learning Initiative.

"CRUTCH" SESSIONS

These co-teaching sessions will be available to teachers and can be scheduled with the staff developer or technology coach. The technology trainers will be in the room to help assist teachers when they are trying or implementing new lessons using technology and 21st Century Skills.

MODULES

An online module will be created to provide new teachers and teachers seeking additional support regarding the software and hardware included in the 21st Teaching & Learning Initiative. Multiple modules may be designed as the initiative progresses.

UNIVERSITY PARTNERSHIP

The district is currently pursuing a partnership with a local college or university. The goal is to create a program that provides teachers with extensive training on using technology and teaching in the 21st Century classroom. The program would be developed with the university tailored to meet the goals and the objectives of this initiative. This will be a lengthy process and may not be in place until the second or third year of the initiative, if a successful partnership is created.

RESOURCES

WEB VIDEOS

There have been and there will continue to be tutorial videos created for use by the students and teachers for help in using district technology. These tutorial videos are all linked throughout the eToolBox pages for the specific tools and programs. In addition to the tutorial videos created in-house, the eToolBox also contains links out to tutorial videos created by third parties such as Microsoft, Atomic Learning, etc.

ETOOLBOX

The WSD eToolbox (http://etoolbox.wikispaces.com) is a virtual eToolbox of resources for integrating technology in the classroom. It is a "one-stop-shop" that is full of resources, how-to videos, print directions, use in the classroom, examples and more. This eToolbox is the very first place teachers and students should go to find out how to use not only the software on their computers and various Internet tools, but other technology integration topics such as Digital Citizenship, Problem-Based Learning, Internet Search Strategies, and more.

Activities	Responsible Parties	Due Date
Continue to develop the eToolbox to include pages, resources, tutorials, and examples of student and teacher artifacts.	· K-12 Technology Staff Developer · Technology Coach	On-going
Continue to develop print and video tutorials to aid teachers and students in the use of district technology.	· K-12 Technology Staff Developer · Technology Coach	On-going
Develop training sessions for 6th and 9th grade students and parents.	· K-12 Technology Staff Developer · Technology Coach · Director of Technology · Director of Secondary Teaching & Learning	Summer 2012
Deliver training sessions to the parents and students.	· K-12 Technology Staff Developer · Technology Coach · Director of Technology	Fall 2012
Develop professional development workshops and training sessions for teachers, support staff and administrators.	· K-12 Technology Staff Developer · Technology Coach · Director of Technology · Director of Secondary Teaching & Learning	On-going
Deliver professional development workshops and training sessions to teachers, support staff and administrators.	· K-12 Technology Staff Developer · Technology Coach	On-going
Develop 6th and 9th grade "Boot Camp" training sessions/modules.	· K-12 Technology Staff Developer · Technology Coach · Director of Technology	Summer 2012

39

	· Director of Secondary Teaching & Learning	
Deliver 6th and 9th grade "Boot Camp" sessions/lessons.	· K-12 Technology Staff Developer · Technology Coach	Fall of each school year.
Identify and develop university partnership for professional development.	· Assistant Superintendent · Director of Technology · Director of Secondary Teaching & Learning	Fall 2012

PLEASE NOTE: Some professional development activities may be found in support of specific goals and objectives found elsewhere in this plan.

40