



*Creating Successful Learners, Now!*

# **TECHNOLOGY MASTER PLAN**

2014-2018

Prepared By

NSD Technology Plan Update Committee

Governing Board Approval: April 23, 2014

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## **Scope of Effort**

The long-term goal of the Technology Update Plan Committee is to create a system of integrating technology into the classroom and throughout the district. Once the system is approved and in place, it can be tested, modified, and re-evaluated to ensure the goals and objectives are being accomplished. The components that follow are recommended guidelines for school district education technology broadband initiatives of the American Recovery and Reinvestment Act of 2009, and an educational technology integration system unique for National School District.

The following Technology Use Plan (TUP) is based on a thorough needs assessment of the district office and its 10 school sites and surveys of district staff. The plan is separated into 11 components:

Background and Mission Statements

Plan Duration

Stakeholders

Curriculum Component

Professional Development Component

Infrastructure, Hardware, Technical Support and Software

Funding and Budget

Monitoring and Evaluation

Effective Collaborative Strategies with Parents, Adult Literacy Providers, and Community Members to Maximize the Use of Technology

Effective, Research-Based Methods and Strategies

Effective Communication Strategies with Stakeholders

The Curriculum; Professional Development; Infrastructure, Hardware, Technical Support and Software; Funding and Budget; and Monitoring and Evaluation components are divided into three parts:

Needs & Resource Assessment

Goals

Monitoring & Evaluation

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## **Background and Overview**

### **Background**

National School District is located in National City, just south of San Diego, ten miles north of the Mexican border. We are a district with ten elementary schools serving preschool through sixth grades, with a student population of approximately 5,800. Our district has a rich history, reaching back 125 years, making it one of the oldest school districts in the county. Our student population reflects the diverse multiethnic community of National City, comprising a minority population of over 90 percent.

### **Mission Statement**

Our mission is to create an environment that integrates technology as a natural part of the educational experience, and provides all learners with the skills to access knowledge that will build a foundation for their future.

We will accomplish this vision by creating a dynamic technological environment that allows the community of learners equal access to interact and collaborate successfully. We believe that the use of technology as a part of the curriculum should focus on supporting higher-level learning, problem solving, critical thinking skills, and collaboration.

National School District has identified eight long-term goals for integrating technology into the District. These goals will guide the technology planning process and the implementation of the plan during the three-year duration of this plan. These goals are:

Increase access to technology for the learning community of NSD.

Integrate technology into the curriculum aligned with the California state frameworks and Common Core State Standards (CCSS) (content and performance standards).

Integrate technology to automate department paperwork and processes across the district.

Provide ongoing staff development for the implementation and use of technology.

Provide ongoing communication with and between the Board, Cabinet, other administration, teachers, staff, students, parents, and the community.

Establish district standards for infrastructure, procurement, hardware, software, and communications including upgrade and maintenance.

Identify the resources necessary to implement the technology plan.

Establish an ongoing process as a means to evaluate the effective implementation of the technology plan.

In addition, the technology plan is aligned with the District's Local Control Accountability Plan, Local Educational Agency Plan and Title III Year 4 Improvement plans as well as the District's Strategic Plan. The core strategies of the strategic plan include and correlate to the technology plan as indicated:

- High quality, standards-based instructional program which correlates to the curriculum and effective, research-based methods components of the plan
- High quality staff which correlates to the professional development component of the plan
- Safe and healthy learning environment which correlates to the infrastructure, hardware, technical support, and software component of the plan
- Effective communication and outreach which correlates to effective collaboration strategies and monitoring and evaluation components of the plan
- Managing fiscal resources which correlates to the funding and budget component of the plan

## **1. PLAN DURATION**

This Technology Use Plan (TUP) will be in effect for a period of four years, from July 1, 2014 through June 30, 2018. The plan outlines goals, benchmarks and timelines based on the four-year period of the plan. The effectiveness of the plan will be monitored and evaluated as stated in each objective. The plan addresses all 30 criteria required for state approval.

## 2. STAKEHOLDERS

National School District considers involvement of district support staff, administrators, community, teachers, parents, and students as essential partners for the success of all educational programs. Currently, NSD has over 300 certificated employees, over 250 total classified employees, and 19 total administrators. The district strongly believes that students' accomplishments rely on the collaboration between home and school community. The National School District technology plan update committee involved a variety of stakeholders in a variety of ways during this update process.

### ***Board of Education***

Alma Sarmiento ..... President  
Brian Clapper ..... Clerk  
Rosalie "Rosie" Alvarado ..... Board Member  
Barbara Avalos ..... Board Member  
Elizabeth "Liz" Vasquez ..... Board Member

### ***Administration***

Christopher Oram, Ed.D ..... Superintendent  
Paula Jameson-Whitney ..... Assistant Superintendent, Ed. Services  
Chris Carson ..... Assistant Superintendent, Bus. Services  
Cindy Frazee ..... Assistant Superintendent, H.R.

### ***Technology Plan Update Committee***

Paula Jameson-Whitney ..... Assistant Superintendent, Ed. Services  
Cindy Vasquez, Ed.D ..... Director, Ed. Services  
Larry Troisi ..... District Office, MIS Supervisor  
David Brashear ..... Principal, Central  
Michelle Manchester ..... Teacher and Technology Liaison, Central  
Veronica Silva ..... Principal, El Toyon  
Felipe de la Peña ..... Teacher, El Toyon/Vice Principal, Central  
Clint Anderson ..... Teacher, Harbison/Vice Principal, Lincoln Acres  
Stephanie Buttell-Maxin ..... Teacher Dual Language and Technology Liaison, Kimball  
Kelly Larsen ..... Teacher and Technology Liaison, Las Palmas  
Hernan Baeza ..... Teacher and Technology Liaison, Lincoln Acres  
Leticia Hernandez ..... Principal, Otis  
Deborah Hernandez ..... Principal, Palmer Way  
Kirsten Madueña ..... Teacher and Technology Liaison, Rancho de la Nación  
Elizabeth Gonzalez ..... Teacher, Otis  
Noemy Salas ..... Coordinator, Student Support Services Preschool  
Arlene Pedroza ..... Library Media Specialist, Kimball and Lincoln Acres

The technology update plan committee developed guidelines for the development, implementation, monitoring and evaluation of the National School District 2014-2018 Technology Master Plan. The committee will also assist in the implementation of the activities described in the objectives. The plan consists of a comprehensive program that effectively uses technology to help students meet or exceed the state academic content standards in all core content areas including Language Arts, Mathematics, Science and Social Studies along with the English Language Development standards.

The National School District Governing Board supports the educational technology goals that provide guidance in addressing the district's technology needs. The plan also provides a clear focus to enhance the district's curricular program and, improve school community technology skills needed to effectively implement the use of technology in the classroom, computer labs, and/or library media centers. Technology curricular goals are included in each school site's Single Plan for Student Achievement that is approved by the School Site Council (SSC) and Governing Board.

### **3. CURRICULUM COMPONENT**

One of the primary reasons for developing a TUP is to find ways to effectively integrate technology into the curriculum. Simply adding technology to a learning environment does not, in and of itself, ensure that it will be integrated effectively. We believe that technology should promote higher-level learning, problem solving, critical thinking skills, and collaboration across all curricular areas. As a parallel development, National School District is continuing to refine the use of the Online Assessment Reporting System (OARS) and reports available through the NSD District Website as online repositories of classroom and district assessments.

We will continue to raise the level of technology integration in the learning experience for all students. Teachers must become more comfortable using technology to support student learning in the classroom. We want to see a measurable impact of technology on student achievement. Students should become better readers, writers and mathematicians because of their interaction with classroom technology. Teachers should be using technology tools to assist them in making good instructional decisions for their students. The evaluation that we did as part of our technology planning effort has assisted us in identifying several areas of focus that will serve as the cornerstone of the technology plan for the district. This plan will address how the district's technology effort will continue to support the curricular needs of students over the next four years – encompassing the 2014-2015 school year through the 2017-2018 school year.

Planning for high performance learning begins by focusing on student learning. CCSS curriculum standards need to be aligned with student technology standards. As we continue the process of merging common core standards with instruction and aligning technology standards, the district will be better prepared to plan for staff development and infrastructure management.

Our curriculum goals are divided into four areas:

Integrate technology tools/equipment to support student learning and to aid teachers in the delivery of the core curriculum

Use assessment data to guide student learning activities and lesson plan development for all classrooms

Identify appropriate software and courseware to support the instructional program of the entire district

Continue to increase student achievement in all core content areas including Language Arts, Mathematics, Science, Social Studies and Visual and Performing Arts as well as English Language Development.

### **3A Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.**

#### **Teachers' Access:**

Through our technology planning committee meetings and the technology survey, both quantitative and qualitative data was utilized to identify areas of need for this plan.

The results of surveys show that technology is currently used in the following instructional settings by classroom teachers and support staff:

- 68% "in the classroom or other instructional area, including carts"
- 20% "in a computer lab"
- 12% "in the library media center"
- 0% "my students don't use technology tools"

All teachers in the district have a teacher multimedia workstation installed in their classroom. Those computers are connected to the Internet and the district WAN and allow teachers to conduct district business from their classrooms. In addition, all teachers in the district have an NSD issued laptop that they use to plan lessons, access email, control the Promethean boards for the classrooms and conduct district business. Teachers who have laptops assigned have access to technology 24 hours – seven days per week at home and at school. All classrooms in the district have a phone with a line to the outside.

Every classroom within the district has a Promethean board system installed. These systems include the ActivBoard, ActiVotes, ActivSlates, and a speaker system that allow for the use of multimedia. All teachers have access to a projector that allows them to display computer content on a large screen.

#### **Students' Access:**

National School District has made positive strides in providing all students access to the latest technology. Many of the schools use technology tools across the curriculum, yet the need exists to increase computer access for individual students before, during, and after school.

Student surveys indicate that 50% of the students do not have access to a computer at home. Due to the low-socio-economic status of the majority of the homes in National City, most parents can either not afford to purchase a computer or cannot afford to upgrade their outdated systems to keep up with the constant sophistication of newer computer systems. In addition, student access to Internet at home is limited as well.

Educational technology tools are used extensively as part of each school's daily instructional program. Students are also offered additional opportunities to use technology in creative and enriching ways during, before and after school classes. All classrooms in the district have a minimum of five computer workstations and a printer installed for student use. Many of the intermediate classrooms (grades 4-6) have as many as eight computer workstations. All computers have access to the Internet and the resources on the district WAN.

Seven out of ten schools in the National School District have a 32-unit computer lab. Computer lab schedules cycle students through the lab on a rotating basis. The labs provide access to the Internet, email, Microsoft Office Suite applications, and varied educational software programs like SuccessMaker, Accelerated Reader and Imagine Learning. Most labs have a ceiling mounted projector that allows for group demonstrations/presentations. All ten schools have either a 33-unit netbook and/or laptop cart.

### 3B Description of the district's current use of hardware and software to support teaching and learning

As a result of the technology survey completed by staff, it was determined that students use technology for a variety of purposes for various lengths of time. Both the percent of time daily and the various tasks are indicated in the graphs below. This information will be used to help determine how best to increase the time students use the computers and for more targeted purposes in meeting the requirements of the common core standards. Currently, the majority of time students spend using technology (primarily computers) is for the purpose of reinforcement and practice. Although this is an excellent use of technology, according to the common core standards it is not the intended primary purpose/use of technology.

**Daily Percent of Time Technology is Used**

Use of Technology Daily	Certificated Staff	Classified Staff
Less than 30 Minutes	17%	5%
20 to 60 Minutes	68%	70%
1 to 2 Hours	11%	20%
More than 2 Hours	4%	5%

**Percent of Time Students Use Technology for Classroom Assignments**

Technology Tool	Daily	Weekly	Monthly	Quarterly	Rarely	Not available
Word Processing	5%	5%	14%	14%	30%	32%
Research, using the Internet, or other online products	5%	10%	14%	21%	18%	32%
Use digital tools and peripheral devices (digital cameras, Promethean, video, etc.)	50%	13%	8%	4%	13%	12%
Multimedia, web and/or presentation products	3%	3%	7%	12%	35%	40%
Correspond and collaborate with experts, authors, students from other schools, etc.	4%	6%	2%	2%	29%	57%
Solving real world problems or analyzing data	12%	8%	4%	6%	29%	41%
Graphically presenting information (concept mapping, etc.)	15%	14%	8%	3%	25%	35%

District teachers use data on student academic performance to inform instructional decisions in their classrooms. Currently, teachers use the OARS system to track data in their classrooms. In addition, district staff uses the district's data warehouse to generate reports and monitor student achievement. The district collects performance data on students several times over the course of the school year. Many teachers use the EnVision Math and OARS test item banks to generate classroom developed assessments to further monitor students' progress.

All schools have access to the following software:

**SuccessMaker Software Courses:**

Math Concepts and Skills – Spanish (TK-2)

Reading English (TK-6)

Math English (TK-6)

Vamos a Leer (TK-2)

**Scholastic ReadAbout**

**Scholastic Reading Counts (SDC & RSP)**

**Renaissance Learning Accelerated Reader**

**Brain Pop and Brain Pop Jr.**

**Scholastic Read180 and System44 (RSP)**

**VPort (SDC/ReadWell and Language!)**

**Dibels/IDEL/DAZE**

**Mclasshome (Amplify)**

**McGraw-Hill Fonética**

**Scholastic Reading Inventory**

**Discovery Education Streaming**

**Renaissance Learning STAR Reading (1-6)**

**Renaissance Learning STAR Spanish Reading (1-2)**

**Renaissance Learning STAR Math (1-6)**

**Renaissance Learning STAR Early Literacy (K-1)**

**Promethean Planet/ActivInspire**

In addition to the software titles listed, every school has a myriad of digital resources that are part of the instructional materials adoptions that have taken place over the past several years. These resources include:

**Houghton Mifflin Reading**

Most print resources have been made available to be used on the Promethean ActivBoards and are also available on the NSD website.

Houghton Mifflin Website

**EnVision Mathematics**

All print resources have been made available to be used on the Promethean ActivBoards and are also available on the NSD website.

Pearson Successnet Website

**Harcourt California Reflections**

Geo Skills CD-ROMS

California Audiotext CD Collection

All-In-One Planner with Assessment CD-ROM

alifornia Student Edition, CD-ROM

CA Assessment Test Generator CD-ROM

Harcourt California Reflections Website

**MacMillan/McGraw Hill Science**

### **3C Summary of the district’s curricular goals that are supported by the technology plan**

We know that simply adding technology to a learning environment does not ensure that it will be integrated effectively. We believe that the use of technology in the curriculum should support higher-level learning, problem solving and critical thinking skills and directly support the student’s mastery of CCSS content standards across all content areas. National School District uses OARS as a data management/reporting system for the classroom, the reporting functions of other software programs used in the district, and the district’s data warehouse where teachers and principals can access and generate additional reports.

We will continue to raise the level of technology integration in the student learning experience for all students. Using educational technology tools will become a regular part of how students and teachers work on core curriculum learning. We want to see a measurable impact of technology on student achievement. Students should become better readers, writers and mathematicians because of their interaction with classroom technology. Teachers will use technology tools to assist them in making targeted instructional decisions for their students. The evaluation that we did as part of our technology planning effort has assisted us in identifying several areas of focus that will serve as the cornerstone of the technology plan for the district. This plan will address how the district’s technology effort will continue to support the curricular needs of students over the next four years – encompassing the 2014-2015 school year through the 2016-2018 school years.

Planning for high performance learning begins by focusing on student learning. California state common core standards must be aligned with student technology standards.

The Board adopted curriculum goals that are supported by this plan are recorded in the district document entitled, “Board Policy 6011 Instruction” and are divided into four areas:

**Integrate technology tools/equipment to support student learning and to aid teachers in the delivery of the core curriculum**

**Use assessment data to guide student learning activities and lesson plan development for all classrooms**

**Identify appropriate software and courseware to support the instructional program of the entire district**

**Continue to increase student achievement in Language Arts and Mathematics as a primary focus, and as the plan progresses, in other curricular areas such as English Language Development (ELD), Science, Social Studies and the Arts as well**

State and local accountability requires that all students meet Smarter Balanced Assessment Consortia (SBAC) state performance targets (as they are developed and refined) in Language Arts and Mathematics content standards. To this end, the district has adopted high quality standards-based instructional materials and developed common core instructional sequence guides to assist teachers in meeting these benchmarks.

Table 1(below) outlines the standards and assessment tools by subject area:

Subject Area	Source of Performance Standards	Assessment Tools
ENGLISH LANGUAGE ARTS	STATE COMMON CORE CONTENT STANDARDS CALIFORNIA LANGUAGE ARTS FRAMEWORK CURRICULUM EMBEDDED ASSESSMENTS (LEARNING HEADQUARTERS WRITING (LHQ)) ANNUAL PERFORMANCE TARGETS DISTRICT BENCHMARKS SITE BENCHMARKS	STANDARDIZED TESTING AND REPORTING SBAC CST/CMA SCIENCE (GRADE 5 ONLY) CAPA/NCSC CALIFORNIA ENGLISH LANGUAGE DEVELOPMENT TEST (CELDT) GRADES K-6; VCCALPS FOR SDC (MOD/SEVERE)
MATH	STATE COMMON CORE CONTENT STANDARDS CALIFORNIA MATHEMATICS FRAMEWORK CURRICULUM EMBEDDED ASSESSMENTS ANNUAL PERFORMANCE TARGETS DISTRICT BENCHMARKS SITE BENCHMARKS	DISTRICT BENCHMARK ASSESSMENTS CLASSROOM ASSESSMENTS TEACHER OBSERVATIONS DISTRICT WRITING ASSESSMENTS – ALL GRADES DIBELS/IDEL/DAZE
SCIENCE	NEXT GENERATION SCIENCE STANDARDS CALIFORNIA SCIENCE FRAMEWORK CURRICULUM EMBEDDED ASSESSMENTS ANNUAL PERFORMANCE TARGETS DISTRICT BENCHMARKS SITE BENCHMARKS	SCHOLASTIC READING INVENTORY STAR READING (ENGLISH AND SPANISH) STAR MATH
SOCIAL STUDIES	STATE CONTENT STANDARDS CALIFORNIA SOCIAL SCIENCE FRAMEWORK CURRICULUM EMBEDDED ASSESSMENTS ANNUAL PERFORMANCE TARGETS	
ENGLISH LANGUAGE DEVELOPMENT	STATE ELD STANDARDS CALIFORNIA LANGUAGE ARTS FRAMEWORK ANNUAL PERFORMANCE TARGETS DISTRICT BENCHMARKS	
VISUAL AND PERFORMING ARTS	STATE CONTENT STANDARDS CALIFORNIA VISUAL AND PERFORMING ARTS FRAMEWORK EMBEDDED WITHIN DISTRICT BENCHMARKS	

### 3D List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the District curricular goals

The district and site strategic and master plans call for addressing needs in English Language Arts, Mathematics, Science, History-Social Science, Visual and Performing Arts, and English Language Development.

#### Mathematics

All students currently use SuccessMaker mathematics software to support mathematics instruction in the classroom and two schools use IXL mathematics software as well. Many district classrooms also use Promethean ActivBoards and peripherals to support mathematics lessons. Promethean ActivBoards have a variety of software resources that can be used to support math instruction (coordinate graphs, protractors, rulers, clocks, etc.) The district’s adopted mathematics curriculum, *Pearson EnVision Math*, provides online resources for every math lesson. The district technology liaisons along with assistance from educational services personnel will continue to investigate, pilot and recommend mathematics software for possible district implementation.

Goal: By May 2018, 90% of students in grades 3-6 will demonstrate a 3-5% growth annually towards proficiency on the common core claims as measured by the state assessment (SBAC), special education assessments (CAPA/NCSC), and IEP goals in mathematics.

OBJECTIVES	IMPLEMENTATION PLAN /BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Students will utilize technology resources (to include not only those parts of the adopted curriculum) to enhance their learning of mathematics content towards mastery of the common core mathematics standards and the eight standards of mathematics practice.</p> <p><b>Objective 2:</b> Students will use educational software that supports use of the eight standards of mathematical practice and specifically, analytical thinking and problem solving with relevant, real-world applications.</p> <p><b>Objective 3:</b> Students will learn to use a variety of technological math tools.</p> <p><b>Objective 4:</b> Students will use the Internet for research and to enhance their understanding of common core mathematics standards as well as to collaborate with others in mathematics.</p> <p><b>Objective 5:</b> Students will use graphic organizing and presentation software to brainstorm and organize their work.</p> <p><b>Objective 6:</b> Students will use multimedia to enhance their presentation skills.</p>	<p>Identify or develop appropriate age/grade level activities to ensure accomplishment of objectives.</p> <p>Review of assessment data to determine trends, strengths, and needs.</p> <p>Facilitate students’ successful completion of activities and mastery of objectives.</p> <p>Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.</p> <p>Assess need for additional professional development, hardware or software.</p> <p>Identify software and Internet resources to be used.</p> <p>Purchase needed software.</p> <p>Identify and schedule needed professional development.</p> <p>Develop plan for acquiring hardware needed to achieve student performance targets.</p>	<p>Ongoing throughout the year</p> <p>Ongoing throughout the year</p> <p>Assess Fall, Winter, Spring during District Assessment Windows</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018; add to master calendar as developed</p> <p>Ongoing throughout the year</p> <p>Ongoing throughout the year</p> <p>Annually; review and identify; add to master calendar as developed</p> <p>Annually; review and refine as needed</p>

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
Teacher surveys, principal observations and PD sign-in sheets and evaluations.	June of each year	Tech liaisons and technology committee will analyze progress and make changes with stakeholders’ assistance.	Teachers and site principals will evaluate site survey information to determine site goals for the new year.  Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.

## Language Arts

Students currently use SuccessMaker language arts software to support instruction in the classroom. District classrooms also use Promethean ActivBoards and peripherals to support language arts lessons. Promethean ActivBoards have a variety of software resources that can be used to support instruction in reading, writing and language. Teachers also use a variety of instructional software to support instruction in language arts. The district’s adopted language arts curriculum, Houghton Mifflin *California Reading Medallion*, provides online resources for language arts lessons. In addition, the dual language program utilizes a variety of instructional software to promote dual language instruction and achievement. The district technology liaisons along with assistance from educational services personnel will continue to investigate, pilot and recommend language arts software for possible district implementation.

Goal: By May 2018, 90% of students in grades 3-6 will demonstrate a 3-5% growth annually towards proficiency on the common core claims as measured by the state assessment , (SBAC) special education assessments (CAPA/NCSC), and IEP goals in language arts.

