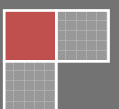


2008-2012

NPPSD Building Level Technology Plan Resources

Four Year Technology Deployment Framework

Technology will not transform the organization of learning in schools until it fundamentally serves the individual learner in the conduct of their everyday learning experience. Technology has yet to make a meaningful, transformative difference in school-based learning environments, but the promise is within our grasp!



The ISTE National Educational Technology Standards (NETS•S) and Performance Indicators for Students

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.
- c. use models and simulations to explore complex systems and issues.
- d. identify trends and forecast possibilities.

2. Communication and Collaboration

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

Students:

- a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
- c. develop cultural understanding and global awareness by engaging with learners of other cultures.
- d. contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information.

Students:

- a. plan strategies to guide inquiry.
- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
- d. process data and report results.

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Students:

- a. identify and define authentic problems and significant questions for investigation.
- b. plan and manage activities to develop a solution or complete a project.
- c. collect and analyze data to identify solutions and/or make informed decisions.
- d. use multiple processes and diverse perspectives to explore alternative solutions.

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

Students:

- a. advocate and practice safe, legal, and responsible use of information and technology.
- b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c. demonstrate personal responsibility for lifelong learning.
- d. exhibit leadership for digital citizenship.

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations.

Students:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.
- c. troubleshoot systems and applications.
- d. transfer current knowledge to learning of new technologies.

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The ISTE National Educational Technology Standards (NETS•T) and Performance Indicators for Teachers

Effective teachers model and apply the National Educational Technology Standards for Students (NETS•S) as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students, colleagues, and the community. All teachers should meet the following standards and performance indicators.

Teachers:

1. Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

Teachers:

- a. promote, support, and model creative and innovative thinking and inventiveness
- b. engage students in exploring real-world issues and solving authentic problems using digital tools and resources
- c. promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes
- d. model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

2. Design and Develop Digital-Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS•S.

Teachers:

- a. design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
- b. develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress
- c. customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources
- d. provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

3. Model Digital-Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.

Teachers:

- a. demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
- b. collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
- c. communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats
- d. model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning

4. Promote and Model Digital Citizenship and Responsibility

Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices.

Teachers:

- a. advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources
- b. address the diverse needs of all learners by using learner-centered strategies and providing equitable access to appropriate digital tools and resources
- c. promote and model digital etiquette and responsible social interactions related to the use of technology and information
- d. develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital-age communication and collaboration tools

5. Engage in Professional Growth and Leadership

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources.

Teachers:

- a. participate in local and global learning communities to explore creative applications of technology to improve student learning
- b. exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others
- c. evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
- d. contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community

System Requirements for Software Purchases

Before the purchase of software for building technology plans, the technology department must have a chance to assess the software's system requirements to determine if the software can be installed in our environment as is. In the past, requirements have been overlooked such as server space and bandwidth requirements. Buildings need to understand that software purchases may have additional hidden costs associated with buying servers and bandwidth to implement the software.

System requirements:

Currently most of the district Windows desktops and laptops have the following specifications which you can compare against the software system requirements.

Processor: Pentium 4 or AMD 64 or higher

Speed: 1.6 GHz or higher

Operating System: Windows XP w/SP2 or greater

Ram: 512mb Ram or higher ram

Video Card with 64mb Ram or higher

Hard Disk: 40 GB or higher

Web Browser: Internet Explorer 6 SP1, Mozilla Firefox 2.0.x or higher

Flash Plugin: Version 8 or higher, Adobe Reader 8.1 or higher, Java 1.6 or higher

Server Space:

It could be determined that a software program will require server space that goes beyond our current capability. The project may require purchase of an additional server(s). The technology department will work with the software vendor to determine system requirements for the server. Then we will relay the additional costs to the buildings.

Bandwidth:

Software that is Internet-Based utilizes a certain amount of district internet bandwidth for each instance of the software that is running. Internet bandwidth is a limited resource but we can and should purchase additional bandwidth when the applications require it. The technology department will work with the software vendor to determine bandwidth requirements for the server. Then we will relay the additional costs to the buildings. Current costs through Qwest are around \$40 per month per additional 1Mbit of Internet bandwidth.

NPPSD Software List

General staff computer configurations - not including special group setups or configurations
(i.e.: SPED, Music, LDC, Assistive Tech, Consumer Science, TLC, Plato, AutoCAD, Administrators, Secretaries, etc)

Applications, Plug-ins, clients, or agents	
- .NET Framework 3.0	large library of pre-coded solutions to common programming problems and configurations
- Adobe Flash (IE and Firefox)	the standard for delivering high-impact, rich Web content
- Adobe Reader 8	PDF reader
- Adobe Shockwave (IE and Firefox)	multimedia player
- Altiris AClient	district imaging client
- Altiris Agent	district imaging agent
- Appleworks 6	apple suite like MS Office – should only be used for retrieval of old files and documents
- Audacity	audio editor and recorder
- Awardmaker	create awards and certificates
- CPS	interactive classroom assessment solution
- CPS for PowerPoint	PowerPoint plug-in for CPS
- EasyTeach Reader	interactive teaching software for EVERY whiteboard
- FirstClass 9	district email client
- Gimp2	image manipulation program
- GoogleEarth	maps and satellite images for complex or pinpointed regional searches
- Hot Potatoes 6	software to build online tutorials
- Inkscape	vector graphics editor, similar to Adobe Illustrator
- Inspiration 8	develops and publishes visual learning software for educators and students
- Internet Explorer 6	internet browser
- InterVideo WinDVD	digital media & audio software products
- iTunes	digital media player application
- Java (IE and Firefox)	API's (application programming interface) for web applications and development
- Jing	always-on screen capture software
- Kidspiration 2	develops and publishes visual learning software for educators and students
- Microsoft Live Meeting	real-time interactive web conferencing solution, similar to webex
- Microsoft Office 2007 Plus	suite of word processing, spreadsheet, PowerPoint, access db, publisher apps
- Microsoft Photo Story 3	photo editing and photo management software
- Mozilla Firefox	internet browser
- Natural Reader 2007	text to speech software for natural voice
- Nvu	WYSIWYG HTML editor
- Picasa 2	photo editing and photo management software
- Plato Prerequisites	Plato Xtras, Adobe Authorware Player
- Primo PDF	printing to PDF from windows systems
- Quicktime	video player
- RealPlayer 11	video player
- Renaissance Place updates (IE and Firefox)	browser plug-ins needed for Renaissance Place
- Roxio Creator	CD and DVD burning software
- Skype	place calls over the internet to other skype users
- SMART Notebook	SMART Board software
- Symantec Antivirus	antivirus application
- TestTaker 6	NWEA- MAPS testing application
- Tux Paint	bitmap graphics editor
- Windows Media Player 11	digital media player application
- Windows XP SP3	window XP Service Pack 3

NPPSD Device List

Brand	Model	Description	Est Cost
Epson	83C	LCD Projector	640.00
Elmo	tt-02s	Document Camera	643.00
Various	Mini DV Camera	Video Camera	400.00
Flip	Flip Video	Video Camera	160.00
RCA	Small Wonder	Video Camera	80.00
Microsoft	VX-1000	Web Cam	30.00
Microsoft	VX-3000	Web Cam	37.00
Microsoft	VX-5000	Web Cam	50.00
Apple	iPod Classic	MP3 Player	249.00
eInstructin	Chalkboard	Wireless Slate	350.00
eInstructon	CPS Clickers/Receivers (32 count)	Interactive Clicker Response system	2,545.00
SMART	Airliner	Wireless Slate	399.00
SMART	680 Portable w/floorstand /bluetooth	Interactive Whiteboard	1,747.00
SMART	680i, 680i2 Wallmount	Interactive Whiteboard w/ built-in projector	4,282.00
AverMedia	AverKey iMicro	PC to TV Converter	96.00
Samsung	SDP-950DXA XGA Digital Presenter	Document Camera	2,640.00
HP	ScanJet 63010	Scanner	100.00
Labtec	Labtec Verse 524	Stick Microphone	9.00
Labtec	Labtec Elite 820	Headphones	12.00
Plantronics	DSP-400	Headset Microphone	50.00

Technology Deployment Checklist

Includes explanation of project. Identifies the goals and objectives for targeted students and how the project will accomplish these objectives/goals.

Includes a specific link to district goals and objectives and explicitly identifies the area of achievement to be addressed in measurable terms.

The project makes explicit and strong links to specific district or PLC curriculum team goals and integrates technology into the core curriculum.

The project makes explicit reference to one or more NETS Standards for teachers and/or students. Specific performance indicators are cited from the NETS Standards.