OBJECTIVES		IMPLEMENTATION PLAN /BENCHMARKS		TIMELINE
<p><b>Objective 1:</b> Students will utilize technology resources (to include not only those parts of the adopted curriculum) to enhance their learning of ELA content towards mastery of the common core ELA standards (which include the college and career anchor standards).</p> <p><b>Objective 2:</b> Students will use educational software that supports the common core ELA standards and specifically, analytical thinking and problem solving with relevant, real-world applications.</p> <p><b>Objective 3:</b> Students will learn keyboarding and word processing (as stated in the common core content ELA content standards).</p> <p><b>Objective 4:</b> Students will use the Internet for research and to enhance their understanding of common core ELA standards as well as to collaborate with others in ELA.</p> <p><b>Objective 5:</b> Students will use graphic organizing &amp; presentation software to brainstorm and organize their work.</p> <p><b>Objective 6:</b> Students will use multimedia to enhance their presentation skills.</p>		Identify or develop appropriate age/grade level activities to ensure accomplishment of objectives.		Ongoing throughout the year
		Review assessment data to determine trends, strengths, and needs.		Ongoing throughout the year
		Facilitate students’ successful completion of activities and mastery of objectives.		Assess Fall, Winter, Spring during District Assessment Windows
		Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.		Spring 2014, 2015, 2016, 2017, 2018
		Assess need for additional professional development, hardware or software.		Spring 2014, 2015, 2016, 2017, 2018; add to master calendar as developed
		Identify software and Internet resources to be used.		Ongoing throughout the year
Purchase needed software.		Ongoing throughout the year		
Identify and schedule needed professional development.		Annually; review and identify; add to master calendar as developed		
Develop plan for acquiring hardware needed to achieve student performance targets.		Annually; review and refine as needed		
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Teacher surveys, principal observations and PD sign-in sheets and evaluations.	June of each year	Tech liaisons and technology committee will analyze progress and make changes with stakeholders’ assistance.	Teachers and site principals will evaluate site survey information to determine site goals for the new year.  Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.	

## English Language Development

English Learner students identified by their school site currently use Imagine Learning software to support English Language Development (ELD) instruction in the classroom. District classrooms also use Promethean ActivBoards and peripherals to support ELD lessons. Promethean ActivBoards have a variety of software resources that can be used to support instruction in reading, writing, speaking, and listening. Teachers also use a variety of instructional software to support instruction in ELD. The district’s adopted ELD curriculum, *EL Achieve Systematic ELD*, provides some online resources for ELD lessons. The district technology liaisons along with assistance from educational services personnel will continue to investigate, pilot and recommend ELD software for possible district implementation.

Goal: By May 2018, 90% of students in grades 3-6 will demonstrate required growth annually towards proficiency on the state annual measurable objectives as measured by the California English Development Language Test (CELDT/to be replaced with the English Learner Performance Assessments for California (ELPAC)), special education assessment (VCCALPS), and IEP goals in language arts/ELD.

OBJECTIVES		IMPLEMENTATION PLAN /BENCHMARKS		TIMELINE
<p><b>Objective 1:</b> Students will utilize technology resources (to include not only those parts of the adopted curriculum) to enhance their learning of ELD content towards mastery of the common core ELD standards (which correlate to the ELA common core standards and college and career anchor standards).</p> <p><b>Objective 2:</b> Students will use educational software that supports the ELD standards.</p> <p><b>Objective 3:</b> Students will use the Internet for research and to enhance their understanding of the ELD and common core ELA standards as well as to collaborate with others in ELD and ELA.</p> <p><b>Objective 4:</b> Students will use graphic organizing and presentation software to brainstorm and organize their work.</p> <p><b>Objective 5:</b> Students will use multimedia to enhance their presentation skills.</p>		Identify or develop appropriate age/grade level activities to ensure accomplishment of objectives.		Ongoing throughout the year
		Review assessment data to determine trends, strengths, and needs.		Ongoing throughout the year
		Facilitate students’ successful completion of activities and mastery of objectives.		Assess Fall, Winter, Spring during District Assessment Windows
		Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.		Spring 2014, 2015, 2016, 2017, 2018
		Assess need for additional professional development, hardware or software.		Spring 2014, 2015, 2016, 2017, 2018; add to master calendar as developed
Identify software and Internet resources to be used.		Ongoing throughout the year		
Purchase needed software.		Ongoing throughout the year		
Identify and schedule needed professional development.		Annually; review and identify; add to master calendar as developed		
Develop plan for acquiring hardware needed to achieve student performance targets.		Annually; review and refine as needed		
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Teacher surveys, principal observations and PD sign-in sheets and evaluations.	June of each year	Tech liaisons and technology committee will analyze progress and make changes with stakeholders’ assistance.	Teachers and site principals will evaluate site survey information to determine site goals for the new year.  Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.	

## Science

Students currently use word processing and web research in science, along with science materials kits from FOSS and AIMS activities. Some schools in our district use STEM software as an integral part of their instructional program. District classrooms also use Promethean ActivBoards and peripherals to support science instruction. Promethean ActivBoards have a variety of software resources that can be used to lesson delivery. The district's adopted science curriculum, *MacMillan/McGraw-Hill California Science*, provides some online resources for lessons. Additional science related software is used and a variety of websites are accessed in the implementation and delivery of science content in order to meet the requirements of the Next Generation Science Standards. The district technology liaisons along with assistance from educational services personnel will continue to investigate, pilot and recommend science software for possible district implementation.

Goal: By May 2018, 90% of students in grade 5 will demonstrate a 3-5% growth annually towards proficiency in the science standards as measured by the state assessment (CST/CMA), special education assessment (CAPA/NCSC), and IEP goals.

**Goal 1:** Integrate Next Generation Science content standards into day-to-day teaching, learning and application of the ELA and Mathematics common core content standards (as applicable) to include an integral use of technology.

OBJECTIVES	IMPLEMENTATION PLAN /BENCHMARKS		TIMELINE
<p><b>Objective 1:</b> Students will utilize technology resources (to include not only those parts of the adopted curriculum) to enhance their learning of science content towards mastery of the next generation science standards.</p> <p><b>Objective 2:</b> Students will use educational software that supports the science standards.</p> <p><b>Objective 3:</b> Students will use the Internet for research and to enhance their understanding of science and next generation science standards as well as to collaborate with others regarding science.</p> <p><b>Objective 4:</b> Students will use graphic organizing and presentation software to brainstorm and organize their work.</p> <p><b>Objective 5:</b> Students will use multimedia to enhance their presentation skills.</p> <p><b>Objective 6:</b> Explore the common core standards and how teachers can begin to use them during science instruction, specifically technology integration.</p> <p><b>Objective 7:</b> Integrate CCSS with Next Generation Science standards (units of study).</p>	Identify software and Internet resources to be used.		Summer 2014, 2015, 2016, 2017, 2018
	Purchase needed software.		Spring 2014, 2015, 2016, 2017, 2018
	Identify and schedule needed professional development.		Fall 2014, 2015, 2016, 2017
	Develop access plan to ensure the availability of technology to support objectives in accordance with priority of tasks.		Summer 2014, 2015, 2015, 2017, 2018
	Identify or develop appropriate age/grade level activities to ensure accomplishment of objectives.		Fall 2014, 2015, 2016, 2017
	Facilitate students' successful completion of activities and mastery of objectives.		Spring 2014, 2015, 2016, 2017, 2018
	Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.		Spring 2014, 2015, 2016, 2017, 2018
Assess need for additional professional development, hardware or software.		Monthly after school and district Thursday workshops in 2015, 2016, 2017, 2018	

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
Teacher surveys and weekly site principal observations and PD sign-in sheets and evaluations.	June of each year	Tech liaisons and technology committee will analyze progress and make changes with stakeholders' assistance.	Teachers and site principals will evaluate site survey information to determine site goals for the new year.  Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated.

## History-Social Science

All students currently use a variety of software to support access to primary sources and resources relevant to history-social science instruction in the classroom. District classrooms also use Promethean ActivBoards and peripherals to support lessons. Promethean ActivBoards have a variety of software resources that can be used to support math instruction (coordinate graphs, protractors, rulers, clocks, etc.) The district’s adopted history-social science curriculum, *Harcourt Reflections*, provides online resources for lessons.

Students currently use word processing and web research in history-social science. Many teachers use digital resources that come with the HSS adoption. Primary sources, documents and publications such as Scholastic News provide relevant information for use during instruction and as integral pieces to “units of study.”

**Goal 2:** Integrate History-Social Science content standards into day-to-day teaching and learning of the ELA and Mathematics common core content standards (as applicable) to include an integral use of technology.

OBJECTIVES	IMPLEMENTATION PLAN /BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Students will use the Internet for research and to enhance their understanding of HSS standards.</p> <p><b>Objective 2:</b> Students will use graphic organizing &amp; presentation software to brainstorm and organize their work.</p> <p><b>Objective 3:</b> Students will use educational software that supports analytical thinking.</p> <p><b>Objective 4:</b> Students will use multimedia such as scanners, digital still and video cameras to enhance their presentation skills.</p> <p><b>Objective 5:</b> Students will utilize technology resources that are part of the adopted textbook to enhance their learning of HSS content.</p> <p><b>Objective 6:</b> Explore the common core standards and how teachers can begin to use them during HSS instruction, specifically technology integration.</p>	<p>Identify software and Internet resources to be used.</p> <p>Purchase needed software.</p> <p>Identify and schedule needed professional development.</p> <p>Develop access plan to ensure the availability of technology to support objectives in accordance with priority of tasks.</p> <p>Identify or develop appropriate age/grade level activities to ensure accomplishment of objectives.</p> <p>Facilitate students’ successful completion of activities and mastery of objectives.</p> <p>Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.</p> <p>Assess need for additional professional development, hardware or software.</p>	<p>Summer 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2014, 2015, 2016, 2017</p> <p>Summer 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2014, 2015, 2016, 2017</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Monthly after school and district Thursday workshops in 2014, 2015, 2016, 2017</p>

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
<p>Teacher surveys and weekly site principal observations and PD sign-in sheets and evaluations.</p>	<p>June of each year</p>	<p>Tech liaisons and technology committee will analyze progress and make changes with stakeholders’ assistance.</p>	<p>Teachers and site principals will evaluate site survey information to determine site goals for the new year.</p> <p>Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.</p>

## Visual and Performing Arts

Teachers have participated in the VAPA, Picture This, Picture These, COTA, and IVIE visual and performing arts programs designed to positively impact student achievement by making cross-curricular connections between the visual and performing arts and content standards in a way that is meaningful to students outside of a traditional education setting. In addition to reinforcing the traditional curriculum, including these standards into daily lessons promotes 21st century literacy skills and develops technology-literate students.

**Goal 3:** Integrate Visual and Performing Arts standards into day-to-day teaching and learning of the ELA and Mathematics common core content standards (as applicable), ELD standards, and Next Generation science standards to include an integral use of technology.

OBJECTIVES	IMPLEMENTATION PLAN /BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Work with teachers who have participated in VAPA activities to include COTA and Picture This/These along with SDCOE resource personnel to develop teacher training options which provide opportunities to integrate arts into common core instruction and expand projects in place.</p> <p><b>Objective 2:</b> Develop classroom instructional resources (lesson plans, Promethean flipcharts, etc.) to support implementation of quality visual and performing arts lessons in the classroom.</p> <p><b>Objective 3:</b> Offer follow up training for existing COTA and Picture This/These teachers so that they can continue to refine their skills in using video and multimedia to enhance their instructional program.</p> <p><b>Objective 4:</b> Identify hardware and software to be used in the classroom to support integration of the arts across the curriculum; select a group of pilot teachers and work with them with field specialists to support integration.</p>	<p>Identify software and Internet resources to be used.</p> <p>Purchase needed software.</p> <p>Identify and schedule needed professional development.</p> <p>Develop access plan to ensure the availability of technology to support objectives in accordance with priority of tasks.</p> <p>Identify or develop appropriate age/grade level activities to ensure accomplishment of objectives.</p> <p>Facilitate students' successful completion of activities and mastery of objectives.</p> <p>Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.</p> <p>Assess need for additional professional development, hardware or software.</p>	<p>Summer 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2014, 2015, 2016, 2017</p> <p>Summer 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2014, 2015, 2016, 2017</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Monthly after school and district Thursday workshops in 2014, 2015, 2016, 2017, 2018</p>

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
Teacher surveys and weekly site principal observations and PD sign-in sheets and evaluations.	June of each year	Tech liaisons and technology committee will analyze progress and make changes with stakeholders' assistance.	Teachers and site principals will evaluate site survey information to determine site goals for the new year.  Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.

## Technology Integration

Currently students utilize relatively traditional technology resources. This includes CAI software, MS Office (Word, PowerPoint, and Excel), web resources, Accelerated Reader/Reading Counts and SRI to name a few. The Promethean ActivBoard and the frequent use of streaming media, such as Discovery Education Streaming and BrainPOP, have begun to transition classroom technology into 21st Century uses: multimedia and web resources. This transition can continue to empower our students to be ready to compete in our global economy.

**Goal 4:** Continue to integrate non-standard technology into classroom instruction and professional development including the use of environments such as Edmodo, Google Applications for Education, Blending Learning, and Flipped Classroom as well as prezis, podcasting, blogs, wikis, and 1 to 1 computing throughout the 2014-2018 school years.

OBJECTIVES	IMPLEMENTATION PLAN /BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Integrate 1 to 1 computing in all classrooms in the NSD.</p> <p><b>Objective 2:</b> Identify and develop support mechanisms and resources for teachers as they utilize non-standard technology in the classroom to include special devices for special education students and students in the dual language program.</p> <p><b>Objective 3:</b> Explore and determine alternate ways to support teachers, students, and parents with non-standard technology uses to support mastery of the common core standards in ELA and mathematics, the ELD standards, Next Generation Science standards, and other curricular content standards.</p> <p><b>Objective 4:</b> Explore and determine alternate ways to support teachers, students, and parents with 1 to 1 computing needs around the clock. (Consider the concepts of flipped classrooms, blended learning, STEM, STEAM, Google Apps for Education, Edmodo, Wixie, Code, PBL, The Cloud, etc.).</p>	<p>*NSD will work together with SDCOE and various vendors, as necessary, to install the technical infrastructure and create the web-based interface NSD users will use. This includes registering new domains, creating student, teacher, and administrator accounts, building databases, and connection file services and directory services.</p> <ul style="list-style-type: none"> <li>• Acquisition of new student laptop/chromebook carts. In this phase, training will include the use of netbooks and laptops in the classroom to positively affect teacher instruction and the use of technology in the home environment. Community awareness will be ensured through presentations to City staff in National City including but not limited to the Mayor’s office, City Council members, and community DAC/DELAC meetings.</li> <li>• Teacher training will be rolled out in multiple phases throughout the academic year (initial and follow up). This will include training on refining the use of current software and hardware to meet student needs and the requirements of common core standards.</li> <li>• Pilot projects will be rolled out in multiple phases throughout the academic year (initial and follow up). This will include training on new environments and devices for students and staff, and to understand how 1 to 1 computing and the numerous environments can and will affect teacher instruction in the classroom and student assignments for completion at home.</li> </ul>	<ul style="list-style-type: none"> <li>• Throughout school year of 2014, 2015, 2016, 2017, 2018</li> <li>• Throughout school year of 2014, 2015, 2016, 2017, 2018</li> <li>• Throughout school year of 2014, 2015, 2016, 2017, 2018</li> <li>• Throughout school year of 2014, 2015, 2016, 2017, 2018</li> </ul>

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
Teacher surveys and weekly site principal observations and PD sign-in sheets and evaluations.	June of each year	Tech liaisons and technology committee will analyze progress and make changes with stakeholders’ assistance.	Teachers and site principals will evaluate site survey information to determine site goals for the new year.  Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.

**3E List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.**

The National Educational Technology Standards (NETS) is an ongoing initiative of the International Society for Technology in Education (ISTE) <http://cnets.iste.org>. Their standards will be the basis of skills students are required to learn at each grade level and are taught within the context of English Language Arts, ELD, Mathematics, Science, History, and Visual and Performing Arts. See Appendix A – NETS for Students.

<b>Goal 5: By May 2018, 90% of students within the NSD will demonstrate mastery of National Educational Technology Standards (NETS) at their appropriate grade level.</b>			
<b>OBJECTIVES</b>		<b>IMPLEMENTATION PLAN /BENCHMARKS</b>	<b>TIMELINE</b>
<p><b>Objective 1:</b> All students will receive a copy of the NETS. (Primary, K-2, will receive “student-friendly” NETS standards.)</p> <p><b>Objective 2:</b> Students demonstrate NETS proficiency.</p> <p><b>Objective 3:</b> Upper grade students operate technology without assistance from teaching staff.</p>		<p>Identify software and Internet resources to be used.</p> <p>Purchase needed software.</p> <p>Identify and schedule needed professional development.</p> <p>Develop access plan to ensure the availability of technology to support objectives in accordance with priority of tasks.</p> <p>Identify or develop appropriate age/grade level activities to ensure accomplishment of objectives.</p> <p>Facilitate students’ successful completion of activities and mastery of objectives.</p> <p>Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.</p> <p>Assess need for additional professional development, hardware or software.</p>	<p>2014, 2015, 2016, 2017, 2018</p> <p>Ongoing throughout the school year 2014, 2015, 2016, 2017, 2018</p> <p>Summer 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Summer 2014, 2015, 2016, 2017, 2018</p>
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
NETS Performance Indicators for Technology Literate Students (see Appendix B).	Yearly	Teachers, tech liaisons and site Principal will analyze progress and make changes with stakeholders’ assistance.	Teachers and site principal will analyze student performance against NETS Performance Indicators.  Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; Ed Service will disseminate as appropriate.

**3F List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students and teachers can distinguished lawful from unlawful uses of copyrighted works, including the following topics; the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer to peer file sharing; avoiding plagiarism; and, appropriate interacting and collaborating with others online.**

Part of the district curriculum will be to use Digital Citizenship lessons to teach and discuss the appropriate and ethical use of information technology. Students will be taught how to distinguish from lawful and unlawful uses of copyrighted works, including but not limited to, distinguishing from lawful and unlawful downloading and peer-to-peer file sharing, appropriate sites, and appropriate interactions and conversations online. Students, their parents and staff will review the district Acceptable Use Policy and sign stating that they have read and understand the policy and agree to uphold its requirements.

Goal 5: Promote ethical use of technology in the classroom by students and staff.				
OBJECTIVES		IMPLEMENTATION PLAN /BENCHMARKS		TIMELINE
<p><b>Objective 1:</b> Implement and refine structured lessons that cover the ethical use of technology in the classroom (Digital Citizenship lessons).</p> <p><b>Objective 2:</b> Distribute curriculum (lessons) to teachers and make available on the district website.</p> <p><b>Objective 3:</b> Incorporate training on these issues as part of district staff development dealing with technology.</p> <p><b>Objective 4:</b> Implement and refine the district acceptable use policy. Policy is included in the HR Resource booklet and the student handbook.</p>		Review and refine structured lessons on ethical use of technology for students.		2014, 2015, 2016, 2017
		Present information to staff and parents a minimum of 1 time per year about ethical use of technology and their responsibility to monitor their children/students' use of technology (School Site Council meetings, DAC meetings, Open House).		Fall 2014, 2015, 2016, 2017
		Facilitate students' successful completion of curriculum and technology activities and mastery of objectives.		Fall 2014, 2015, 2016, 2017
		Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.		Spring 2015, 2016, 2017, 2018
		Assess need for additional professional development.		Spring 2015, 2016, 2017, 2018
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Teacher surveys and weekly site pPrincipal observations, PD sign-in sheets and evaluations, and survey results.	Yearly	Teachers, staff, tech liaisons, and site principal will analyze progress and make changes with stakeholders' assistance.	<p>Teachers and site principal will analyze student performance against NETS Performance Indicators.</p> <p>Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.</p>	

**3G List of goals and an implementation plan that describe how the district will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid on line predators.**

Part of the district curriculum will include lessons on Internet safety for students. Students will be taught how to recognize unsafe situations on the Internet including recognizing and avoiding online predators. Parents will also be provided education on Internet safety. Additionally, training for support staff will contain elements of Internet safety as well. Students, their parents and staff will review the district Acceptable Use Policy and sign stating that they have read and understand the policy and agree to uphold its requirements.

Goal 6: Promote Internet safety in the classroom by students and staff.				
OBJECTIVES		IMPLEMENTATION PLAN /BENCHMARKS		TIMELINE
<p><b>Objective 1:</b> Implement structured lessons that deal with Internet safety in the classroom.</p> <p><b>Objective 2:</b> Distribute lessons to teachers.</p> <p><b>Objective 3:</b> Incorporate training on these issues as part of district staff development dealing with technology.</p> <p><b>Objective 4:</b> Implement and refine the district acceptable use policy. Policy is included in the HR Resource booklet and the student handbook.</p>		Form committee to develop structured lessons on Internet safety for students.	Fall 2015, 2016, 2017	
		Present information to staff and parents a minimum of 1 time per year about ethical use of technology and their responsibility to monitor their children/students use of the Internet (School Site Council meetings, DAC meetings, Open House).	Fall 2015, 2016, 2017	
		Facilitate students' successful completion of curriculum and technology activities and mastery of objectives.	Fall 2015, 2016, 2017	
		Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.	Spring 2015, 2016, 2017, 2018	
		Assess need for additional professional development.	Summer 2014, 2015, 2016, 2017, 2018	
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Teacher survey and site principal observations.	Yearly	Teachers, site principal and Asst Supt of Ed Services will analyze progress in this area.	<p>Teachers and site principal monitor inclusion of these topics through ongoing lessons with students.</p> <p>Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.</p>	

### 3H Description of goals about the district practices that ensure equitable technology access for all students.

The district is in the process of initiating a major upgrade of its Wireless LAN and WAN capabilities to its school sites through eRate. This upgrade will involve upgrading the wireless access points in every classroom so that sufficient bandwidth will be available for any technology initiative where high density access is required. At present, the district does not have sufficient wireless bandwidth to deploy high density, large quantity wireless computer deployments, given the current wiring and classroom connectivity configurations. At present, the district's current VPN device allowing remote access is outmoded and cannot support large numbers of simultaneous connections from student homes to conduct after-hours learning activities. The district intends to significantly increase those capabilities so that they may offer this capability to any teacher and/or student wanting after-hours access. This also supports the district initiative to continue development of a common Internet portal for all students and teachers to access that goes beyond the current district intranet for providing enhanced learning, collaborative, communication, creative and research opportunities for all students and staff. The district is planning to replace its current firewall services with greatly enhanced hardware and software to allow many concurrent users protected access to district resources, per CIPA mandated requirements.

<b>Goal 7: Provide expanded access to technology for all students.</b>			
<b>OBJECTIVES</b>		<b>IMPLEMENTATION PLAN /BENCHMARKS</b>	<b>TIMELINE</b>
<p><b>Objective 1:</b> The district will maintain a minimum standard of five computer workstations for every regular education classroom and a minimum of three computer workstations for every special education classroom.</p> <p><b>Objective 2:</b> Students have opportunities to explore technology without structured lessons.</p> <p><b>Objective 3:</b> The district will continue to create ways for students without connectivity at home to acquire access. (Cox Connect2Compete is one program currently being used.)</p> <p><b>Objective 4:</b> Students performing below grade level standards will be given access to district adopted software to assist in accelerating their learning.</p>		<p>Develop access plan to ensure the availability of technology to support objectives in accordance with priority of tasks.</p> <p>Publicize access to students and parents.</p> <p>Facilitate students' successful completion of curriculum and technology activities and mastery of objectives during expanded access times.</p> <p>Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.</p> <p>Assess need for additional professional development, hardware or software.</p> <p>Identify funding sources for providing district-funded hardware for all students.</p> <p>Monitor implementation of minimum computer standard to ensure that no classroom falls below the standard.</p>	<p>Ongoing 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2015, 2016, 2017</p> <p>Spring 2015, 2016, 2017, 2018</p> <p>Spring/Summer 2014, 2015, 2016, 2017</p>
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
Teacher survey and site principal observations.	Yearly	Teachers, tech liaisons, site principal, and Ed Services staff will analyze progress and make changes with stakeholders' assistance.	Teachers and site principal monitor computer use during non-classroom times.  Ed Services and MIS staff will work to ensure district software is available to students.

**3I List of clear goals measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs.**

Goal 8: Use technology to provide improved record keeping and assessment.				
OBJECTIVES		IMPLEMENTATION PLAN /BENCHMARKS		TIMELINE
<p><b>Objective 1:</b> District will continue to implement the district data management system (OARS) and use the Report Manager on the NSD website that track student progress towards standards mastery.</p> <p><b>Objective 2:</b> District will provide a web-based classroom management system that is accessible to administrators, teachers, students and parents.</p> <p><b>Objective 3:</b> Utilize Student Information System that features a standards-based grade book that reports to students and parents.</p> <p><b>Objective 4:</b> Pre-populate student information for parents to verify, change, and/or delete.</p> <p><b>Objective 5:</b> Identify platform for online report card and develop common core report card.</p>		<p>Field test pre-populated information during verification of residency.</p> <p>Utilize district PD Thursdays and site data team meetings throughout the school year to focus on assessment data.</p> <p>Develop access plan to ensure the availability of technology to support objectives in accordance with priority of tasks.</p> <p>Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.</p> <p>Assess need for additional professional development, hardware or software.</p>	<p>Spring 2014, 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2014 with annual reassessment each year</p> <p>Fall 2015, 2016, 2017</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p>	
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Teacher surveys and weekly site principal observations and PD sign-in sheets and evaluations.	June of each year	Tech liaisons and technology committee will analyze progress and make changes with stakeholders' assistance.	<p>Teachers and site principals will evaluate site survey information to determine site goals for the new year.</p> <p>Principals will collect data from informal walkthroughs of classrooms; the data will be reviewed and synthesized; information will be provided to Ed Services to be disseminated as appropriate.</p>	

### **3J Describe the process that will be used to monitor the curricular component (sections 3D-3I) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.**

The effectiveness of the plan and program success will be monitored and evaluated as stated in each objective. All stakeholders will be informed of activities, student achievement and staff progress, through ongoing meetings, personal contacts, email, websites, letters, school bulletins, and voicemail. In this way, appropriate modifications can be made in a timely manner. Specific goals, objectives benchmarks and the process that will be used to monitor strategies are described in each component. Instruments of evaluation and the person responsible are listed after each goal. The Superintendent and principals will monitor the implementation of the technology plan together with the technology planning committee and technology liaisons in all areas. Additionally, at the end of each school year, Ed Services will report plan implementation progress to the Board of Education.

#### **Indicators of Success**

Success is measured by the extent to which program indicators are met in the areas addressed in a particular goal.

Teachers, technology liaisons, and site principals evaluate the success of goals related to curriculum implementation, student acquisition of technology skills, the equitable access of technology by students, effective use of technology for record keeping, and effective use of technology to communicate with parents.

The district educational services staff, technology liaisons, and technology committee are responsible for monitoring the plan and proposes appropriate recommendations to the superintendent for modifications if they are necessary.

#### **Indicators will be that:**

Students will reach high academic standards, at or above annually established district academic goals in reading, writing, mathematics, history, and science. A pattern of growth will be demonstrated over the course of each ensuing school year.

English learners will become proficient English speakers and reach high academic standards in the English curriculum. English learners will meet all AMAO requirements/goals. This will ensure that the goals of the LCAP plan and Title III Year 4 Improvement Plan are met as well.

Ed Services, Technology Liaisons, the Technology Planning Committee and the Principals will monitor the implementation of benchmarks and timelines. Ultimately, Ed Services is responsible for compiling the information and facilitating the discussion and development of next steps. Once these findings have been gathered, Ed Services will work with the technology liaisons and the technology planning committee to develop action plans for addressing the identified issues. Some of the goals will be evaluated in June of each of the three years of the plan. Other goals will be evaluated in October, February and June of each of the years covered by the plan. An annual report to the Governing Board on technology will include information on the achievement of technology goals and next steps for the new school year.

Benchmark/Action Step	Person(s) Responsible	Annual Dates
<b>Integrate technology tools/equipment to support student learning and aid teachers in the delivery of the core curriculum</b>		
Research standards-based lessons that use technology to enhance instruction. The International Society of Technology Education (ISTE) provides examples for the successful integration of technology at each grade level	Ed Services	October
Provide teachers with curriculum design models for creating their own technology-integrated lessons that are aligned with District and common core standards	Technology Liaisons	February
Provide standards-based lesson plans or units of instruction, integrating technology that can be used in each of the core content areas, at each grade	Technology Committee	June
Continue to implement an online repository for teachers to publish their best practices	Principals	
	Teachers	
<b>Use assessment data to guide student learning activities and lesson plan development for all classrooms</b>		
Continue implementation, development and deployment of data warehouse	Ed Services	October
Expand access to the data warehouse	Technology Liaisons	February
Explore alternative methods for housing data (accessibility and ease of use)	Technology Committee	June
Continue to support the effective utilization of the district data management system at school sites	Principals	
Provide staff development for teachers and principals on accessing and use of assessment data for planning classroom instruction	Teachers	
<b>Identify appropriate software and courseware to support the instructional program of the entire district</b>		
Technology liaisons and Ed Services will update the list of appropriate curriculum-aligned software using the California Clearing-house database and COE resources (See Appendix B for a preliminary list of exemplary rated software) and makes recommendations to the technology committee	Ed Services	October
A focus should be placed on ensuring the software is aligned with technology-integrated common core curriculum standards	Technology Liaisons	February
Ed Services and technology liaisons will work together to continue to organize pilots of new titles on the software list. Pilots will last at least one month (a quarter if at all possible) and occur in at least two grade levels. Teachers piloting software will present their outcomes and recommendations to the technology liaisons and technology committee. Technology liaisons and teachers piloting will then make recommendations for district-wide implementation. A master schedule will be created for each year detailing what content areas and grade levels will be piloting new software.	Technology Committee	June
A process will be established for the ongoing review and additions of new software titles, programs, etc.	Principals	
	Teachers	
<b>Continue to increase student achievement in Language Arts and Mathematics, Social Science and Science</b>		
As evidenced by accomplishing goals and objectives of Section 3C of Plan	Ed Services	October
Technology Planning Committee will periodically review overall progress	Technology Committee	February
State and district benchmark exams will provide assessment data to confirm progress	Principals	June
	Teachers	

<b>Students demonstrate mastery of National Educational Technology Standards (NETS).</b>		
Revise grade level technology standards for the district report card	Ed Services	October
Facilitate teacher training and to planning for inclusion of technology standards in classroom lessons	Technology Liaisons	February
Include technology component in all district training to support NETS for students and staff	Technology Committee Principals Teachers	June
<b>Introduce non-standard technology into classroom instruction including the use of podcasting, blogs, wikis, and more specifically, 1 to 1 computing</b>		
Work with technology liaisons to pilot new non-standard technology; after pilot conduct an evaluation and determine next steps for implementation; introduce new non-standard technologies at technology liaison meetings	Ed Services Technology Liaisons Technology Committee Principals Teachers	Ongoing throughout the school years
<b>Design professional development plan to support yearly goals and objectives, and schedule activities.</b>		
Develop and implement ongoing PD and technology training to support ongoing district initiatives and new initiatives; add PD to district PD calendar; include on the clock and off the clock opportunities for teachers	Ed Services Technology Liaisons Technology Committee Principals Teachers	October February June
Work with school sites to assist them in site level technology PD	Department Heads	
Sites will designate one tech day every other month to further site and District technology initiatives		
The District will work with department heads to assist them in department level technology PD		

### **3K Description of goals about the district policy or practices that support the implementation of technology in the district's dual language immersion program**

The effectiveness of the implementation of the plan and program for the dual language immersion program will be monitored and evaluated as stated in the indicators below. All stakeholders will be informed of activities, student achievement and staff progress, through ongoing meetings, personal contacts, email, websites, letters, school bulletins, and voicemail. In this way, appropriate modifications can be made in a timely manner.

#### **Indicators of Success**

Success is measured by the extent to which program indicators are met.

Dual Language school staff, technology liaisons, and site principals evaluate the success of goals related to the curriculum implementation, student acquisition of technology skills, the equitable access of technology by dual language immersion students to include software in English and Spanish, effective use of technology for record keeping, and effective use of technology to communicate with parents of students in the dual language program. Resources need to be provided in English and Spanish for all stakeholders.

The Dual Language Immersion site leadership team along with district Educational Services staff, technology liaisons, and technology committee are responsible for monitoring the plan and proposing appropriate recommendations to the Superintendent for modifications if they are necessary.

#### **Indicators will be that:**

Students participating in the Dual Language Immersion Program will reach high academic standards both in English and Spanish, at or above established academic goals in reading, writing, mathematics, history, and science. A pattern of growth will be demonstrated over the course of each ensuing school year.

English Learners will become proficient English speakers and reach high academic standards in the English Curriculum and meet all AMAO requirements/goals.

Students learning the target language of Spanish will become proficient Spanish speakers and reach high academic standards in the Spanish curriculum and meet site and district requirements/goals.

Ed Services, technology liaisons, the technology planning committee and the principals will monitor the implementation of benchmarks and timelines. Ultimately, Ed Services is responsible for compiling the information and facilitating the discussion and development of next steps. Once these findings have been gathered, Ed Services will work with the technology liaisons and the technology planning committee as well as the site leadership team at the Dual Language Immersion School to develop action plans for addressing the identified issues. Some of the goals will be evaluated in June of each year of the plan. Other goals will be evaluated as set forth in this plan. The annual report to the Governing Board on technology will include information on the achievement of technology goals and next steps for the ensuing school year for the students in the dual language immersion program.

### **3L Description of goals about the district policy or practices that support the implementation of technology in the district's special education program**

The effectiveness of the implementation of the plan and program for the special education program will be monitored and evaluated as stated in the indicators below. All stakeholders will be informed of activities, student achievement and staff progress, through ongoing meetings, personal contacts, email, websites, letters, school bulletins, and voicemail. In this way, appropriate modifications can be made in a timely manner.

#### **Indicators of Success**

Success is measured by the extent to which program indicators are met.

Program administrators, teachers, technology liaisons, and site principals evaluate the success of goals related to the curriculum implementation, student acquisition of technology skills, the equitable access of technology by special education students, effective use of technology for record keeping, and effective use of technology to communicate with parents of students in the special education program. Resources need to be provided in English and Spanish for all stakeholders.

The District's Special Education teachers, site principals, and program administrators along with District Educational Services staff, technology liaisons, and technology committee are responsible for monitoring the plan and proposing appropriate recommendations to the Superintendent for modifications if they are necessary.

#### **Indicators will be that:**

Students participating in special education programs across the district will reach high academic standards, at or above annually established goals - as per their IEP - and in alignment with district academic goals in reading, writing, mathematics, history, and science. A pattern of growth will be demonstrated over the course of each ensuing school year.

Special education students will work towards meeting IEP goals/requirements along with becoming proficient in the common core standards and reaching high academic standards in the core curriculum. Technology needs for student instruction and support will be identified by staff and administration. MIS and Ed Services will work with the special education department to establish criteria for selection of devices and programs as well as a process for procurement. The criteria and process will be evaluated on an annual basis.

Ed Services, technology liaisons, the technology plan update committee and the principals will monitor the implementation of benchmarks and timelines. Ultimately, Ed Services is responsible for compiling the information and facilitating the discussion and development of next steps. Once these findings have been gathered, Ed Services will work with the technology liaisons and the technology plan update committee as well as the special education staff to develop action plans for addressing identified issues. Some of the goals will be evaluated in June of each year of the plan. Other goals will be evaluated as set forth in this plan. The annual report to the Governing Board on technology will include information on the achievement of technology goals and next steps for the ensuing school year for the students in the special education program.

### **3M Description of goals about the district policy or practices that support the implementation of technology in the district's preschool program**

The effectiveness of the implementation of the plan and program success will be monitored and evaluated as stated in the indicators below. All stakeholders will be informed of activities, student achievement and staff progress, through ongoing meetings, personal contacts, email, websites, letters, school bulletins, and voicemail. In this way, appropriate modifications can be made in a timely manner. Specific goals, objectives, benchmarks and the process that will be used to monitor strategies are described in each component. Instruments of evaluation and the person responsible are listed after each goal.

#### **Indicators of Success**

Success is measured by the extent to which program indicators are met.

Preschool teachers, preschool program administrators, technology liaisons, MIS, and Ed Services evaluate the success of goals related to the curriculum implementation, student acquisition of technology skills, the equitable access of technology by students, effective use of technology for record keeping, and effective use of technology to communicate with parents of students in the preschool program. Resources need to be provided in English and Spanish for all stakeholders.

Preschool staff and leadership along with District Educational Services staff, technology liaisons, and technology committee are responsible for monitoring the plan and proposing appropriate recommendations to the Superintendent for modifications if they are necessary.

#### **Indicators will be that:**

Students participating in preschool programs across the district will reach high academic standards, at or above annually established preschool goals across curricular areas. A pattern of growth will be demonstrated over the course of each ensuing school year.

Preschool students will work towards meeting identified goals/requirements along with becoming proficient in the preschool developmental standards and reaching high academic levels in their core curriculum. Technology needs for student instruction and support will be identified by staff and administration. MIS and Ed Services will work with the preschool to establish criteria for selection of devices and programs as well as a process for procurement. The criteria and process will be evaluated on an annual basis. Additionally, preschool staff will work with MIS and Ed Services to develop a process and system for ongoing repair and maintenance of preschool devices.

Ed Services, technology liaisons, the technology plan update committee and the principals will monitor the implementation of benchmarks and timelines. Ultimately, Ed Services is responsible for compiling the information and facilitating the discussion and development of next steps. Once these findings have been gathered, Ed Services will work with the technology liaisons and the technology plan update committee as well as staff and administration at the preschool to develop action plans for addressing identified issues. Some of the goals will be evaluated in June of each year of the plan. Other goals will be evaluated as set forth in this plan. The annual report to the Governing Board on technology will include information on the achievement of technology goals and next steps for the ensuing school year for the students in the preschool program.

### **3N Description of goals about the district policy or practices that support the implementation of technology in the district's libraries**

The effectiveness of the implementation of the plan and program success as it relates to school libraries will be monitored and evaluated as stated in the indicators below. All stakeholders will be informed of activities, student achievement and staff progress, through ongoing meetings, personal contacts, email, websites, letters, school bulletins, and voicemail. In this way, appropriate modifications can be made in a timely manner. Specific goals, objectives, benchmarks, and the process that will be used to monitor strategies are described in each component. Instruments of evaluation and the person responsible are listed after each goal.

#### **Indicators of Success**

Success is measured by the extent to which program indicators are met.

Library staff, teachers, technology liaisons, site principals, and Ed Services will evaluate the success of goals related to the curriculum implementation, student acquisition of technology skills, the equitable access of technology by students, effective use of technology for record keeping, and effective use of technology as it relates to the library and the acquisition of appropriate library skills.

District library media specialists along with principals, teachers, district educational services staff, technology liaisons, and technology committee are responsible for monitoring the plan and proposing appropriate recommendations to the Superintendent for modifications if they are necessary.

#### **Indicators will be that:**

The Library Media Program should be the hub of our schools and play a central role in the education of our children. The Library Media Program needs to be flexible, open-access to support all curricular areas and personal interests. Students can access the Library Media Center at any time for individual or group work. Students who can access resources independently in the Media Center – select books, find research materials, use the technology tools in order to create, collaborate and communicate – are demonstrating their ability to learn to learn. Reader's Advisory, reference help, and assistance with using technology are just some of the ways that the Library Media Specialist facilitates the individual student's curiosity to learn. Through collaborative project-based units of a study, teachers and media specialists come together to help students find, evaluate, use and present information in ways similar to real-world expectations. Children produce multimedia presentations, create websites and produce digital movies. School media centers have gone beyond the physical spaces they occupy as more of their resources are available 24/7 through the power of the Internet.

In addition to providing a variety of print and electronic resources, our media centers also need to deliver a challenging, collaborative, standards-based curriculum:

**Research and Information Fluency** - Students locate, access, evaluate, synthesize and use information effectively and efficiently to conduct research, solve problems and manage projects through all content areas.

**Communication and Innovation** - Students interpret, evaluate, communicate, and work collaboratively to create innovative products using digital and visual media.

**Technology Operations and Concepts** - Students demonstrate a sound understanding of technology concepts, systems and operations and use computers and other technologies for productivity, problem-solving, and learning.

**Digital Citizenship** - Students practice responsible, legal, safe and ethical use of information resources and technology.

**Literature Appreciation and Independent Learning** - Reading is a foundation skill for learning, personal growth, and enjoyment.

Students participating in our library curriculum will reach high academic standards, at or above established district academic goals in reading, writing, mathematics, history, and science. A pattern of growth will be demonstrated over the course of each ensuing school year.

Library Media Specialists, Ed Services, technology liaisons, the technology plan update committee, and the principals will monitor the implementation of benchmarks and timelines. Ultimately, Ed Services is responsible for compiling the information and facilitating the discussion and development of next steps. Once these findings have been gathered, Ed Services will work with the technology liaisons and the technology plan update committee as well as the library media specialists to develop action plans for developing an implementation plan and addressing identified issues. Some of the goals will be evaluated in June of each year of the plan. Other goals will be evaluated as set forth in this plan. The annual report to the Governing Board on technology will include information on the achievement of technology goals and next steps for the ensuing school year for the library program.

## **4. PROFESSIONAL DEVELOPMENT COMPONENT**

### **4A Summary of teachers' and administrators' current technology proficiency and integration skills and needs for professional development.**

Currently, NSD has over 300 total certificated employees, over 250 total classified employees, and over 20 total administrators. Professional development programs in technology are comprehensive and coordinated with other district academic goals. Technology is being integrated into the teaching and learning skills of our staff and students. Training continues to address how teachers can integrate technology into their classroom instruction to improve the academic achievement of all students. Additionally, classified staff and administrative staff will receive training to ensure the level of support at the school level has a positive effect on student learning. Staff development will focus on district and school site curriculum goals, and be guided by current research in the field.

Research has shown that with computer-aided instruction (CAI), student academic achievement improves. Technology provides students with multiple pathways to learning. As the number of computers increase in classrooms, students are provided with immense opportunities to engage in a variety of learning modalities (i.e., visual, auditory, and/or kinesthetic) during the learning process (Lee & Vail, 2005). When technology is infused within the curriculum, young learners are provided a set of learning tools to assist them in achieving developmentally appropriate academic goals across the curriculum (Judge, 2001). Drake (2001) found that CAI is one of the six best practices which support literacy learning at the elementary school level. Advocates of CAI (Chaika, 1999; Chang, 2002; Cotton, 2001; Garcia & Arias, 2000; Reeves, 1998; Schacter, 1999) claim that using CAI enhances learning through the overall positive motivational factors associated with technology integration into the curriculum. These CAI supporters indicate that CAI improves achievement through increased motivation. Cotton (2001) and Roblyer, Castine, and King (1989) claim in their extensive research reviews that CAI boosts positive attitudes of students toward learning.

Project Tomorrow released key national findings from Speak Up 2010. In this report "The New 3E's of Education: Enabled, Engaged, Empowered - How Today's Students are Leveraging Emerging Technologies for Learning", it states "we are building upon that student vision and focusing on three specific key trends that have generated significant interest, in policy discussions and within our schools and districts: mobile learning, online and blended learning and e-textbooks. Each of these trends include the essential components of the student vision of socially-based, un-tethered and digitally rich learning, but they also directly address the three new "E's of Education" – enable, engage and empower." Enabling students to reach their potential through increased access to educational resources and experts that extend learning beyond the capacities or limitations of their school or community. Engaging students in rich, compelling learning experiences that develop deeper knowledge and skill development, especially the problem-solving, creativity and critical thinking skills so highly desired for our world today. Empowering students to take responsibility for their own educational destinies and to explore knowledge with an unfettered curiosity, thus creating a new generation of life-long learners.