There are clear indications of what is to be learned and specific methods have been identified to assess individual student learning.

A complete timeline includes professional development with detailed steps to be completed with plans to provide professional development for others.

Budget is thorough. Specific figures are given for each category and budgeted item. The budget request is reasonable in light of overall impact on the number of students to the benefit from the project.

This item is not available with current district resources and/or it will be used in the designated classroom 100% of the time.

Cost of maintenance is low and/or justifiable. This expense is carefully planned for in the budget.

The project contains strong creative, innovative, and collaborative components. It describes how a new teaching technique will stimulate and enhance student learning and instruction.

The technology is supported by the district and has been approved by the technology department.

Resources, associated demands, logistics (budget; professional development; one in every classroom; portability; deployment; etc.) have been considered and plans put in place for deployment.

NPPSD Technology Evaluation Rubric

Category	0	1	2	4	Score Points:
Project Description	No project description	Includes explanation of project.	Includes explanation of project and identifies how the project relates to targeted student needs for academic success.	Includes explanation of project. Identifies the goals and objectives for targeted students and how the project will accomplish these objectives/goals.	
Link to Student Achievement	No clear link identified.	Includes brief explanation of the link to student achievement.	Includes explanation of the link and makes general reference to district goals/objectives.	Includes a specific link to district goals and objectives and explicitly identifies the area of achievement to be addressed in measurable terms.	
Link to State Standards/District Goals/Curriculum Integration	The project makes no links to current district or PLC curriculum team goals.	The project makes vague references to district or PLC curriculum team goals.	The project makes general references to district or PLC curriculum team goals.	The project makes explicit and strong links to specific district or PLC curriculum team goals and integrates technology into the core curriculum.	
Link to NETS Standards/District Goals	The project makes no link to NETS Standards for students or teachers.	The project makes a vague reference to NES standards but, does not cite any specific standard.	The project makes general reference to NETS Standards, but does not cite specific performance indicators.	The project makes explicit reference to one or more NETS Standards for Teachers and/or students. Specific performance indicators are cited from the NETS Standards.	
Measureable Outcomes & Evaluation	There is no indication of what is to be learned and how learning will be determined.	There is some indication of what is to be learned but only vague references as to how it will be determined that learning actually occurred.	There are clear indications of what is to be learned, and a method to assess group learning has been identified.	There are clear indications of what is to be learned and specific methods have been identified to assess individual student learning.	
Timeline and Professional Development	There is no indication of an implementation timeline, nor is there a professional development plan.	Timeline and professional development plan are in place, but are not detailed and complete.	A complete timeline includes professional development with detailed steps to be completed	A complete timeline includes professional development with detailed steps to be completed with plans to provide professional development for others.	
Budget/Avoids Redundancy/Is Sustainable	No budget was provided. This item is in the Library Discovery Center in abundant quantity and can be checked out easily. Cost of maintenance for this item is very high. This expense is not mentioned in the application.	Budget is limited and/or figures do not total correctly This item is in the Library Discovery Center but is often unavailable. It will be used in the designated classroom at least 50% of the time. Cost of maintenance is high. It is mentioned in the application, but there is no specific plan as to how future cost will be covered.	Budget lacks comprehensiveness. Specific figures and/or project costs exceed maximum funds available. This item is in the Library Discovery Center but is in high demand and difficult to check out. It will be used in the designated classroom at least 75% of the time. Cost of maintenance is reasonable. It is planned for in the budget.	Budget is thorough. Specific figures are given for each category and budgeted item. The budget request is reasonable in light of overall impact on the number of students to the benefit from the project. This item is not available in the Library Discovery Center and/or it will be used in the designated classroom 100% of the time. Cost of maintenance is low and/or justifiable. This expense is carefully planned for in the budget.	
Creative, Innovative, & Collaborative	The project is not creative, innovative, nor collaborative.	The project contains some creative, innovative, and/or collaborative components, but there is little evidence that these ideas will enhance student learning & instruction.	The project contains very creative, innovative, and collaborative components and there is some evidence that these ideas will enhance student learning and instruction.	The project contains strong creative, innovative, and collaborative components. It describes how a new teaching technique will stimulate and enhance student learning and instruction.	
District Support	The technology is not supported by the district.	The technology can possibly be supported by the district but has not been verified.	The technology can be used on a trial basis with the approval of the technology department.	The technology is supported by the district and has been approved by the technology department.	
Total Score:					