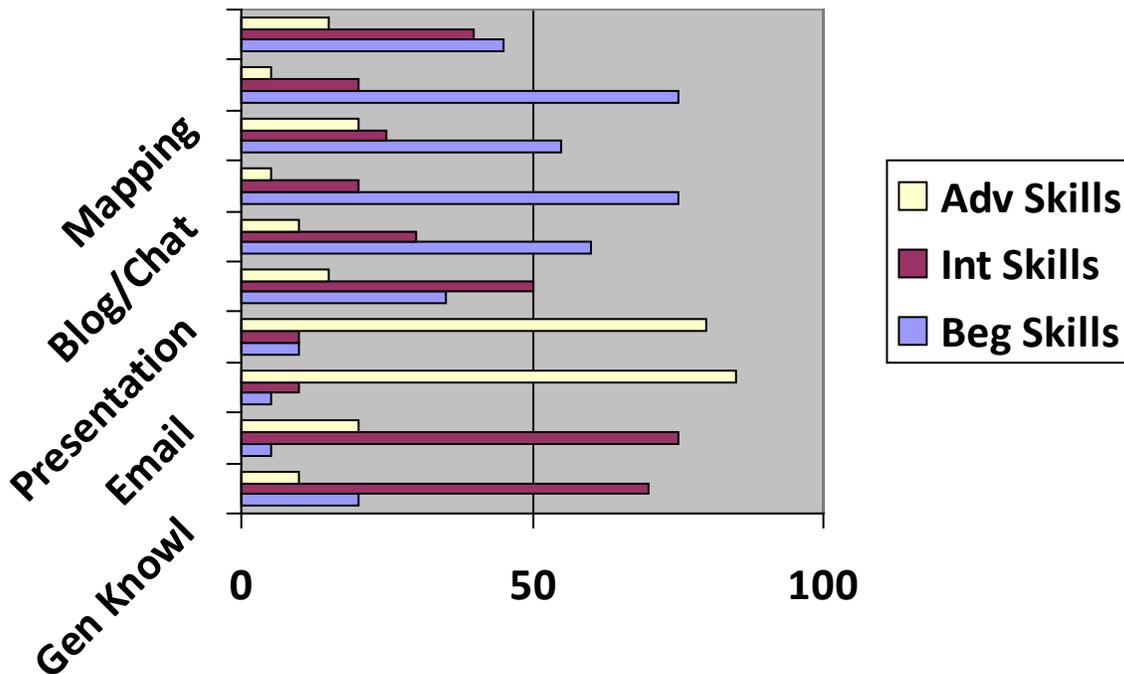
To establish the current level of teachers', classified staff, and administrators' skills and their technology use in the instructional setting a variety of assessments will be used to include a district survey developed by the technology planning committee with reference to the formerly used *EdTechProfile* survey. The district survey will provide a measure of teacher knowledge and expertise in several areas of educational technology. These results identify computer skills needed for teachers. On-going professional development activities will be based on those identified weaknesses, as well as needs identified by teachers and school administrators. The results of site and district surveys are used to develop goals for professional offerings.

## National Technology Assessment Surveys Results

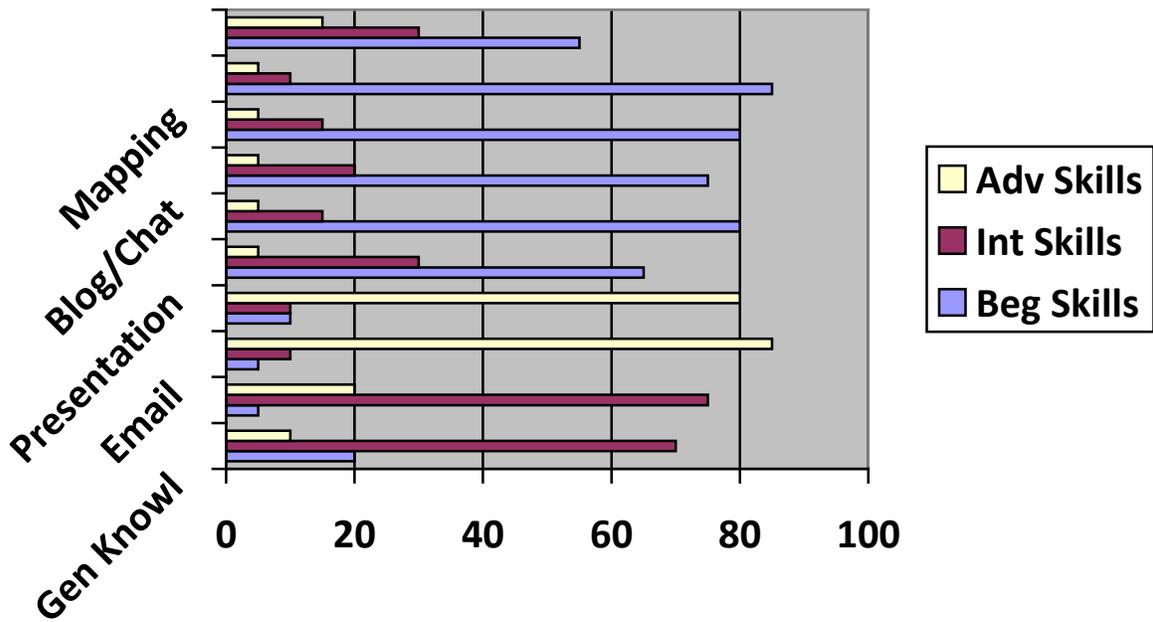
National School District teachers have been participating in the *EdTechProfile* online survey of technology proficiency for well over five years. However, it has been discontinued. Since the survey is no longer provided as a tool at the state level, the technology planning committee has developed a similar survey to be used to gather ongoing information. The information gathered will be used as the district continues to move forward with technology integration across the district. Past summary information shows that teacher skills approached the “proficient” level in only one of the nine categories word processing. Teacher skills are in the mid- to high-intermediate range in general computer knowledge, Internet use, and email. Their skill levels are in the upper range of the introductory level in databases, spreadsheets, presentation software and instructional technology.

This school year, the committee is attempting to assess all teachers, classified staff, and administrators. However, in the future, the committee may choose representatives at each school to get a complete sample of staff technology proficiency. We expect to see consistent growth in all areas. We will use this data to assist in planning staff development activities over the next several years. Currently, we are seeing that the strongest areas for staff are Internet, email and word processing skills and general computer knowledge all with staff scoring at the intermediate or advanced levels. The weakest areas for staff were in presentation, spreadsheet and newer technologies such as blogging, chatting, graphing and mapping programs, and peripherals beyond the Promethean smart board where most staff scored at the beginning and intermediate skill levels. Staff expertise using database software was by far the lowest category. (See charts below)

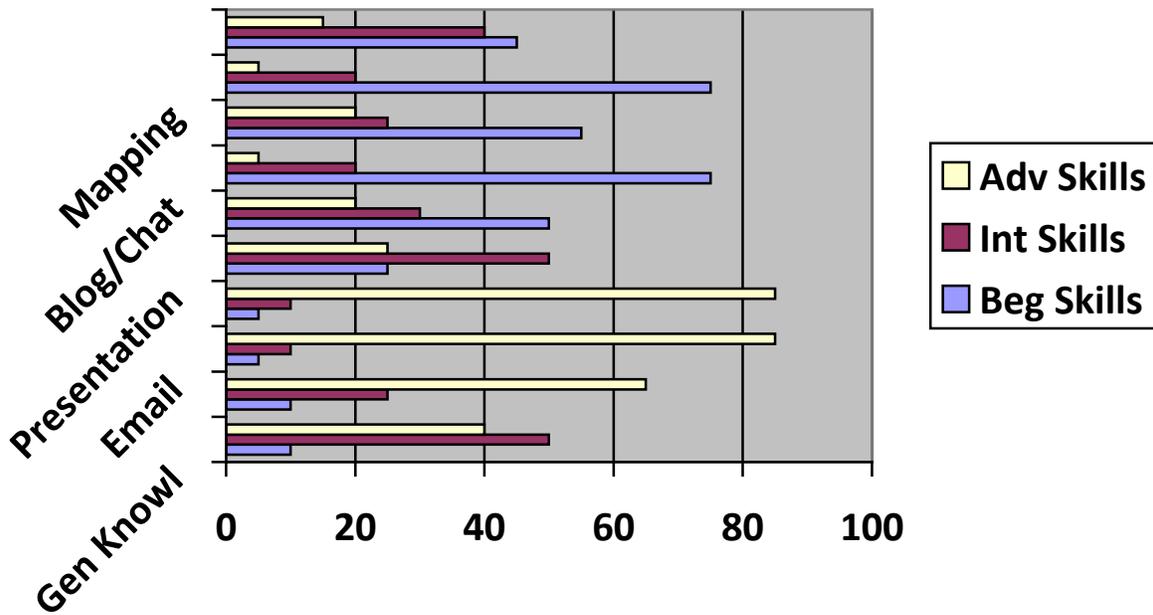
### Teacher Technology Proficiencies



**Support Staff Technology Proficiencies**



**Administrator Technology Proficiencies**



With 100% of our classrooms with Promethean ActivBoards, we are seeing a sustained sense of excitement and engagement on the part of teachers for integrating technology tools into their classroom. We will support that energy and momentum with ongoing opportunities for professional growth. We are planning after school training sessions for all levels of Promethean expertise across the district. Teacher training will continue throughout the school year on various technology pilots and projects. All technology liaisons will be informed at regularly scheduled meetings as to professional development options and opportunities.

District administrators need to continue to develop the necessary skills and proficiencies for responding to the increasing need to analyze and use data to drive decisions about curriculum and instruction. In addition, all staff needs to learn about how technology is an integral part of the common core standards and ongoing training and professional development must occur to ensure that staff is able to integrate technology into daily instruction more than for just reinforcement and practice. These goals will be accomplished through ongoing staff professional development through a variety of means and administrator training sessions that are offered throughout the year and as part of existing district administrative meetings (Instructional Leadership) that take place on a monthly basis. Evaluation of the effectiveness of this training will be done through self-evaluation surveys.

**4B List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4A) and the curriculum component objectives (Sections 3D-3K) of the plan.**

In order to more fully implement technology in the teaching and learning environment, the district must provide a sustained and intensive training program supported by a variety of ways to assist the staff.

Those methods will include:

- Coaching
- Modeling
- Substitutes for release time
- Training (During the Day, Extended Day, Extended Year)
- Attendance at conferences
- Demonstrations
- Technology Trainer of Trainers (tech TOTs)
- Technology liaisons piloting tech projects
- Forums for sharing best practices

An integral part of the district technology survey includes needs assessment. The results indicate that professional development needs are of high importance. Needs assessments vary per grade level and department, but the results indicate the following: as grade levels increase, a stronger need arises for professional development for advanced skills. Therefore, targeted trainings for specific needs can be addressed. The primary focus of these trainings is to facilitate the integration of technology in the classrooms, especially in light of the technology requirements of the common core standards. As professional development trainings are provided teacher expertise increases. Therefore, implementation of the curriculum component goals and technology will increase in the classrooms, thus, enhancing student achievement. Professional development trainings will be ongoing in order to increase the level of professional and personal technology growth per teacher. In addition, it is imperative that additional technology training occur for support staff and parents as well.

Ongoing professional development trainings are based on the Standards for the Teaching Profession and the Teacher NETS. Annual professional development consists of direct instruction, peer collaboration, and coaching. An annual timeline is designed to help with the coordination of the trainings. Administrator training is also recognized and included in this plan. As the site instructional leader, it is essential that district administration receive professional development in technology as well.

The areas for these standards are:

- Technology Operations and Concepts
- Planning and Designing Learning Environments and Experiences
- Teaching, Learning and the Curriculum
- Assessment and Evaluation
- Productivity and Professional Practice
- Social, Ethical, Legal, and Human Issues

Ongoing professional development trainings for support staff are based on a modified version of the Standards for the Teaching Profession and are included in this plan. The district recognizes the importance of training all staff in technology and as the district moves forward with integrating more technology across the district, it is imperative that staff understand these changes and requirements. Additionally, as implementation of technology occurs, it is critical to involve parents and community members in this process. Providing much needed Internet safety training and basic computer training for parents will go a long way towards ensuring safe, legal, and ethical use of technology not only at school but at home as well. Parents need to be educated along with staff in this ongoing process.

School site administrators and technology liaisons will be responsible for conducting the district technology surveys. Staff will take the district technology survey on a regular basis. Results of the surveys will be analyzed

and a variety of means will be used to improve tech proficiency skills.

The technology update committee and technology liaisons will work to develop methods to work within the structure of individual school schedules to support on-site staff development. Hence, data will be analyzed for implementation of the staff development trainings. Progress will be measured via survey data, observations, walk-throughs, and training feedback.

## **Implementation Plan**

As a district, we will use the National Educational Technology Standards for teachers (NETS) developed by ISTE (International Society for Technology in Education).

NETS for Teachers (adapted from the ISTE website)

Educational Technology Standards and Performance Indicators for All Teachers

The ISTE NETS for Students (NETS•S), the ISTE NETS for Teachers (NETS•T), and the ISTE NETS for Administrators (NETS•A) define the fundamental concepts, knowledge, skills, and attitudes for applying technology in educational settings. The ISTE NETS for Teachers has been modified to meet the needs of support staff and are included in this plan.

### **NETS\*T**

#### **TECHNOLOGY OPERATIONS AND CONCEPTS.**

Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:

Demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students)

Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

#### **PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES.**

Teachers plan and design effective learning environments and experiences supported by technology.

Teachers:

Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.

Apply current research on teaching and learning with technology when planning learning environments and experiences.

Identify and locate technology resources and evaluate them for accuracy and suitability.

Plan for the management of technology resources within the context of learning activities.

Plan strategies to manage student learning in a technology-enhanced environment.

#### **TEACHING, LEARNING, AND THE CURRICULUM.**

Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning.

Teachers:

Facilitate technology-enhanced experiences that address content standards and student technology standards.

Use technology to support learner-centered strategies that address the diverse needs of students.

Apply technology to develop students' higher order skills and creativity.

Manage student learning activities in a technology-enhanced environment.

#### **ASSESSMENT AND EVALUATION.**

Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies.

Teachers:

Apply technology in assessing student learning of subject matter using a variety of assessment techniques.

Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.

Apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.

**PRODUCTIVITY AND PROFESSIONAL PRACTICE.**

Teachers use technology to enhance their productivity and professional practice.

Teachers:

Use technology resources to engage in ongoing professional development and lifelong learning.

Continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.

Apply technology to increase productivity.

Use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

**SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES.**

Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PreK-12 schools and apply those principles in practice.

Teachers:

Model and teach legal and ethical practice related to technology use.

Apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.

Identify and use technology resources that affirm diversity

Promote safe and healthy use of technology resources.

Facilitate equitable access to technology resources for all students.

**Goal 1: Staff development will support the integration of technology into the curriculum to improve student learning and aid teachers in the delivery of the common core standards.**

OBJECTIVES	IMPLEMENTATION PLAN / BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Based on funding availability, and continued annual survey results, by September 1st of each year, the district will work with the technology liaisons and district administration to develop an annual action plan based on the goals of the district technology plan. The plan will outline and prioritize the outcomes for the school year across the areas of the plan. The plan will include a professional development component, designed to raise the ability levels of staff to move from introductory to intermediate, or from intermediate to proficient. District staff will work with schools to develop a technology component for their school site plan outlining specific school site action steps aligned to the district plan. The district will use results from district surveys to establish benchmark levels and to measure gains. Several steps are provided in the implementation plan to ensure consistent success over time.</p> <p><b>Objective 2:</b> By October 1 of each year, each school will update their technology plan for implementing and utilizing technology in the classroom as a part of the SPSA process. The plan will contain a professional development component, designed to raise the ability levels of teaching staff to move from introductory to intermediate, or from intermediate to proficient at their school level. Staff from the Educational Services department will work with schools to develop and implement their plans. Schools can use results from the district surveys to establish benchmark levels and to measure gains, or develop and use similar site surveys.</p> <p><b>Objective 3:</b> Begin to identify tech TOTs for a variety of software and district programs to work with staff on an ongoing basis.</p> <p><b>Objective 4:</b> Implement an online platform/system for accessing district training.</p>	<p>Teachers will assist in developing their site technology plan keeping in mind their own individual professional development needs for raising their proficiency levels, based on their input on the district technology survey.</p> <p>Offer classes and sessions at the district office, based not only on technology plan priorities but the annual outcomes as well.</p> <p>Identify teachers at each site who have shown exemplary skill in integrating technology. Assist these teachers to develop formal training sessions, examples of best practices, and lesson plans that are infused with technology. These teachers will be the district's technology Trainer of Trainers (tech TOTs).</p> <p>Ed Services staff will meet with all principals and key site technology staff to evaluate site needs for professional development and assist with updating the site tech plan for the year.</p> <p>Develop a list of online training resources that teachers may utilize.</p> <p>In-house staff that performs staff development services will be compensated for their work at district rates (tech TOTs).</p> <p>Develop a list of training resources, consultants, classes at the county office, exemplary sites to visit, etc. that schools may use to provide staff development opportunities. Ed Services staff will assist site principals to match resources to site needs, and will assist in evaluating and monitoring progress of site professional development plan.</p>	<p>October 1st of each school year</p> <p>Beginning October 1st of each school year</p> <p>Continue to identify TOT teachers 2014, 2015, 2016, 2017, 2018</p> <p>Fall 2014, 2015, 2016, 2017</p> <p>Add training resources throughout each year of plan</p> <p>Evaluate needs each Spring and develop plan for new year by September 1<sup>st</sup> of each school year</p> <p>Publish Fall 2014, 2015, 2016, 2017</p>

Evaluation Instrument(s)	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
<p>District technology survey and other survey results, annual surveys, end of year follow up, attendance logs for staff development activities.</p>	<p>Surveys and end of year follow- up.</p>	<p>District, site principals and teachers will plan activities schedules and will evaluate based on feedback.</p>	<p>Survey results, bar graphs, attendance logs kept by site principals and tech liaisons, assisted by Educational Services staff.</p>

**Goal 2:** Track and monitor teacher technology proficiency using the district technology survey and additional means as possible.

OBJECTIVES		IMPLEMENTATION PLAN / BENCHMARKS		TIMELINE
<p><b>Objective 1:</b> Ongoing goals for professional development in technology will be included with the district survey results and used as a means to measure progress towards established goals, objectives and benchmarks. We will aim for 100% of our instructional staff completing the online assessment each year.</p> <p><b>Objective 2:</b> We will gather and publish summary data from these assessments, and the district-level committee along with the technology liaisons will use this information to direct and focus our training efforts each school year.</p>		<p>School site principals and technology liaisons will organize district survey assessment at sites, aiming for 100% of staff each year and maintaining that level of participation during each subsequent year of the plan. District staff development committee will analyze assessment data for planning for the year.</p> <p>All instructional staff will complete the district technology survey on an annual basis. All other staff will complete the survey every three years. Data collected will be presented in a variety of formats (charts, graphs, etc.).</p> <p>District technology survey assessments will continue, with the goal of bringing staff to higher levels of technology proficiency. District staff development committee, technology liaisons, and Ed Services staff will monitor the assessment data to continue to develop training opportunities directed at the need.</p>		<p>October of each school year</p> <p>October of each school year</p> <p>October of each school year</p>
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Principals and staff will review teacher growth charts, and summarize findings at staff meetings.	Annual surveys, with end of year follow-up.	<p>Site principals and teachers will plan activities and schedules and will evaluate based on feedback.</p> <p>Review of school district survey results should show 80% of teachers have moved up one level in tech proficiency by end of year of each year or have begun using a new piece of hardware or software program to further their technology integration.</p>	School Principals, site teachers, technology liaisons, the district Technology Committee, and Ed Services staff will review survey and share their feedback of the survey data.	

**Goal 3:** Help staff attain increasing levels of proficiency based on the NETS standards/modified NETS standards, through a focus on site-based training. Help staff attain increasing levels of proficiency based on job needs and requirements.

Goal 3: Help staff attain increasing levels of proficiency based on the NETS standards/modified NETS standards, through a focus on site-based training. Help staff attain increasing levels of proficiency based on job needs and requirements.			
OBJECTIVES		IMPLEMENTATION PLAN / BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Each school site forms a team to update site technology plan as part of their regular school site plan process. Each plan will be anchored in the district strategic plan and LCAP curriculum goals and customized to the individual needs and personality of the school.</p> <p><b>Objective 2:</b> Each department will review the survey results, get staff input and feedback, and provide information to the Ed Services Staff who will include these needs in the district annual plan.</p> <p><b>Objective 3:</b> Continue to develop a list of district technology Trainer of Trainers to assist in the implementation of hardware, software and programs across the district in a variety of venues and on a variety of devices.</p>		<p>School tech teams and district department staff will work to create training activities, based on needs, which will be available throughout the year. Ed Services will support this effort with staff, funding, and expertise. Sharing of information about successes in technology integration training is supported.</p>	<p>October of each school year</p>
		<p>School site and department plans are refined and perfected on an annual basis. Techniques, strategies and best practices are shared among the 10 school sites and district, and some resource sharing begins to take place. The stage is set for creating a rich environment of infusing educational technology into the classroom environment.</p>	<p>Each year during monthly Tech Liaison and Tech Planning Meetings</p>
		<p>Each school site publishes a calendar of at least 4 on-site sessions of technology training (one each quarter). Each department publishes a calendar of at least 1-2 sessions of technology training over the course of the school year. District and school newsletters highlight exemplary classrooms practices.</p> <p>Teachers utilize school site-based training sessions and department staff utilize a variety of training sessions, as measured by attendance and teacher evaluation sheets. In-house tech trainers are actively providing training, support and mentoring, as measured by activity logs and principal observation.</p>	<p>Quarterly in 2014, 2015, 2016, 2017, 2018</p> <p>Quarterly in 2014, 2015, 2016, 2017, 2018</p>
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
Self-evaluation and review.	Annual surveys, with end of year follow-up.	Site principals, teachers, department staff, technology liaisons, tech TOTs, and Ed Services staff will plan activities and schedule events based on data.	Feedback from participating teachers, staff, instructors, principals, technology liaison teachers, Ed Services staff, tech TOTs, and technology planning committee.

**Goal 4: Maximize the effectiveness of the district website for professional development and explore additional means for staff development recordkeeping.**

OBJECTIVES	IMPLEMENTATION PLAN / BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Develop calendar of professional development classes aligned to the needs as a result of the survey data. Teachers will be able to view all scheduled training opportunities district-wide, and to enroll with online forms. Training sessions will have links to handouts and related web-based resources for teachers.</p>	<p>Develop the online capability of teachers to view professional development offerings, enroll in classes, track their attendance, and even record continuing education units.</p>	<p>Fall 2014; then after, ongoing</p>
<p><b>Objective 2:</b> Develop an online database of information on hardware, software, and educational applications that can be accessed at any time. This will include trouble-shooting guides, frequently asked questions, tips and tricks, suggestions for implementation, and links to best classroom practices in technology that will be developed by teaching staff (see above).</p>	<p>Expand use of podcasts, screencasts, vodcasts, webinars, etc. that include short online video tutorials on critical skill topics.</p>	<p>Fall 2014; then after, ongoing</p>
<p><b>Objective 3:</b> Develop a webpage of links or access to links, etc. via Edmodo or other resources which provide online professional development resources teachers may use to support their individual plans for increasing their technology proficiency.</p>	<p>Topics will include Promethean Board FAQs, district hardware FAQs, and district software FAQs, etc.</p>	<p>*Spring 2014; then after, ongoing</p>

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
<p>District technology survey and other information and results.  Attendance logs for staff development activities.</p>	<p>Annual surveys, end of year follow-up.</p>	<p>Site principals, department heads, technology liaisons, district technology committee, teachers, and Ed Services staff will plan activities and schedules based on data and feedback.</p>	<p>Survey results, bar graphs, attendance logs kept by site principals and tech liaisons. Assisted by Ed Services staff.</p>

**Goal 5: Staff development efforts with the administrative staff focusing on the ISTE Technology Standards for Administrators (NETS – A).**

The areas for these standards are:

- Leadership and Vision
- Learning and Teaching
- Productivity and Professional Practice
- Support, Management, and Operations
- Assessment and Evaluation
- Social, Legal and Ethical Issues

We will use the existing structure of district leadership meetings as well as additional ad hoc training sessions to present a series of brief and focused workshops on strategic skills and issues in technology. Our Ed Services staff will work with principals, department heads, technology liaisons, and the district technology planning committee to determine the topics.

**Topics for Administrator Training**

School principals are becoming proficient in using data management technology, including using OARS, the County Student Information System (Genesis) and the district data warehouse (Report Manager). They are fully versed in creating and interpreting essential reports of student progress. They work on a regular basis with grade level teacher groups to improve teaching strategies based on data generated from the various information systems. Over the next four years, administrators will want to become involved in higher level technology projects in the classroom and understand how students benefit from them. In addition, principals continue to need to be well versed in the programs that students use in order to assist teachers in their ongoing implementation.

Goal 5: Professional development for administrators will be an ongoing part of Instructional Leadership group activities.				
OBJECTIVES		IMPLEMENTATION PLAN / BENCHMARKS		TIMELINE
<b>Objective 1:</b> School administrators and district department heads will all take the district technology survey.		School administrators will base their professional development plan on the ISTE standards for administrators.		Spring 2014, 2015, 2016, 2017
<b>Objective 2:</b> School administrators and department heads will, as a group, set their own agenda for a series of mini-workshops throughout each year.		At the beginning of each year, Ed Services staff will work with district administration to create and publish a calendar of topics for training, including topics such as Promethean ACTIVstudio, digital video production, podcasting and weblogs.		Fall 2014, 2015, 2016, 2017
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
District technology surveys and other information and survey results.  Attendance logs for staff development activities.	Annual surveys, end of year follow-up.	District technology leadership, site principals, and department heads will plan activities and schedules and will self-evaluate based on feedback.	Survey results, bar graphs, attendance logs kept by Ed Services.	

***Goal 6: Staff development efforts with support staff focusing on the ISTE Technology Standards for Teachers (modified for support staff).***

The areas for these standards are:

Technology Operations and Concepts

Planning and Designing Learning Environments and Experiences

Teaching, Learning and the Curriculum

Assessment and Evaluation

Productivity and Professional Practice

Social, Ethical, Legal, and Human Issues

We will work to establish an ongoing structure of meetings and training sessions to present a series of brief and focused workshops on strategic skills and issues in technology. Our Ed Services staff will work with principals, department heads, technology liaisons, and the district technology planning committee to determine the topics.

**Topics for Support Staff Training**

Support staff are proficient in various user areas (i.e., email, texting, etc.) Over the next four years, support staff will become involved in ongoing technology training related to job requirements that will benefit them and assist them in their day-to-day work duties and responsibilities.

**NETS\*T (MODIFIED FOR SUPPORT STAFF)**

**TECHNOLOGY OPERATIONS AND CONCEPTS.**

Support staff demonstrates a sound understanding of technology operations and concepts.

Support Staff:

Demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students)

Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

**PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES.**

Support staff assists in the planning, designing and implementation of effective learning environments and experiences supported by technology.

Support Staff:

Assist with designing and implementing developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.

Knowledge of current research on teaching and learning with technology when planning learning environments and experiences.

Plan for the management of technology resources within the context of learning activities.

Plan strategies to manage student learning in a technology-enhanced environment.

**TEACHING, LEARNING, AND THE CURRICULUM.**

Support staff assists with the implementation of curriculum that include methods and strategies for applying technology to maximize student learning.

Support Staff:

Facilitate technology-enhanced experiences that address content standards and student technology standards.

Use technology to support learner-centered strategies that address the diverse needs of students.

Apply technology to develop students' higher order skills and creativity.

Manage student learning activities in a technology-enhanced environment.

**ASSESSMENT AND EVALUATION.**

Support staff helps to apply technology to facilitate a variety of effective assessment and evaluation strategies.

Support Staff:

Apply technology in assessing student learning of subject matter using a variety of assessment techniques.

Use technology resources to review student data, interpret results, and work with teachers to improve instructional practice and maximize student learning.

Apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.

**PRODUCTIVITY AND PROFESSIONAL PRACTICE.**

Support staff use technology to enhance their productivity and professional practice.

Support Staff:

Use technology resources to engage in ongoing professional development and lifelong learning.

Continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.

Apply technology to increase productivity.

Use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

**SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES.**

Support staff understands the social, ethical, legal, and human issues surrounding the use of technology in PreK-12 schools and apply those principles in practice.

Support Staff:

Models and is able to teach legal and ethical practice related to technology use.

Applies technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.

Promotes safe and healthy use of technology resources.

Helps the teacher facilitate equitable access to technology resources for all students.

**Goal 6: The National School District will utilize multiple approaches to providing professional development for staff, including alternatives to the traditional instructor-led class.**

OBJECTIVES	IMPLEMENTATION PLAN / BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Proficient-level teachers can mentor small groups of introductory-level teachers at their site. They can shepherd the group through developing their skills as indicated by the results of the district technology surveys (such as email use, report building, and webpage creation).</p>	<p>Sites and departments will develop a plan for the year, utilizing as much as possible, in-house talent and resources. District staff will support these efforts.</p>	<p>Establish in Fall of each year (2014, 2015, 2016, 2017)</p>
<p><b>Objective 2:</b> Ed Services staff will meet with all principals, department heads and relevant technology staff to review district technology survey results and work with their staff to develop a list of needs for training.</p>	<p>Technology liaisons currently do not have release time built into their contracts. They need several release days during the year (at least 2-3 per year), for site support and training.</p>	<p>Fall 2014, 2015, 2016, 2017</p>
<p><b>Objective 3:</b> Mini-sessions could include short classes taught after school, evenings, or on weekends. These sessions would be sponsored by the District and held at various locations using a wireless, mobile lab. These sessions can be directed toward topics recommended in minimum proficiency requirements as noted above.</p>	<p>Mini-sessions will cover topics ranging from computer basics, to the use of specific software types for instructional use. The sessions should meet district training standards and be designed to meet the needs of users with different ability levels. Sessions should provide staff with material to be applied immediately.</p>	<p>Fall 2014; and ongoing thereafter</p>
<p><b>Objective 4:</b> Special technology in-services and pilot projects can be developed to cover broader technology issues. These sessions should be directed towards the topics identified by the needs assessment, and in assisting teachers to reach the minimum technology proficiency level. Outside presenters should be considered a resource for these events. In-services should use minimum days as possible for maximum participation.</p>	<p>The district's resources for technology training will always be limited. Therefore, training two or three teachers and then having them train others within the school will always be an effective way to ensure that the needed technological knowledge is shared throughout the district. Out-sourcing the initial training of trainers is recommended as well as some follow-up training sessions as well.</p>	<p>Annual staff development calendars 2015, 2016, 2017</p>
<p><b>Objective 5:</b> Investigate feasibility of district technology coach position to facilitate technology implementation in the classroom by working with teachers and students.</p>	<p>Ed Services will work with technology liaisons to develop and submit parameters for district technology coach position as LCFF funding comes on line.</p>	<p>Begin work in Fall 2014</p>

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
<p>District technology surveys and other information and survey results. Attendance logs for staff development activities. Feedback from administrators and participating staff.</p>	<p>Annual review</p>	<p>During school-site review processes, professional development activities will be analyzed and modifications made to fit individual school needs.</p>	<p>Each school site, under the direction of the principal, will develop implementation plans and evaluation strategies. Each department head will develop implementation plans and evaluation strategies. Ed Services staff will assist.</p>

***Goal 7: Staff development efforts with parents focusing on needs they identify through district and school site surveys.***

The areas for these standards are:

Learning and Teaching

Productivity and Professional Practice

Support, Management, and Operations

Social, Legal and Ethical Issues

We will work to establish a structure and training sessions to present a series of brief and focused workshops for parents, not only at the district office but at various times and locations throughout the district.

**Topics for Parent Training**

Parents indicate the need to understand a variety of technology tools and uses of those tools and how they can assist their students as they use technology at home.

Our Ed Services staff will work with parents, teachers, staff, principals, department heads, technology liaisons, and the district technology planning committee to determine topics for training.

**4C Describe the process(es) that will be used to monitor the professional development section (4B) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.**

The technology liaisons, district technology committee, principals and Ed Services will evaluate indicators of growth in technology integration on an annual basis. The committee will use the information to refine and refocus the plan for technology training. They will determine whether the plan ought to be accelerated, or whether the plan should be slowed down and given more resources.

The committee will consider feedback from principals' observations of classroom activities as well as questionnaires and other information from teachers about technology integration.

The committee will review attendance numbers from staff development and training sessions as well as online training documentation.

Relevant standardized test scores from core curricular areas will be studied each year, to determine how technology use is affecting student achievement.

Teachers will take the district technology survey each year, providing a measure of growth in technology proficiency skills.

Other district staff will take the district technology survey every three years, providing an ongoing measure of growth in technology proficiency skills.

Feedback and evaluations from parents after training will be used to measure parent growth in technology proficiency skills and to determine applicable topics for further training.

Finally, the technology liaisons, tech committee and Ed Services will work with Human Resources, the Cabinet and Board to recognize outstanding achievements in classroom uses of technology, and encourage others to replicate the best practices.

Site administrators, teachers and pertinent staff will periodically receive training in the use of the student information system and other district supported software programs to influence school site decisions. Training may consist of analyzing informational reports dealing with classroom performance and school wide disaggregated student data. Monitoring and evaluation of the staff development component is delineated [see evaluation information following each goal]. Technology Liaisons, principals and the Superintendent will monitor the implementation of the staff development component together with Ed Services staff. Progress will be monitored annually and a report will be made to the Board of Education in the spring/early summer of each year. Changes in student learning resulting from professional staff development will be measured by comparing student test scores and portfolios before and after implementation of curricular goals.

**Indicators of Success:**

Success is measured by the extent to which program indicators are met in the areas addressed in a particular goal.

Technology liaisons, tech planning committee, principals, and Ed Services staff will evaluate progress toward goals related to acquisition of technology skills, and integration of technology into curriculum units, record keeping, and communication with parents.

Technology liaisons, tech planning committee, principals, and Ed Services staff will monitor the adherence to the plan and make appropriate recommendations to the Superintendent.

**Indicators will be that:**

All staff will show growth towards intermediate proficiency levels and above on all areas of the district survey beginning with 2014 and continuing thereafter. All staff will report a minimum frequency of "between weekly and monthly" on all areas of the district technology survey continuing through 2014-2015, and beyond.

## **5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT AND SOFTWARE COMPONENT**

### **Goals**

The standards for technology are determined by the Information Management Services department in the district, in conjunction with the technology liaisons, school site, district technology committee, and cabinet. Recommendations are established based on current budget and student needs. The following statements represent the goals of this plan for standards for infrastructure, hardware, technical support and software across the district:

- These are the goals that focus on standardization across the district:
- Standardization of district-supplied equipment, software, network and computer operating systems
- Standardization of district-supplied support to all district sites to include personnel needs as technology needs and service requirements increase across the district
- Parameters for device platforms to be used by students, staff and administration to support common core standards and other curriculum needs
- A plan, which addresses upgrades, replacement and increase of equipment
- Standardization of district-supplied computer furniture for classrooms
- A model for one-to-one computing that helps teachers and students meet the requirements of common core standards as well as the Students NETS
- A model for professional development in technology for all district stakeholders

### **5A Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the District that will be used to support the Curriculum and Professional Development Components (Sections 3 & 4) of the plan.**

#### **Hardware Infrastructure and Network Services:**

In 2001, 2008, and planned again for 2015 (if eRate approval comes forth), the district upgraded all of its core network routers and fiber optic switching at each site, consolidating all of its edge routing and layer 2 switching into its Network Operations Data Center. This data center was constructed in 2001 to consolidate file and print, email, web, remote access, domain naming, dynamic host protocol, application, data storage, back up, voice and network management services in a single location for more efficient and effective network management and delivery of service.

New servers were installed at the district network operations center (NOC) in 2001 and augmented in 2008, to facilitate the utilization of hardware resources to provide centralized network storage, distributed, thin-client based processing and virtualization of existing network servers to consolidate resources to a more manageable level, providing a long term reduction in technology operating costs. Major version software upgrades to the district's present Novell network operations and collaborative messaging platforms were completed to move the district's operating system platform to a Linux-based, open source model that will result in lowered licensing and operational costs at the server and client level.

Concurrently, new data servers were deployed at each of the district's 10 school sites to improve the capacity and speed by which file and print services were rendered and to provide a robust Internet web services server at each school site.

The district provides Primary DNS, DHCP, Internet mail, spam filtering, and CIPA-compliant Internet filtering to all classrooms via its network infrastructure from its Network Operations Center.

External addressing and firewall services are provided by the SDCOE and National has a Cisco PIX firewall handling internal firewall services. All schools have dedicated servers which provide secondary DHCP, WAN/LAN email, DNS and file/print services to students and staff. These servers are RAID-5 with gigabit connectivity to the district WAN.

Several of our schools have 24- to 32-workstation computer labs for Internet, email, and educational instruction use by students and teachers. In addition, these labs are used for staff training and for after school programs.

Printing, scanning, imaging and video services are provided by either networked or individual classroom devices.

### **Internet Filtering/Spam Prevention Infrastructure:**

The district has in place an Internet filtering appliance at the data center utilizing a proprietary site filtering subscription service to monitor and block access to Internet sites and services that violate the district's Internet acceptable use policies across the district wide area network. This appliance is also designed to block malware applications from being delivered to client workstations.

Additionally, in 2005, the district adopted a significantly enhanced email spam prevention service by installing a subscription-based, Internet mail gateway-centric, locally managed spam/graymail-blocking solution to reduce the proliferation of spam mail to the district.

### **Wireless Access Infrastructure:**

All district campuses and administrative locations have complete encrypted security wireless Internet and network access for use in mobile classroom, specialized education and instructional enhancement environments. All district wireless access points were upgraded to encrypted 802.11g wireless standards in early 2012, increasing localized bandwidth to accommodate increasing use of wireless technology at district sites to facilitate mobile computing classroom and mobile computing lab needs as well as reduce network latency due to insufficient wireless bandwidth. The district plans to augment this service as noted in the section "Future Technology Augmentation" below. The district plans to upgrade this technology significantly in 2015-2016 (with eRate), replacing its current access points with 8-radio multi-node wireless access points that will allow for increased wireless utilization to meet common core needs, the requirements of common core testing and one-to-one student computing initiatives.

### **Remote Access Infrastructure:**

At present all district users have the capability to access district email and network retained files remotely via web browser. This can be accomplished via conventional Internet services utilizing the district's intranet or any web browser regardless of software platform from any home-based desktop, laptop or personal device with Internet access.

The district has in place the infrastructure to accommodate full remote access to district network resources at any point in the future based on the goals and objectives defined for such access. It plans to augment this service as noted in the section "Future Technology Augmentation".

### **Telephony Infrastructure:**

Telephones are installed in every district classroom, library and administrative office to facilitate communications capabilities among staff and with parents. Cell phones are deployed at each site to provide necessary communications portability providing immediate access to principals and administrators for emergency, safety and public communications needs.

Telephony services provide phones in and voicemail to every classroom. The district provides a phone number and voicemail service for every teacher. Teachers can access their voicemail from any phone at any time in or outside the district. Each school has a PBX switch on site routing all calls inbound and outbound via a dedicated AT&T T-1 line. The district office PBX processes its calls via a DS-3 connection to AT&T. Each school has a non-PBX dedicated land-line for emergency use only. The district has a satellite service phone for district-wide emergency use. The District phone system has the capability to provide voice-over-IP and unified messaging services which are planned to be activated by 2017 contingent on project funding.

In 2008, the district installed specialized PBX telephone system controllers that update the district's present eleven year-old phone infrastructure and provides a hardware/software platform by which low-cost voice-over-IP phone services may be introduced to the district. These controllers provide full hardware redundancy in the event of network outages impacting district-wide VoIP telephone communications.

**IDENTIFICATION OF COMPUTERS AND MOBILE DEVICES**

The following tables provide a pictorial representation of the aging of computers and devices (which includes netbooks, student mini laptops, ipods, and ipads) by school (table 1), aging of computers by school and percentage (table 2), distribution of mobile devices by school and by type (table 3), and distribution of mobile devices by school and by type of percentage of all computer devices at each site indicated. These tables provide a relatively effective and efficient way in which to track standardization, replacement, etc. across the district as well as to continue to highlight needs in infrastructure, software and support as growth in technology continues.

**NSD Computer Aging  
Analysis**  
as of 1/24/13

**TABLE 1: Aging of computers by School (no tablets, excl. D.O. and Pre-school)**

School	1yr. or less	Mobile 1yr or less	2-3 yrs.	Mobile 2-3 yrs	4-5 yrs.	5-7 yrs.	8 yrs.+	Sub Totals	CRTs
Central	3	135	83	74	13	84	45	437	60
El Toyon	9	49	8	153	6	37	43	305	25
Ira Harbison	1	114	112	59	0	32	31	349	30
Kimball	2	55	60	58	0	83	7	265	46
Las Palmas	27	140	62	70	0	36	0	335	56
Lincoln Acres	13	34	106	67	15	61	4	300	74
Olivewood	0	35	94	72	0	98	9	308	58
John Otis	44	42	57	60	0	53	5	261	94
Palmer Way	42	112	66	33	20	36	19	328	61
Rancho	18	113	35	93	0	67	31	357	120
<i>Sub total schools:</i>	<b>159</b>	<b>829</b>	<b>683</b>	<b>739</b>	<b>54</b>	<b>587</b>	<b>194</b>	<b>3245</b>	<b>624</b>
Pre-School	4	10			54				
District Office									
<i>Admin</i>	1		3					4	
<i>Business</i>	13	1			3			17	
<i>CNS(inc. kitchens)</i>	15	2			2	8		27	
<i>Ed Services</i>	39	11	3	3	2	1		59	
<i>HR</i>	1	2		2	1	1		7	
<i>MIS</i>			4	5			2	11	
<i>M&amp;O</i>	3		1		2			6	
<i>Purchasing</i>	1			1		2		4	
<i>Transportation</i>	2							2	
<i>FRC</i>		2						2	
<i>Sub total DO:</i>	<b>75</b>	<b>18</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>12</b>	<b>2</b>	<b>139</b>	
<b>TOTALS</b>	<b>238</b>	<b>857</b>	<b>694</b>	<b>750</b>	<b>118</b>	<b>599</b>	<b>196</b>	<b>3384</b>	<b>624</b>

**TABLE 2: Aging of computers by school, percentage totals by category (no tablets, excl. D.O. and Pre-school)**

<b>% Aging analysis</b>	<b>1yr. or less</b>	<b>Mobile 1yr or less</b>	<b>2-3 yrs.</b>	<b>Mobile 2-3 yrs</b>	<b>4-5 yrs.</b>	<b>5-7 yrs.</b>	<b>8 yrs.+</b>	<b>% TOTALS</b>	<b>Mobile totals</b>
Central	0.69	30.89	18.99	16.93	2.97	19.22	10.30	100.00	47.83
El Toyon	2.95	16.07	2.62	50.16	1.97	12.13	14.10	100.00	66.23
Ira Harbison	0.29	32.66	32.09	16.91	0.00	9.17	8.88	100.00	49.57
Kimball	0.75	20.75	22.64	21.89	0.00	31.32	2.64	100.00	42.64
Las Palmas	8.06	41.79	18.51	20.90	0.00	10.75	0.00	100.00	62.69
Lincoln Acres	4.33	11.33	35.33	22.33	5.00	20.33	1.33	100.00	33.67
Olivewood	0.00	11.36	30.52	23.38	0.00	31.82	2.92	100.00	34.74
John Otis	16.86	16.09	21.84	22.99	0.00	20.31	1.92	100.00	39.08
Palmer Way	12.80	34.15	20.12	10.06	6.10	10.98	5.79	100.00	44.21
Rancho	5.04	31.65	9.80	26.05	0.00	18.77	8.68	100.00	57.70
<b>All School average</b>	<b>5.18</b>	<b>24.68</b>	<b>21.25</b>	<b>23.16</b>	<b>1.60</b>	<b>18.48</b>	<b>5.66</b>	<b>100.00</b>	<b>47.84</b>
District Office	53.96	12.95	7.91	7.91	7.19	8.63	1.44	100.00	20.86
<b>All District Average</b>	<b>7.03</b>	<b>25.33</b>	<b>20.51</b>	<b>22.16</b>	<b>3.49</b>	<b>20.88</b>	<b>5.79</b>	<b>105.19</b>	<b>47.49</b>

**TABLE 3: Distribution of Mobile devices by school, by type (excl. D.O. and Pre-school)**

<b>School</b>	<b>Mobile (net/notebook) totals</b>	<b>All Mobile (incl tablets)</b>	<b>Enrollment</b>	<b>Students /computer</b>	<b>Students /mobile</b>	<b>Netbooks</b>	<b>Mini- Notebooks</b>	<b>Laptops</b>	<b>Chromebooks</b>	<b>iPads</b>	<b>iPods</b>	<b>Carts</b>	<b>Notes</b>
Central	209	248	725	1.66	3.47	33	147	29	0	38	1	4	
El Toyon	202	206	500	1.64	2.48	127	42	33	0	4	0	2	
Ira Harbison	173	274	589	1.69	3.40	33	3	33	104	3	98	5	3 carts are for iPods. Other carts for netbooks/notebooks
Kimball	113	117	397	1.50	3.51	33	55	25	0	4	0	1	
Las Palmas	210	214	690	2.06	3.29	33	130	47	0	4	0	1	
Lincoln Acres	101	118	642	2.14	6.36	33	43	25	0	17	0	2	
Olivewood	107	110	650	2.11	6.07	33	39	35	0	3	0	1	
John Otis	102	106	479	1.84	4.70	33	37	32	0	2	2	1	
Palmer Way	145	149	625	1.91	4.31	33	50	62	0	2	2	1	
Rancho	206	210	504	1.41	2.45	57	113	36	0	4	0	5	
<b>Sub total schools:</b>	<b>1568</b>	<b>1752</b>	<b>5801</b>	<b>1.79</b>	<b>3.70</b>	<b>448</b>	<b>659</b>	<b>357</b>	<b>104</b>	<b>81</b>	<b>103</b>	<b>23</b>	

**TABLE 4: Distribution of Mobile devices by school, by type as percentage of ALL computing devices (excl. D.O. and Pre-school)**

<b>% Mobile</b>							
<b>Distribution analysis&gt;</b>	<b>Netbooks</b>	<b>Mini-Notebooks</b>	<b>Laptops</b>	<b>Chromebooks</b>	<b>iPads</b>	<b>iPods</b>	<b>TOTALS</b>
Central	6.93	30.88	6.09	0.00	7.98	0.21	52.10
El Toyon	41.10	13.59	10.68	0.00	1.29	0.00	66.67
Ira Harbison	7.33	0.67	7.33	23.11	0.67	21.78	60.89
Kimball	12.27	20.45	9.29	0.00	1.49	0.00	43.49
Las Palmas	9.73	38.35	13.86	0.00	1.18	0.00	63.13
Lincoln Acres	10.41	13.56	7.89	0.00	5.36	0.00	37.22
Olivewood	10.61	12.54	11.25	0.00	0.96	0.00	35.37
John Otis	12.45	13.96	12.08	0.00	0.75	0.75	40.00
Palmer Way	9.94	15.06	18.67	0.00	0.60	0.60	44.88
Rancho	15.79	31.30	9.97	0.00	1.11	0.00	58.17
<b>All device average&gt;</b>	<b><u>12.68</u></b>	<b><u>18.65</u></b>	<b><u>10.10</u></b>	<b><u>2.94</u></b>	<b><u>2.29</u></b>	<b><u>2.92</u></b>	<b><u>53.99</u></b>
<b>All mobile average&gt;</b>	<b><u>25.57</u></b>	<b><u>37.61</u></b>	<b><u>20.38</u></b>	<b><u>5.94</u></b>	<b><u>4.62</u></b>	<b><u>5.88</u></b>	<b><u>100.00</u></b>

## **Strategic Expansion:**

The District has implemented expansion of the network capacity using a modular approach. This allows us to expand when ERATE and other funding sources are made available to the District and to delay or reduce circuitry when applications are slow or late in being awarded. This plan also allows us to guard against excess capacity while maintaining necessary network resources to support curriculum and educational services needs at any point in time.

## **Description of Existing Infrastructure:**

All direct points of presence on the district WAN and to the Internet are currently comprised of 100 Mbps bandwidth switched links via an OC12 fiber optic interface provided by Cox Communications on a dedicated, private fiber optic ring. This WAN connects the district's 10 schools and District Office and provides Internet intranet, student and financial information to the district staff and students as appropriate.

Individual school LAN, file, print, email, Internet and network storage interfaces are provided by a homogenous layer 2 switched network using approximately 15 Cisco switches and 1 Cisco router for each school's LAN, consolidated and routed to Cox Communications from the District Network Operations Center via the San Diego County Office of Education. (SDCOE).

Each school has a 1 gigabit fiber-optic backbone that currently provides 100 Mbps high-speed network connectivity to the desktop for all district classrooms and offices. Most classrooms and offices are wired with Category 6 cabling. Those that are not are wired with category 5e cabling. Each classroom has a minimum of 5 network drops and are outfitted with gigabit-uplink workgroup switches to optimize the number of network resources that can be utilized per classroom.

The district schools and the district office have installed 802.11g- standard encrypted wireless networks to facilitate mobile computing classrooms and mobile computing lab needs. There are approximately 8 access points per school site, 80 in total.

The district provides Primary DNS, DHCP, Internet mail, spam filtering, and CIPA-compliant Internet filtering to all classrooms via its network infrastructure from its Network Operations Center via a dedicated Internet filtering appliance and a dedicated email Spam and malware filtering server.

External addressing and firewall services are provided by SDCOE and National has a Cisco 5000 PIX firewall handling internal firewall services.

All schools have dedicated servers which provide secondary DHCP, WAN/LAN email, DNS and file/print services to students and staff. These servers are RAID-5 with gigabit connectivity to the district WAN.

Each school has a 30-workstation computer lab for Internet, email, and educational instruction use by students and teachers. In addition, these labs are used for staff training and for after school programs.

Printing, scanning, imaging and video services are provided by either networked or individual classroom devices.

Telephony services provide phones in and voicemail to every classroom. The district provides a phone number and voicemail service for every teacher. Teachers can access their voicemail from any phone at any time in or outside the district. Each school has a PBX switch on site routing all calls inbound and outbound via a dedicated AT&T T-1 line. The district office PBX processes its calls via a DS-3 connection to AT&T. Each school has a non-PBX dedicated land-line for emergency use only. The district has a satellite service phone for district-wide emergency use. The District phone system has the capability to provide voice-over-IP and unified messaging services.

The acquired bandwidth is intended, along with providing normal file, print, Internet and email services, to allow collaborative teaching with both District and non-district resources as well as provide distance learning capabilities for each classroom. Additionally, the bandwidth will be utilized to provide access to educational materials on demand via static or dynamic video and audio delivery mechanisms that will be used to support district and State curriculum standards.

Bandwidth will also be extended to provide teacher training and professional growth opportunities that otherwise would have to be conducted off site at significant expense to the district.

This bandwidth is completely manageable in terms of increasing or decreasing the available network resources contingent on demand for services and/or budgetary considerations based on existing bandwidth provider contracts.

### **Description of the level of ongoing technical support the district will provide:**

The district currently manages over 8000 separate technologic assets comprising networked routers and switches, wireless access points, networked servers, office and classroom workstations, display monitors, video projectors, network cabling, telephony switches, individual telephones, network filtering and monitoring appliances, battery UPS devices, keyboards and pointing devices (mice and pens).

To manage these assets, the district currently has a staff of four technicians (2 NOC based, and 2 school based), including a technical services supervisor to monitor, maintain, troubleshoot, repair and replace infrastructure assets as needed throughout. The division of labor for the management of assets is divided along networked asset and classroom asset technical maintenance and management functions. As the district continues to grow its technology infrastructure and the number of devices increases incrementally, there is a definite need to increase technology support personnel. At the current time, response time is delayed due to lack of personnel.

The Technical Services Supervisor and the Systems Technician II positions are responsible for all aspects of the district wide-area network and the local area networks at each school sites. This includes but is not limited to installation, monitoring, maintenance, management and repair of all networked connectivity devices such as switches, access points and routers, networked servers, laptops, PDAs, network cabling, telephony switches and telephones. Additionally they are responsible for the configuration and updating of all operational software for these devices. They are also responsible for the installation, hardware/software configuration and maintenance of Internet/spam filtering appliances, network backup devices and networked printers/scanners/copiers.

The two Site Support technicians are responsible for the installation, maintenance troubleshooting and repair of all classroom computer systems, printers, cabling to network jacks and "smart board" devices. They also perform operating system, application and management utility software installation, configuration and maintenance. They occasionally assist the Technical Services Supervisor with network maintenance issues as directed.

The Technical Services Supervisor is additionally responsible for managing the technical services staff duties and assignments. This position additionally performs the administrative duties necessary to manage the department. The supervisor works directly with Ed Services in making assessments and developing specifications for and testing new technologies. The supervisor will also act in an advisory capacity to district departments and schools when assessing new information systems and hardware.

The department has utilized a networked relational database for the last 10 years to input and monitor all work requests in real time. We currently utilize a real-time web browser based work request system. The department utilizes a variety of tools to remotely monitor and manage network assets and workstations to optimize their efficiency given the large number of technology assets within the district.

National School District support staff for technology includes personnel both at the district and school levels.

### **Support Staff Responsibilities:**

#### **Technology Services Supervisor**

- hardware installation and repair
- server maintenance
- telecommunications
- software installation
- setting up new equipment
- connectivity issues
- updating the information system
- system security

**Computer Systems Specialist**

monitor district servers and connection to the county  
troubleshoots computer hardware and software  
monitor district PBX, T-1 and ISDN systems and hardware  
Computer Systems Technician – two positions  
provide site support for computer and network hardware systems

**Database Analyst**

assist with technology staff development  
assist with data management systems  
assist with the district data warehouse  
assist in generating student performance data reports  
Student Information System (GENESIS)  
state database CALPADS

**Site Technology Liaisons**

computer-related problems  
provide technology assistance  
submit site technology work orders  
serve as site contact for district technology staff

**Education Services Department**

state testing Pre-Identification demographics  
update reclassification information for English Learners  
record state mandated information for English Learners  
California English Language Development Test (CELDT) and CAASPP Testing  
supervise the implementation of District Technology Plan

A Computer Systems Technician visits each school one day per week to address any technical issues that the school may be experiencing. The District utilizes an online work request system for timely monitoring of technology support issues by the Technology Services Supervisor or by the technology user at the school site. The system monitors and documents the status and disposition of any work request by any user in the system.

**5B Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the District's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan.**

**Future technology augmentation:**

The district is undertaking several initiatives for classroom technology enhancement:

**Upgrade of Wireless Network:**

The district is planning to initiate a major upgrade of its Wireless LAN and WAN capabilities to its school sites. This upgrade will involve installing the equivalent of a wireless access point in every classroom so that sufficient bandwidth will be available for any technology initiative where high density access is required. At present the district does not have sufficient wireless bandwidth to deploy high density, large quantity wireless computer deployments, given the current wiring and classroom connectivity configurations.

**Upgrade of Remote Access Capabilities:**

At present, the district's current VPN device allowing remote access is outmoded and cannot support large numbers of simultaneous connections from student homes to conduct after-hours learning activities. The district intends to significantly increase those capabilities so that they may offer this capability to any teacher and/or student wanting after-hours access. This also supports the district initiative with SDCOE to create a common Internet portal for all students and teachers to access that goes beyond the current district intranet for providing enhanced learning, collaborative, communication, creative and research opportunities for all students and staff.

**Upgrade of Data Protection:**

The district is planning to replace its current firewall services with greatly enhanced hardware and software to allow many concurrent users protected access to district resources, per CIPA mandated requirements. In order to fulfill the district's curriculum and professional development phases of the plan, the district will be augmenting its current network infrastructure to optimize computing resources in the classroom (1 to 1 computing initiative), Internet bandwidth, network storage and video conferencing capabilities for distance learning and professional development capabilities.

**5C List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b.**

The district has identified the following as short-term infrastructure goals to be achieved within the current 3-year tech planning window:

Goal 1: Increase capacity for wireless connectivity at school sites: to facilitate reduction in student/computer ratios from their present 4-to-1 to a 1-to-1 ratio.				
OBJECTIVES		IMPLEMENTATION PLAN / BENCHMARKS		TIMELINE
<b>Objective 1:</b> Initiate upgrade of Wireless LAN and WAN capabilities to all school sites to include several steps under the implementation plan.		Develop project timeline and installation schedule.		Depending on district and eRate funding availability in 2014 and ensuing years of plan.
		Develop project verification and acceptance criteria with installation vendors.		Depending on district and eRate funding availability in 2014 and ensuing years of plan.
		Develop installation test criteria to validate placement of access points.		Depending on district and eRate funding availability in 2014 and ensuing years of the plan.
		Establish communication plan for troubleshooting and follow up.		Depending on district and eRate funding availability in 2014 and ensuing years of the plan
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Project logs of vendor and Technical Services Supervisor as project(s) commence.	As established in the installation contract.	Technical Services Supervisor will review the project progress on a biweekly basis.	Project logs from the vendor and Technical Services Supervisor.	

**Goal 2:** Review and modify technology acquisition model: The district has expanded its present technology asset base to include over 2500 computer systems (computer/server, monitor, keyboard, mouse and printer) comprising over 8000 individual assets to be managed.

The present model presumes a system lifecycle of 5 years and a phased cycle-out of systems beginning in the third year of their life. The development of this model will be the responsibility of the technology planning committee with input from the Technology Services (MIS) staff.

OBJECTIVES	IMPLEMENTATION PLAN / BENCHMARKS	TIMELINE
<p>Given the current budgetary restrictions on the district, a revision of the acquisition/ deployment of technology assets needs to include the following:</p> <p><b>Objective 1:</b> Establish process and system for piloting new devices, educational software and applications.</p> <p><b>Objective 2:</b> Develop process and timeline for asset replacement and update.</p>	<p>Create test bed for piloting of new devices, educational software and applications.</p> <p>Develop process and timeline for asset replacement and update.</p>	<p>Fall 2014 and continuing thereafter throughout duration of plan.</p> <p>Fall 2014 and continuing thereafter throughout duration of plan.</p>

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
Minutes of meetings	As scheduled	Develop plan and modify as necessary.	Meeting minutes and reviews collected by Ed Services.

**Goal 3: Develop technology model for student home access:** The district has long been desirous of providing secure home access for students to district intranet on a practical and cost-effective basis.

OBJECTIVES		IMPLEMENTATION PLAN / BENCHMARKS		TIMELINE
Perform following tasks allowing home user access to NSD network:  <b>Objective 1:</b> Establish security protocol and cost/purchase necessary hardware for providing secure VPN connection to district network by beginning of 2011- 2012 school year and continuing thereafter.  <b>Objective 2:</b> Create means to securely access NSD intranet using network operating system user accounts by beginning of 2011-2012 school year and continuing thereafter.  <b>Objective 3:</b> Institute trial access for students by beginning of second quarter 2011-2012 school year and continuing thereafter.		Investigate partnerships for subsidized home access cost (SDCOE)  Define carrier(s) for home access Define minimum hardware configuration as appropriate Define access population parameters Create security protocol and policy to define users Input users Create VPN channels for users  Modify routing and firewall configurations as necessary Test remote access policies with user test bed Modify remote access policies as necessary and retest Deploy home access		Beginning Spring 2011 and continuing thereafter throughout duration of plan.  Beginning Spring 2011 and continuing thereafter throughout duration of plan.  Beginning Spring 2011 and continuing thereafter throughout duration of plan.
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Meeting minutes; staff and parent surveys.	As scheduled	Develop plan and modify as necessary.	Meeting minutes, reviews and survey data compiled and reviewed by Ed Services.	

**Goal 4:** Develop technology staffing plan: The current increase in technology assets and the incumbent requirements for service, support and training on these assets has placed a severe burden on the existing district technology staff's capabilities to effectively provide support and follow up in an efficient manner on a timely basis. The information services staff has instituted remote management and monitoring of key technology assets (servers, switches, routers and workstations) but this alone will not be adequate as services increase and their service demands for support of these services follows.

Technology training demands have likewise escalated in concert with increased hardware and software asset deployment. A staffing and services plan is needed to meet the increased demand for training support services.

OBJECTIVES		IMPLEMENTATION PLAN / BENCHMARKS		TIMELINE
<b>Objective 1:</b> Develop staffing plan associated with specific services and servicing thresholds for deployment as specific services come online.		Establish optimal service resource thresholds: School site: hardware and software Network: Hardware and software Remote access: staff and student Define staff deployment procedures Establish training protocols for: Staff Teachers Students Define training conveyance methodology In-person Internet Video Remote access Define training resource requirements: In-person Materials production and procurement Materials management		Spring 2014 and updated thereafter as technology capacity and needs increase across the district
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
Meeting minutes, plan review, timelines.	Annual basis at year-end.	Develop plan and modify as necessary.	Meeting minutes and reviews compiled and reviewed by Ed Services and Cabinet.	

**Goal 5: Provide on-demand video curriculum and training services, webinars, etc. as needed by staff.**

<b>OBJECTIVES</b>				<b>IMPLEMENTATION PLAN / BENCHMARKS</b>				<b>TIMELINE</b>			
<p><b>Objective 1:</b> Video services matrix to be developed by technology liaisons, MIS staff, and Ed Services.</p> <p><b>Objective 2:</b> Investigate various ways to provide online training through a variety means (in district and out-of-district).</p>				Define video service matrix				Fall 2014 and continuing thereafter			
				Define method of production, presentation and storage of video product				Fall 2014 and continuing thereafter			
				Define methods of access:				Fall 2014 and continuing thereafter			
				Internet				Fall 2014 and continuing thereafter			
				Intranet				Fall 2014 and continuing thereafter			
				Remote access				Fall 2014 and continuing thereafter			
				Define hardware and software resource requirements				Fall 2014 and continuing thereafter			
				Investigate service availability in-district and out-of-district.				Fall 2014 and continuing thereafter			
<b>Evaluation Instrument(s):</b>		<b>Schedule for Evaluation</b>		<b>Program Analysis and Modification Process</b>		<b>Data To Be Collected &amp; Position(s) Responsible</b>					
Meeting minutes and review of matrix		Annual basis		Develop matrix and modify as necessary.		Meeting minutes and reviews compiled and reviewed by Ed Services.					

**Goal 6:** Continue to update district “warehouse” that stores all pertinent student personal and performance information, and district financial data to satisfy Federal and State student informational reporting, student assessment data and district budget and financial information. Establish and maintain systems, structures and staffing to ensure the district Student Information System provides accurate information to the state database (CALPADS).

OBJECTIVES	IMPLEMENTATION PLAN / BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Complete development of data warehouse master database by end of 2010-2011 school year.</p>	<p><b>Define</b> data elements and dependencies data structure and flow</p>	<p>Beginning March-July 2011 and continuing thereafter</p>
<p><b>Objective 2:</b> Define and develop database reporting “front-end” user interface by end of 2010-2011 school year.</p>	<p>query structures, dependencies and flow input/output structures, dependencies and flow</p>	<p>Beginning March-July 2011 and continuing thereafter</p>
<p><b>Objective 3:</b> Define and develop report generation tools, reporting formats and specific reports beginning 2010-2011 school year and continuing with establishing new parameters and reports as needed.</p>	<p>interface structures report structures data access policies hardware/software resources and requirements</p>	<p>Beginning March-July 2011 and continuing thereafter</p>
<p><b>Objective 4:</b> Validate data integrity for all elements of data warehouse, user interface and reporting modules.</p>	<p><b>Construct</b> master tables master queries</p>	<p>Beginning March-July 2011 and continuing thereafter</p>
<p><b>Objective 5:</b> Explore the inclusion of additional data sources.</p>	<p>relational tables relational queries</p>	<p>Beginning July 2013 and continuing thereafter</p>
<p><b>Objective 6:</b> Establish systems for accurate training of staff in input of student data into district Student Information System to include ongoing validation and clean up.</p>	<p>relational input/output formats interface formats reporting formats</p>	<p>Beginning July 2013 and continuing thereafter</p>
<p><b>Objective 7:</b> Explore structures and staffing in order to maintain accurate data and uploading to state database on a biweekly basis.</p>	<p><b>Test</b> data integrity data imports/exports data input/output data interfaces data reporting</p> <p><b>Deploy</b> <b>Review for new parameters and update as needed</b> <b>Explore staffing requirements and make recommendations as needed</b></p>	<p>Beginning March-July 2011 and continuing thereafter.</p>

Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
Meeting minutes and reviews	Annually	Develop plan and modify as necessary.	Meeting minutes and reviews compiled and reviewed by Ed Services and Business Services.

**Goal 7:** Update technology standards relative to the following areas:

**1) Equipment:**

- Desktop/server system hardware standards
- Mobile device standards
- District web services/intranet services standards
- Network email hardware standards
- Internet filtering and authentication standards
- Remote access hardware standards
- Voice services hardware standards

**2) Software:**

- Desktop/server system operating system standards
- Desktop system productivity, anti-virus, utility and Internet browser software standards
- Network email software standards
- Internet filtering and authentication standards
- Remote access hardware standards
- Voice services software standards
- Educational needs and applications

**3) Services and upgrades:**

- Desktop/server system hardware replacement cycle standards
- Desktop/server system operating system upgrade and/or replacement cycle standards
- Desktop system productivity, anti-virus, utility and Internet browser upgrade/replacement standards
- Network equipment upgrade/replacement cycle standards
- Network storage standards for archiving student work
- Voice services equipment upgrade/replacement standards
- Voice services software upgrade/replacement standards
- District warranty/field services equipment standards

OBJECTIVES		IMPLEMENTATION PLAN / BENCHMARKS		TIMELINE
<p><b>Objective 1:</b> Create standards folio that can be easily modified, referenced and reviewed by district administrators beginning of 2011-2012 school year and continuing thereafter.</p>		<p>Develop standards based on current and anticipated technology platforms for review and modification by technology liaisons, district technology plan update committee, MIS, and Ed Services.</p>		<p>Beginning July 2012 and continuing thereafter.</p>
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible	
<p>Meeting minutes and reviews.</p>	<p>Annually</p>	<p>Develop plan and modify as necessary.</p>	<p>Meeting minutes and reviews compiled and reviewed by Ed Services.</p>	

**5D Describe the process that will be used to monitor Section 5b and the annual benchmarks and timeline of activities including roles and responsibilities.**

Benchmark / Action Step	Person Responsible	Dates
<p><b>Increase capacity for wireless connectivity</b>            Develop project timeline and installation schedule            Develop project verification and acceptance criteria with installation vendors            Develop installation test criteria to validate placement of access points            Establish communication plan for troubleshooting and follow up</p>	Ed Services Technology Services Supervisor	July 2011-Dec. 2011 and annually thereafter
<p><b>Network security and authentication model</b>            Define security identity management parameters            Define security renewal periods            Define security monitoring parameters            Write security policy            Define hardware/software resource needs and purchasing requirements            Develop policy deployment timeline</p>	Ed Services Technology Services Supervisor	July 2011-Dec. 2011 and annually thereafter
<p><b>Review and revamp technology acquisition model</b>            Create test bed and process for piloting new hardware and software            Create distribution matrix for replacement and upgrades            Define applications to be deployed            Test applications for performance and data integrity            Select optimal platform for mobile device deployment            Select optimal workstation and mobile device configuration parameters            Select new purchase workstations and mobile devices</p>	Ed Services Technology Services Supervisor	July 2011-- June 2012 and annually thereafter
<p><b>Develop standards for file retention and backup systems</b>            Install SAN and NAS hardware            Define SAN storage configuration for schools and District Office            Define SAN and NAS management requirements for storage and data archiving            Define security policies for storage and data archiving            Configure SAN and NAS            Define SAN and NAS performance test parameters            Test SAN and NAS performance            Adjust performance parameters            Re-test SAN and NAS performance            Develop data migration plan to SAN and NAS            Perform data migration to SAN and NAS            Deploy SAN and NAS on active basis            Monitor performance</p>	Ed Services Technology Services Supervisor	July 2011-- June 2012 and annually thereafter
<p><b>Develop technology model for student home access</b>            Investigate partnerships for subsidized home access cost (SDCOE)            Define carrier(s) for home access            Define minimum hardware configuration as appropriate            Define access population parameters            Create security protocol and policy to define users            Input users            Create VPN channels for users            Modify routing and firewall configurations as necessary            Test remote access policies with user test bed            Modify remote access policies as necessary and re-test            Deploy home access as best possible</p>	Ed Services Technology Services Supervisor	July 2012-- June 2013 and annually thereafter

<p><b>Develop technology staffing plan</b>  Establish optimal service resource thresholds:  Define staff deployment procedures  Establish training protocols for staff, teachers and students  Define training conveyance methodology  Define training resource requirements  Materials management</p>	Cabinet Ed Services Technology Services Supervisor	July 2012- June 2013 and annually thereafter
<p><b>Provide on-demand video curriculum and training services</b>  Define video service matrix  Define method of production, presentation and storage of video product  Define methods of access  Define hardware and software resource requirements</p>	Ed Services Technology Services Supervisor	July 2012- June 2013 and annually thereafter
<p><b>Provide on-demand video curriculum and training services</b>  Define data elements and dependencies  Define data structure and flow  Define query structures, dependencies and flow  Define input/output structures, dependencies and flow  Define interface structures  Define report structures  Define data access policies  Define hardware/software resources and requirements  Construct master tables  Construct master queries  Construct relational tables  Construct relational queries  Construct relational input/output formats  Construct interface formats  Construct reporting formats  Test data integrity  Test data imports/exports  Test data input/output  Test data interfaces  Test data reporting</p>	Ed Services Technology Services Supervisor	July 2012- June 2013 and annually thereafter
<p><b>Modify data warehouse</b>  Develop standards based on current and anticipated technology platforms for review and modification</p>	Ed Services Technology Services Supervisor	March 2011-July 2011 and annually thereafter
<p><b>Update technology standards</b>  Develop standards based on current and anticipated technology platforms for review and modification</p>	Ed Services Technology Services Supervisor	July 2011- June 2012 and annually thereafter

## 6. FUNDING AND BUDGET COMPONENT

### 6A List of established and potential funding sources

The National School District is an active participant in the federal eRate program. The upgrade in infrastructure that the district has invested in has been a direct result of the 90% eRate funding level that the district receives. A significant portion of the General Fund allocation is also used to support technology each year. Schools have also joined in support of the plan by using their State funds and Federal categorical funds for this purpose as well. The superintendent and the Governing Board have made a significant investment in the support of technology over the years. It will remain a high profile item in the District budget for many years to come. The district is committed to participating in the eRate program and has identified funds that have been set aside in the budget to meet its required match of funding as required by eRate regulations.

#### Funding Alternatives

The technology plan update committee, technology liaisons, principals, and Ed Services staff recognize that the requirements for the district to meet the goals stated in this plan are beyond normal budgetary capabilities. Therefore, the district must identify sources of funding outside of normal channels. Fortunately, there are a number of sources available to assist the District in acquiring technology. The district further recognizes that we continue to have challenging budgetary times that require creative approaches in identifying funding sources that will assist us in accomplishing the goals of this plan. As LCFF funding and the LCAP are put in plus (as the new funding formula and plan), the process of meeting the requirements outlined in this plan may become progressively feasible to implement over time. The district, under the leadership of Ed Services Department, will aggressively identify potential alternative funding sources to support the implementation of this plan, including but not limited to, the following sources:

Federal eRate Discounts  
 Title I  
 Title III

Competitive grants  
 Before and After School Funding  
 Vendor Assistance

### 6B Estimate annual implementation costs for the term of the plan

The technology planning committee has identified a set of projects that will allow the district to meet the goals and objectives of this plan. The budget estimates in this section are based on experience with similar efforts. More detailed estimates, based on clearly defined requirements, are necessary to create requests for services. This information is presented to reflect the scale of the financial commitment required over several years to implement the projects described.

#### Classroom Computers – Replacement Policy

The integration of networks into the classrooms requires that computers exist at the client end for students. The goal is to have 1 student for every Internet computer. The cost consideration of all classroom computers is included in the follow budget.

	2014-15	2015-16	2016-17	2017-18
Computer Replacement	\$100,000	\$100,000	\$100,000	\$100,000

This summary includes the projected cost of purchasing computers at each school site to bring them towards a 1 to 1 ratio and recurring costs including depreciation and replacement of obsolete equipment, which should be 1/5 of the district's computers each year.

### Support Services

Support services are critical for the successful use of technology. The district will continue to support a system that uses site technology specialists at the school-site level to provide on-site technical support. This project will continue to implement support services as needed throughout the district. The district should budget about \$120,000 a year, beyond the salaries of an information technology department, toward support services for school-level technology. This computes to \$8,750 dollars per month, per school/department.

	2014-15	2015-16	2016-17	2017-2018
Hardware/Software support (new personnel +1 every other year)	\$60,000	\$60,000	\$120,000	\$120,000
District and Site Support Personnel (hardware/software)	\$376,500	\$376,500	\$376,500	\$376,500
Annual Maintenance Agreements/Telecommunications	\$39,500	\$39,500	\$39,500	\$39,500

### Tools for Curriculum Integration

Teachers must have access to educational tools that directly align themselves to the California state common core content standards. Appropriate software for the integration of technology into the curriculum must be identified and procured by the district. The software should be grade-level appropriate and support standards-based instruction. Fortunately, many of the tools needed exist within the district, will be included with the purchase of new machines, or are available as freeware/shareware. For example, a web browser is a major component needed for the integration of the Internet into the school environment. Both of the major browser companies (Microsoft and Netscape) provide their browsers free of charge. This project will identify, procure, and install such tools. The district will budget the allocations indicated below per year for costs related to providing access in the classroom.

	2014-15	2015-16	2016-17	2017-2018
New Software Requirements	\$68,000	\$113,000	\$75,000	\$95,000
Ongoing Software Requirements	\$37,000	\$37,000	\$37,000	\$37,000
Telecommunications	\$40,000	\$40,000	\$140,000	\$60,000
Develop Standards-based Tech. Lessons	\$25,000	\$25,000	\$25,000	\$25,000

### Data Management System – OARS and Data Warehouse

	2014-15	2015-16	2016-17	2017-18
OARS	\$25,000	\$25,000	\$25,000	\$25,000
Data Warehouse	\$60,000	\$60,000	\$60,000	\$60,000

## Staff Development

Training staff in the use of technology is critical for its successful integration into the curriculum. The following project supports the staff development needs stated in this plan. This includes funding for substitutes and release time for teachers.

	2014-15	2015-16	2016-17	2018-19
Professional Development	\$20,000	\$20,000	\$20,000	\$20,000

## Innovative Projects

Establishing model classrooms in the district where there is a 1 to 1 student to computer ratio will require money to implement and where innovative and new technologies are being used is imperative to the ongoing implementation of the common core standards. The table below summarizes the anticipated costs tied to this effort.

	2014-15	2015-16	2016-17	2017-18
1 to 1 Computing/Mobile Devices/Pilot Projects	\$30,000	\$30,000	\$30,000	\$30,000

This money will be used to outfit one school per year with a rolling lab cart with netbooks per class so that assessments can be taken online and each student will have a netbook.

## Summary of Expenditures Over the Duration of the Plan

In addition, as hard replacement becomes a necessity, an estimated cost replacement for one school a year is provided below as well. This has not been budgeted but it is necessary to include such future expenditure requirements for out-year budgetary planning purposes.

	2014-15	2015-16	2016-17	2017-18
Hardware Replacement (switches, access points, server hardware) Per school/Per year (10 schools total)	\$350,000	\$350,000	\$350,000	\$350,000
<b>TOTAL COSTS</b> (for sites and district) (not including hardware replacement indicated above)	\$871,000	\$926,000	\$988,000	\$928,000

## **6C Describe the district's replacement policy for obsolete equipment**

National School District has a policy to replace computer equipment as it becomes obsolete and/or non-operational. Computers must have the specifications necessary to run multimedia software and the speed needed to swiftly access information.

The district's obsolete computer equipment replacement procedures are:

All non-standard computer equipment are replaced when they no longer can adequately run district software or become non-operational.

Equipment that is obsolete or non-functional will be replaced in a cooperative effort between the school and the district.

Obsolete equipment is sent to the district's warehouse through coordination with the Purchasing Supervisor.

The district will explore new devices as they come on line as a means to provide for a variety of quality equipment at better pricing.

Replacement of K-6 classroom workstations is a shared responsibility between the district and school sites.

Replacement of student workstations in the school library will be replaced in a cooperative effort between the district and school sites.

Replacement of library media specialist workstations is the responsibility of the district.

Replacement of office workstations is the responsibility of the district.

Replacement of special education classroom workstations is the responsibility of the district.

Replacement of lab computers is the sole responsibility of the school site.

Replacement of preschool computers is the responsibility of the preschool program.

Single Plans for Student Achievement outline utilizing categorical funds for the replacement and upgrade of computers at each site. Contingent on state and federal site allocations and school priorities, sites support the ultimate goal/vision of a 1 to 1 ratio.

## **6D Describe the process that will be used to monitor educational technology funding, implementation costs and new funding opportunities and to adjust budgets as necessary**

The district technology plan update committee, technology liaisons, MIS, and Ed Services will be responsible for monitoring and evaluating the district technology plan. These entities are responsible for tasks associated with achieving the determined goals and objectives along with identified persons as outlined in each goal area of the plan. These stakeholders address staff development, standards and assessment, software review and testing, policies and procedures, hardware standards review and the technology curriculum development.

The evaluation of the technology plan will answer the following questions:

How has the use of technology and technology resources improved student learning in the National School District?

Has the usage of technology resources increased in classrooms during the life of this plan?

Has the sophistication of use changed over the three-year life of the Technology Use Plan?

Has the District closed the "digital divide" that has been identified as a problem in the community of National City?

Are technology standards for students and staff being used to make decisions relating to classroom instruction and professional development opportunities?

Are we using technology to improve learning opportunities for students and the work environment for staff?

Have we broadened the scope of technological tools that are used on a regular basis by students?

The technology plan update committee, technology liaisons, and MIS under the direction of Ed Services will work to design a comprehensive evaluation procedure and protocol that will be used to assess the effectiveness of the

technology plan throughout the lifespan of the plan. This process will include both quantitative and qualitative research methodologies to ensure a balanced and accurate evaluation takes place. The data will be analyzed and built into a year-end evaluation report that will be shared with Cabinet, the technology plan update committee, and technology liaisons in the winter each year. The results will be presented to the Governing Board at a spring meeting.

### Evaluation Timeline

2014-2015	July - October	Design evaluation process and instruments
	October	Cabinet reviews and approves evaluation process and design
	August – October	Gather Information
	November-December	Analyze data and write report
	January-February	Report to Interest Groups
	April-May	Report to Governing Board
2015-2016 & Thereafter	August – October	Gather Information
	October-November	Analyze data and write report
	January-February	Report of Interest Groups
	April-May	Report to Governing Board
	Throughout Process	Use data from evaluation cycles to update Tech Use Plan

### How Information from Feedback Loops Will Be Used

At the end of each information gathering process in the timeline above, under the leadership of the Ed Services department, stakeholders identified previously in the plan will meet to analyze the data and write a report to district cabinet and the Governing Board. Each section of the TUP, from curriculum to budget will be reviewed and appropriate modifications to the plan will be implemented. If adequate progress and success is not indicated, the committee will recommend steps such as modification of the plan, revision of goals, and/or infusion of additional resources. If certain aspects of the plan are moving more rapidly, the committee may recommend stepping up the timeline for goals and objectives. Particular attention will be given to focus groups and satisfaction surveys completed by staff. Student achievement data will also receive particular attention. District benchmarks will be the primary indicators of success in technology implementation.

Ed Services is ultimately responsible for making sure that this evaluation process takes place each year. The resources and expertise of the technology plan update committee, technology liaisons, MIS staff, and department employees and consultants to complete this task.

## 7. MONITORING AND EVALUATION COMPONENT CRITERIA

### 7A Process for evaluating the plan’s overall progress and impact on teaching and learning

#### Tools and Methodology to Monitor District Technology Goals

Ed Services recognizes the need for a continual assessment of technology use within the district. This section describes the tools and procedures that will be used in future planning cycles. The establishment of a “feedback loop” that informs district decision-making and that is an on-going and integral part of the district planning process is critical if this plan is to be successful.

ACTIVITY	TOOLS	METHODS	PERSON(S) RESPONSIBLE	TIMELINE
Student Computer Knowledge and Skills	Student grade summaries on technology- based projects NETS Performance Indicators for Technology Literate Students. Report cards	Review of progress of students towards expectations. Revise plan as needed.	Technology Plan Update Committee Ed Services Technology liaisons	Annually
Student Academic Achievement in targeted content areas	State assessment results District assessment results Student performance on Formative authentic assessment project rubrics	Review of progress of students towards expectations. Revise plan as needed.	Technology Plan Update Committee Ed Services Technology liaisons	Annually
Staff Technology Proficiency	Performance on formative authentic assessment project rubrics Summary of Professional Growth hours in Technology NETS Performance Indicators for Teachers and Administrators	Review of progress of staff towards expectations. Revise plan as needed.	Technology Plan Update Committee Ed Services Technology liaisons	Annually
Staff Technology Integration	Technology Use Survey and Report Informal classroom observation forms Technology-based lesson plans	Review unit / lesson plans and observation records for progress of staff towards expectations. Revise plan as needed.	Technology Plan Update Committee Ed Services Technology liaisons	Annually
Technology Acquisition and Infrastructure	District inventory and usage statistics	Review of district inventory and usage.	Technology Plan Update Committee Ed Services Technology liaisons	Annually
Technology Support	Annual customer service questionnaires Troubleshooting log Online work request system Online professional development registration system	Review customer surveys & work request system to determine level & quality of support to school & district users	Technology Plan Update Committee Ed Services Technology liaisons	Annually
Model Technology Projects	Survey teachers and students to determine perceived impact of project on learning to include library media skills Review student performance data	Review surveys and student performance data and compare to like classrooms without technology intervention	Technology Plan Update Committee Ed Services Technology liaisons	Annually

## Tools and Methodology to Monitor Site Technology Goals

The principal will coordinate the site technology plan and will be responsible for the management of all activities described in the programs for students and staff. Ed Services will make an annual report to the Governing Board.

### 7B Schedule for evaluating the effect of plan implementation

Activities will be monitored as follows:

ACTIVITY	TOOLS	METHODS	PERSON(S) RESPONSIBLE	TIMELINE
Student Computer Knowledge and Skills	Student grade summaries on technology- based projects NETS Performance Indicators for Technology Literate Students	Review of progress of students towards expectations Revise plan as needed	Principals Technology Liaisons Ed Services assistance	Annually
Student Academic Achievement in targeted content areas	State assessment results District assessment results Student performance on formative authentic assessment project rubrics	Review of progress of students towards expectations Revise plan as needed	Principals Technology Liaisons Ed Services assistance	Annually
Staff Technology Proficiency	NETS Performance Indicators for Teachers and Administrators Performance on formative authentic assessment project rubrics. Summary of Professional Growth hours in Technology	Review of progress of staff towards expectations Revise plan as needed	Principals Technology Liaisons Ed Services assistance	Annually
Staff Technology Integration	Technology Use Survey and Report Informal classroom observation forms Technology-based lesson plans	Review unit / lesson plans and observation records for progress of staff towards expectations Revise plan as needed	Principals Technology Liaisons Ed Services assistance	Annually
Technology Infrastructure and Support	Troubleshooting and work request system logs Customer service surveys to include survey of library support	Review of logs and surveys of level and quality of support Revise plan as needed	Principals Technology Liaisons Ed Services assistance	Annually
Partnership Involvement	Attendance Records Meeting Minutes Agendas	Review levels of partnership involvement Adjust plan as needed	Principals Ed Services	Annually

**7C Describe the process and frequency of communicating evaluation results to technology plan stakeholders**

Annual updates for each year of the plan on progress towards meeting technology goals will be made to the district leadership meeting each year. Included in the district Leadership meetings are each director of departments in the district, Cabinet, and all principals. Ed Services will make an annual report to the Governing Board and to parent stakeholder groups including DAC and DELAC.

## **8. EFFECTIVE COLLABORATION AND COMMUNICATION STRATEGIES WITH PARENTS, ADULT LITERACY PROVIDERS, AND COMMUNITY MEMBERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION**

This section of the plan explains how the plan will be implemented in collaboration with parents, adult literacy providers and agencies, and community members. Planning will include consideration of collaborative strategies and other funding resources to maximize the use of technology with all stakeholders.

There are several agencies and providers of adult literacy programs within the borders of the National School District. Adult literacy providers include the Sweetwater Adult School and the National City Public Library through their Project READ program. Working with these agencies will ensure that adult literacy issues are addressed.

There is a long history of collaboration between our two adult literacy providers and National School District. For many years we have supported the library's Project READ in the following ways:

Participating in annual fund-raising and publicity events (i.e., Kimball Park 4<sup>th</sup> of July Event).

Jointly sponsoring Reading Is Fundamental (RIF) book give—a ways twice a year.

Supporting a library-based family literacy project “Families for Literacy” which worked with hundreds of community families with pre-school children.

Referring parents to Project READ to work with volunteer tutors.

Public library after school services.

National School District has collaborated with Sweetwater Adult School in these ways:

CBET Adult ESL Classes

Providing training facilities for NSD staff development activities

Sweetwater Adult School has a relatively new major adult education facility here in National City, and we plan to continue to work with them to help encourage our parents to take advantage of the educational opportunities within our community. The new building includes impressive new technology training resources, and it is important that we collaborate to maximize the use of these resources to meet our common goals.

There are two additional agencies with educational and community resources in National City. These are the San Diego County Office of Education and Southwestern College whose facilities in downtown National City provide a myriad of training and educational possibilities for our staff, students, and parents. Ed Services will continue to work with both agencies to develop mutually beneficial partnerships.

The Family Resource Centers (FRC) in National City also provide assistance to families and community members. FRCs are a family friendly community based collaborative with the capacity to provide on-site access to comprehensive prevention and treatment services. Each FRC provides social, educational, health, and supportive services for all families. FRCs serve as vehicles for engaging local residents and community organizations. Input is welcomed in the identification and resolution of pressing issues related to raising healthy children. FRCs actively seek and promote leadership of community members through partnership with various community agencies. Together, these partnerships advocate, lead, and provide perspective on behalf of their communities. Each is unique in membership demographic and may include parents, church leaders, business and other professionals. FRCs help communicate the vision and goals of the district.

National School District has collaborated with the FRCs in National City to assist as they provide services to the students and families in our district. These services include:

- Counseling
- Parenting Education
- Case Management/Family Advocacy
- Domestic Violence Prevention & Treatment
- Community Resources and Referrals
- Multidisciplinary Team
- Family Health & Wellness
- Family Economics & Self-Sufficiency
- Child Development Activities
- Emergency Assistance
- Family Literacy and Education (to include computer classes at school sites)

The Before and After School program also provide opportunities for students and families to access and learn how to use technology for several purposes. These include using technology for intervention, enrichment, to build skills and expertise, and proficiency. The District will work with the agencies in charge of programs beyond the school day to identify, develop and deliver technology programs for students and their families.

District and school site parent councils, committees, and parent organizations provide forums for parents and community members to provide input into the educational program of their children. It is imperative that the district determine the ways and means to provide technological support and community-based computing to families through community partnerships like the National City Public Library, which houses a large computer lab, Cox and C2K to provide inexpensive technology and Internet to families, and to the FRC to provide computer classes to help parents learn how to use technology effectively as well as diligently monitor the safe use of technology by their children.

Developing family-friendly communication means that staff needs to communicate with families often and in a variety of ways; use culturally appropriate ways to relate to the diversity of families represented in our schools; choose communication strategies that encourage two-way interactions; and, reach out to communicate with families who rarely attend school activities. Good communication between home and school increases trust (Adams and Christenson, 2000) and encourages realistic expectations for children by keeping parents and teachers “on the same page” (Drake, 2000; James, Jurich, & Estes, 2001). To be effective, home-school communication needs to be “consistent, two-way and meaningful” (Massachusetts Department of Education, 2000), using a variety of forms, both formal and informal, conveying both bad news and good, on a regular basis (Whitaker & Fiore, 2001; Power, 1999).

A variety of technology tools may be utilized to effectively and efficiently communicate with families. Many schools have developed and maintain websites that include a wealth of information for families. According to research, some districts have developed Internet-based, home-school communication programs where families can access student and school information such as daily grade reports, attendance reports, individual class web pages, class newsletters and reports, and school information and calendars (Imelli & Purvis, 2000; Nixon, 2002). Including a special link to information of interest to parents (family center hours, family involvement policy, upcoming workshops, volunteer opportunities, homework hotline, etc.) is a family-friendly way to make information readily available.

To support and strengthen the National City community the district needs to consistently work at developing and maintaining a successful city/school partnership that integrates, leverages and improves access to resources; resulting in improved student achievement, positive development for youth, enhanced public safety and neighborhood revitalization. To that end, it is important to reach out consistently to agencies in the community and to communicate with them the happenings of the district in an effort to be collegial and collaborative.

The technology plan update committee, technology liaisons and Ed Services will work together to augment the communication element of the district’s strategic plan to align it to the communication elements of the technology plan.

**8A List of clear goals, measurable objectives, and an implementation plan to use technology to improve two-way communication between home and school.**

Goal 9: Use technology to provide improved communication between home and school and all stakeholders.			
OBJECTIVES		IMPLEMENTATION PLAN /BENCHMARKS	TIMELINE
<p><b>Objective 1:</b> Teachers will make effective use of classroom websites for communication of classroom and school goals and objectives, as well as, classroom and homework assignments.</p> <p><b>Objective 2:</b> Teachers and administrators will use technology as tool to communicate with parents through both written form using word processing applications and also through email.</p> <p><b>Objective 3:</b> Teachers will effectively utilize communication tools to enhance home/school communication efforts (to include but not limited to Peachjar, RED, IDAP, school marquee, twitter, facebook, email, text, newsletters).</p> <p><b>Objective 4:</b> Develop methods to support parents who do not have the skills to use them.</p> <p><b>Objective 5:</b> Investigate ways and means to provide technological support to families for increased access and communication.</p> <p><b>Objective 6:</b> Augment district strategic plan relevant to district communication with stakeholders and community members using a variety of technology methodologies.</p>		<p>Utilize Google Applications for Education.</p> <p>Develop access plan to ensure the availability of technology to support objectives in accordance with priority of tasks.</p> <p>Conduct yearly user/staff surveys to identify strengths and weaknesses of implementation.</p> <p>Assess need for additional professional development, hardware or software.</p> <p>Develop outreach plan for increasing parent access to technology, including parent training and special computer access on school site.</p> <p>Investigate partnerships with community agencies to provide the technological support needed to families in our district.</p> <p>Develop parameters to augment district strategic plan relevant to communication with stakeholders.</p>	<p>2014-2015, 2016, 2017, 2018</p> <p>Spring 2014 with annual reassessment each year</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>Spring 2014, 2015, 2016, 2017, 2018</p> <p>*Begin Fall 2014 and update thereafter</p> <p>*Spring 2014 and investigating sources annually thereafter</p> <p>*Begin Fall 2014 and continue to update thereafter as needed</p>
Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Data To Be Collected & Position(s) Responsible
<p>Surveys and sign-in sheets and evaluations from events and sessions.</p> <p>Parent and stakeholder surveys regarding communication effectiveness.</p>	<p>June of each year</p>	<p>Technology committee will analyze progress and make changes with stakeholders' assistance.</p>	<p>Teachers and site principals will evaluate site survey information to determine site goals for the new year.</p> <p>Principals will synthesize data collected from informal walkthroughs of classrooms.</p> <p>Ed Services will collect and synthesize data on parent communication, parent technology surveys, and community agency feedback on an annual basis.</p>

**8B Action steps to use technology to improve two-way communication between home and school.**

Action Step	Person(s) Responsible	Annual Dates
<b>Use technology to provide improved communication between home and school, all stakeholders, and find ways to minimize impact of the “digital divide” on families in the National School District.</b>		
Expand use of district website to promote home/school communication	Ed Services	October
Educate parents as to how computers will be used in the district	Technology Liaisons	February
Demonstrate Virtual Education and how parents can use it	Technology Committee	June
Educate parents on how to make a smart computer purchase, and include a variety of resources (to include Cox Connect2Compete events). Many parents will see the value technology has to offer their children and choose to spend their limited dollars to obtain a computer	Principals Teachers	
Utilize each school’s collection of computers, computer labs, carts as well as those located in school libraries, to support training for both students and parents after hours		
Develop a board policy on parent use of technology with devices that can be sent home		
Explore low cost options for providing Internet access for parents		
Continue partnership with National City Public Library to increase parent and student awareness about their services (use of eBooks)		
Implement Internet version and/or access to software through the district website		

## **9. EFFECTIVE, RESEARCH BASED-METHODS, STRATEGIES, AND CRITERIA**

### **9A Summarize the relevant research and describe how it supports the plan’s curricular and professional development goals**

#### **District’s curricular goals that are supported by this tech plan**

Clayton M. Christensen in Disrupting Class (2008), includes a description of “student-centric learning.” This model includes a technology platform in which technology is used for production, not consumption. His work also advocates disruptively deploying computers and providing online learning opportunities such as “Apex.” Online learning opportunities are part of the district’s plan.

In the Framework for 21<sup>st</sup> Century Learning (2009), the following major concepts are identified: Learning and Innovation Skills, Information, Media and Technology Skills, Core Subjects and 21<sup>st</sup> Century Themes, and Life and Career Skills. The District has adopted this framework as a core foundational resource.

Milton Chen in Education Nation (2010) references the need for students to know how to find information, how to assess the quality of information and how to creatively and effectively use information to accomplish a goal.

In the 2009 Summary of Research on the Effectiveness of K-12 Online Learning, Susan Patrick and Allison Powell reviewed the research literature:

- Students who took part or all of their class online performed better, on average, than those taking the same course through traditional face-to-face instruction.
- The “hybrid model” combining online and face-to-face elements was more effective than purely online instruction, when compared with purely face-to-face instruction.

#### **Technology to improve teaching and learning by supporting the district curricular goals**

The District has adopted the research-based ISTE National Educational Technology Standards for Students

- Creativity and Innovation
- Communication and Collaboration
- Research and Information Fluency
- Critical Thinking, Problem Solving, and Decision Making
- Digital Citizenship
- Technology Operations and Concepts

#### **Technology skills and information literacy skills needed to succeed in the classroom and workplace**

James Canton in The Extreme Future (2006), references the following key concepts:

- Transformation of the global economy based upon the convergence of free trade, technology, and democracy, driving new jobs, new markets, globalization
- Innovation trends that will shape the future of globalization: broadband Internet connections, wireless cell-phone networks, collaborative virtual workspaces
- The innovation future

## **Information technology in the classroom**

In the Report of the U.S. Web-based Education Commission (online) (2001), Internet can be used to transform learning in new and powerful ways.

## **Internet safety**

Youth Safety on a Living Internet (2010), propose the following recommendations based on literature:

- Keep up with the youth-risk and social-media research
- Avoid scare tactics and promote social norms approach to risk prevention
- Promote digital citizenship
- Promote instruction in digital media literacy and computer security

## **Professional development opportunities**

The District is using The ISTE National Educational Technology Standards for Teachers, which is based upon the research ISTE has done to determine teacher professional development priorities. In addition, the district has also adapted those standards for other support personnel and these are included in this plan. Staff development priorities identified in ISTE standards are:

- Facilitate and inspire student learning and creativity
- Design and develop digital-age learning experiences and assessments
- Model digital-age work and learning
- Promote and model digital citizenship and responsibility
- Engage in professional growth and leadership

In The State of Online Learning in California: A Look at Current K-12 Policies and Practices (2006), it advocates the following professional development practices:

- Learning the technology
- Developing good online pedagogy

Our technology committee has concluded that for technology to make a lasting impact and to ensure technology is embedded throughout the common core standards instructional model, staff must use a variety of teaching and learning approaches as well as a variety of technology platforms and mediums in their classrooms. Time and again, the research comes back to the teacher as the most influential component of a successful technology program. Staff must be given the time and resources to attend professional development opportunities on utilizing technology in the classroom and workplace. Our plan addresses these issues in several place.

**9B Describe the district’s plans to use technology to extend or supplement the District’s curriculum with rigorous academic courses and curricula, including distance-learning technologies**

The district is in the process of developing a plan for the expansion of rigorous academic course offerings and distance-learning technologies through contracts with online course providers such as Apex, PD 360, and through collaboration with the San Diego County Office of Education. The district will examine and evaluate the quality of coursework offered by multiple other online providers. Additionally, the district plans to expand student access and utilization of technology through a variety of platforms (i.e., flipped classroom, access to software through NSD website, etc.).

Instructionally, through professional development, acquisition of electronic instructional materials and expanded access to online/Internet resources, the district expects to extend and supplement the existing instructional resources available to students, teachers, parents, and staff.

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**11. APPENDICES**

## **APPENDIX 11A**

### **National Educational Technology Standards (NETS) for Students Technology Foundation Standards for All Students**

The technology foundation standards for students are divided into six broad categories. Standards within each category are to be introduced, reinforced, and mastered by students. These categories provide a framework for linking performance indicators within the Profiles for Technology Literate Students to the standards. Teachers can use these standards and profiles as guidelines for planning technology-based activities in which students achieve success in learning, communication, and life skills.

#### **Technology Foundation Standards for Students**

##### Basic operations and concepts

Students demonstrate a sound understanding of the nature and operation of technology systems.

Students are proficient in the use of technology.

##### Social, ethical, and human issues

Students understand the ethical, cultural, and societal issues related to technology.

Students practice responsible use of technology systems, information, and software.

Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

##### Technology productivity tools

Students use technology tools to enhance learning, increase productivity, and promote creativity.

Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

##### Technology communications tools

Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.

Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

##### Technology research tools

Students use technology to locate, evaluate, and collect information from a variety of sources.

Students use technology tools to process data and report results.

Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

##### Technology problem-solving and decision-making tools

Students use technology resources for solving problems and making informed decisions.

Students employ technology in the development of strategies for solving problems in the real world.

## **APPENDIX 11B**

### **NETS Performance Indicators NETS for Students Profiles for Technology Literate Students:**

A major component of the NETS Project is the development of a general set of profiles describing technology-literate students at key developmental points in their pre-college education. These profiles reflect the underlying assumption that all students should have the opportunity to develop technology skills that support learning, personal productivity, decision making, and daily life. These profiles and associated standards provide a framework for preparing students to be lifelong learners who make informed decisions about the role of technology in their lives.

### **GRADES PRE K - 2 Performance Indicators:**

All students should have opportunities to demonstrate the following performances.

Prior to completion of Grade 2 students will:

Use input devices (e.g., mouse, keyboard, remote control) and output devices (e.g., monitor, printer) to successfully operate computers, VCRs, audiotapes, and other technologies. (1)

Use a variety of media and technology resources for directed and independent learning activities. (1, 3)

Communicate about technology using developmentally appropriate and accurate terminology. (1)

Use developmentally appropriate multimedia resources (e.g., interactive books, educational software, elementary multimedia encyclopedias) to support learning. (1)

Work cooperatively and collaboratively with peers, family members, and others when using technology in the classroom. (2)

Demonstrate positive social and ethical behaviors when using technology. (2)

Practice responsible use of technology systems and software. (2)

Create developmentally appropriate multimedia products with support from teachers, family members, or student partners. (3)

Use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories. (3, 4, 5, 6)

Gather information and communicate with others using telecommunications, with support from teachers, family members, or student partners. (4)

Numbers in parentheses following each performance indicator refer to the standards category to which the performance is linked. The categories are:

Basic operations and concepts

Social, ethical, and human issues

Technology productivity tools

Technology communications tools

Technology research tools

Technology problem-solving and decision-making tools

### **GRADES 3 – 5 Performance Indicators:**

All students should have opportunities to demonstrate the following performances.

Prior to completion of Grade 5 students will:

Use keyboards and other common input and output devices (including adaptive devices when necessary) efficiently and effectively. (1)

Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide. (1, 2)

Discuss basic issues related to responsible use of technology and information and describe personal consequences of inappropriate use. (2)

Use general purpose productivity tools and peripherals to support personal productivity, remediate skill deficits, and facilitate learning throughout the curriculum. (3)

Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom. (3, 4)

Use telecommunications efficiently and effectively to access remote information, communicate with others in support of direct and independent learning, and pursue personal interests. (4)

Use telecommunications and online resources (e.g., email, online discussions, Web environments) to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom. (4, 5)

Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities. (5, 6)

Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems. (5, 6)

Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources. (6)

Numbers in parentheses following each performance indicator refer to the standards category to which the performance is linked. The categories are:

Basic operations and concepts

Social, ethical, and human issues

Technology productivity tools

Technology communications tools

Technology research tools

Technology problem-solving and decision-making tools

## **GRADES 6 – 8 Performance Indicators:**

All students should have opportunities to demonstrate the following performances.

Prior to completion of Grade 8 students will:

Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. (1)

Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society. (2)

Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. (2)

Use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research. (3, 5)

Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum. (3, 6)

Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom. (4, 5, 6)

Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom. (4, 5)

Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. (5, 6)

Demonstrate an understanding of concepts underlying hardware, software, and connectivity and of practical applications to learning and problem solving. (1, 6)

Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems. (2, 5, 6)

Numbers in parentheses following each performance indicator refer to the standards category to which the performance is linked. The categories are:

Basic operations and concepts

Social, ethical, and human issues

Technology productivity tools

Technology communications tools

Technology research tools

Technology problem-solving and decision-making tools

## APPENDIX 11C

### Criteria for EETT Technology Plans

*A technology plan needs to “Adequately Address” each of the following criteria:*

1. PLAN DURATION CRITERION	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. The plan should guide the district’s use of education technology for the next three to five years. (For a new plan, can include technology plan development in the first year)	2	The technology plan describes the LEA use of education technology for the next three to five years. (For new plan, description of technology plan development in the first year is acceptable). The plan must include a specific start and end date (7/1/14 to 6/30/18)	The plan is less than three years or more than five years in length.
2. STAKEHOLDERS CRITERION Corresponding EETT Requirement(s): 7 and 11 (Appendix D).			
b. Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.	3	The planning team consisted of representatives who will implement the plan. If a variety of stakeholders did not assist with the development of the plan, a description of why they were not involved is included.	Little evidence is included that shows the district actively sought participation from a variety of stakeholders.
3. CURRICULUM COMPONENT CRITERIA Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).			
a. Description of teachers’ and students’ current access to technology tools both during the school day and outside of school hours.	5	The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers.	The plan explains technology access in terms of a student-to-computer ratio, but does not explain where access is available, who has access, and when various students and teachers can use the technology.
b. Description of the district’s current use of hardware and software to support teaching and learning.	6-7	The plan describes the typical frequency and type of use (technology skills/information and literacy integrated into the curriculum).	The plan cites district policy regarding use of technology, but provides no information about its actual use.

<b>c. Summary of the district's curricular goals that are supported by this tech plan.</b>	8-9	The plan summarizes the district's curricular goals that are supported by the plan and referenced in district document(s).	The plan does not summarize district curricular goals.
<b>d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals.</b>	10-14	The plan delineates clear goals, measurable objectives, annual benchmarks, and a clear implementation plan for using technology to support the district's curriculum goals and academic content standards to improve learning.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
<b>e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.</b>	17	The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire technology skills and information literacy skills.	The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to accomplish the goals.
<b>f. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students and teachers can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism.</b>	18	The plan describes or delineates clear goals outlining how students and teachers will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing and/or downloading.	The plan suggests that students and teachers will be educated in the ethical use of the Internet, but is not specific enough to determine what actions will be taken to accomplish the goals.
<b>g. List of goals and an implementation plan that describe how the district will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid online predators.</b>	19	The plan describes or delineates clear goals outlining how students and teachers will be educated about Internet safety.	The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals of educating students and teachers about Internet safety.

<p><b>h. Description of or goals about the district policy or practices that ensure equitable technology access for all students.</b></p>	<p>20</p>	<p>The plan describes the policy or delineates clear goals and measurable objectives about the policy or practices that ensure equitable technology access for all students. The policy or practices clearly support accomplishing the plan’s goals.</p>	<p>The plan does not describe policies or goals that result in equitable technology access for all students. Suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.</p>
<p><b>i. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers’ efforts to meet individual student academic needs.</b></p>	<p>21</p>	<p>The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to support the district’s student record-keeping and assessment efforts.</p>	<p>The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.</p>
<p><b>j. Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.</b></p>	<p>22-24</p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.</p>
<p><b>k. Description of goals about the district policy or practices that support the implementation of technology in the district’s dual language immersion program</b></p>	<p>25</p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.</p>
<p><b>l. Description of goals about the district policy or practices that support the implementation of technology in the district’s special education program</b></p>	<p>26</p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.</p>
<p><b>m. Description of goals about the district policy or practices that support the implementation of technology in the district’s preschool program</b></p>	<p>27</p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.</p>
<p><b>n. Description of goals about the district policy or practices that support the implementation of technology in the district’s libraries</b></p>	<p>28</p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.</p>

<p><b>4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 5 and 12 (Appendix D).</p>			
<p><b>a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.</b></p>	30-33	<p>The plan provides a clear summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development. The findings are summarized in the plan by discrete skills that include Commission on Teacher Credentialing (CTC) Standard 9 and 16 proficiencies.</p>	<p>Description of current level of staff expertise is too general or relates only to a limited segment of the district's teachers and administrators in the focus areas or does not relate to the focus areas, i.e., only the fourth grade teachers when grades four to eight are the focus grade levels.</p>
<p><b>b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (Sections 3d - 3j) of the plan.</b></p>	34-45	<p>The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing teachers and administrators with sustained, ongoing professional development necessary to reach the Curriculum Component objectives (sections 3d - 3j) of the plan.</p>	<p>The plan speaks only generally of professional development and is not specific enough to ensure that teachers and administrators will have the necessary training to implement the Curriculum Component.</p>
<p><b>c. Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.</b></p>	46	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.</p>
<p><b>5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 6 and 12 (Appendix D).</p>			

<p><b>a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components (Sections 3 &amp; 4) of the plan.</b></p>	<p>47-55</p>	<p>The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components.</p>	<p>The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail.</p>
<p><b>b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan.</b></p>	<p>56</p>	<p>The plan provides a clear summary and list of the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support the district will need to support the implementation of the district's Curriculum and Professional Development components.</p>	<p>The plan includes a description or list of hardware, infrastructure, and other technology necessary to implement the plan, but there doesn't seem to be any real relationship between the activities in the Curriculum and Professional Development Components and the listed equipment. Future technical support needs have not been addressed or do not relate to the needs of the Curriculum and Professional Development Components.</p>
<p><b>c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b.</b></p>	<p>57</p>	<p>The annual benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when.</p>	<p>The annual benchmarks and timeline are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when.</p>
<p><b>d. Describe the process that will be used to monitor Section 5b &amp; the annual benchmarks and timeline of activities including roles and responsibilities.</b></p>	<p>64</p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.</p>

<b>6. FUNDING AND BUDGET COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 7 & 13, (Appendix D)			
<b>a. List established and potential funding sources.</b>	66	The plan clearly describes resources that are available or could be obtained to implement the plan.	Resources to implement the plan are not clearly identified or are so general as to be useless.
<b>b. Estimate annual implementation costs for the term of the plan.</b>	66	Cost estimates are reasonable and address the total cost of ownership, including the costs to implement the curricular, professional development, infrastructure, hardware, technical support, and electronic learning resource needs identified in the plan.	Cost estimates are, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed.
<b>c. Describe the district's replacement policy for obsolete equipment.</b>	69	Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components.	Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented.
<b>d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.</b>	69	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.
<b>7. MONITORING AND EVALUATION COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 11 (Appendix D).			
<b>a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.</b>	71	The plan describes the process for evaluation using the goals and benchmarks of each component as the indicators of success.	No provision for an evaluation is included in the plan. How success is determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing.
<b>b. Schedule for evaluating the effect of plan implementation.</b>	72	Evaluation timeline is specific and realistic.	The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan.

<p><b>c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.</b></p>	<p>73</p>	<p>The plan describes the process and frequency of communicating evaluation results to tech plan stakeholders.</p>	<p>The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings.</p>
<p><b>8. EFFECTIVE COLLABORATIVE STRATEGIES WITH PARENTS, ADULT LITERACY PROVIDERS AND COMMUNITY MEMBERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION</b> Corresponding EETT Requirement(s): 11 (Appendix D).</p>			
<p><b>a. If the district has identified adult literacy providers, describe how the program will be developed in collaboration with them. (If no adult literacy providers are indicated, describe the process used to identify adult literacy providers or potential future outreach efforts.)</b></p>	<p>76</p>	<p>The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers or potential future outreach efforts.</p>	<p>There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the use of technology.</p>
<p><b>b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.</b></p>	<p>77</p>	<p>The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve two-way communication between home and school.</p>	<p>The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.</p>
<p><b>9. EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA</b> Corresponding EETT Requirement(s): 4 and 9 (Appendix D).</p>			
<p><b>a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.</b></p>	<p>78</p>	<p>The plan describes the relevant research behind the plan's design for strategies and/or methods selected.</p>	<p>The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing.</p>

<p><b>b. Describe the district's plans to use technology to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance-learning technologies.</b></p>	<p>80</p>	<p>The plan describes the process the district will use to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance learning opportunities (particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources).</p>	<p>There is no plan to use technology to extend or supplement the district's curriculum offerings.</p>
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## **APPENDIX 11D**

### **Technology Maturity Model Description**

The Technology Maturity Model identifies four distinct stages that indicate the level of technology implementation within an organization. Identifying these stages can assist the District in evaluating its current technological state and provide benchmarks for showing progress towards the District's goals. The four stages of technology maturity:

#### *Stage 1 – Emerging* characterized by:

Lack of formal support when using computer technology for instruction.

No formal plans, policies, or procedures exist to ensure the efficient and appropriate acquisition or use of technology throughout the District.

Computers are used sporadically throughout the District.

District-wide coordination to ensure grade-level access is absent.

Formal support for teacher training is minimal.

#### *Stage 2 – Developing* characterized by:

Regular use of computers at one or more grade levels at each school site in the District on a regularly scheduled basis.

Formal plans, policies, or procedures exist to facilitate the optimal use of technology in both instructional and administrative areas throughout the District and school level.

District-sponsored and school site-sponsored training is available.

Technology has budgetary visibility at the District and school site level.

The instructional delivery system is somewhat dependent upon technology.

#### *Stage 3 – Becoming Well-Developed* characterized by:

Regular planned access for students to technology as a means of instruction and an object of instruction.

Teachers' systems also support administrative functions such as grading, attendance, and electronic mail.

Technology has a high budgetary visibility at the District and school site level.

Comprehensive plans, policies, and procedures for instructional and administrative use of technology are reviewed and revised regularly.

The District and schools are advocates of technology training for all personnel.

The instructional delivery system is very dependent on technology.

#### *Stage 4 – Well-Developed* characterized by:

Student access to technology is an indispensable component of instruction.

Every curriculum is augmented by intelligent learning systems.

Administrative functions are automated, integrated, and paperless.

Students, teachers, and parents have access to appropriate systems from home.

Technology is one of the three highest expenditures of District funds.

Technology planning is an integral part of District and school site planning.

The systematic adoption of technologies is ongoing.

Technology advocates at each school assist in the introduction of these new technologies.

Instructional and administrative personnel are well trained and knowledgeable in the use of technology.

## **APPENDIX 11E**

### **Profiles of Technology Literate Students**

#### **Kindergarten**

##### **Hardware & Software**

*– Students will be capable to perform maintenance functions.*

- Locate Keyboard
- Proper care of a CD
- Proper care of a disk

##### **Keyboarding Skills**

- Be able to type first name
- Locate 5 or more numbers on keyboard
- Be able to use spacebar & delete keys

##### **Operations & File Management**

- Turn on computer
- Use mouse, click to select an object

##### **Communication**

*– Students will be capable of being creative, innovative, and able to communicate through technology.*

- Type a sentence with adult help
- Draw an object (house) using a multimedia program such as Kid Pix
- Create a picture using objects, stamps, etc.

##### **Suggested Software for Independent Use**

Story Book Weaver	My First Dictionary
Living Books	Kid Keys
Kid Pix	Kids on Keys
Read, Write and Type	Kid Works
Talking Fingers	

#### **First Grade**

##### **Hardware & Software**

*– Students will be capable to perform maintenance functions.*

- Insert a diskette
- Insert a compact disk
- Name the parts of computer system

##### **Keyboarding Skills**

- Create upper case letters using Shift Key
- Demonstrate correct right and left hand keyboard positions
- Demonstrate difference between Shift and Cap Lock keys
- Demonstrate typing proficiency with home row keys
- Locate the numbers on the keyboard
- Type first and last name

##### **Operations & File Management**

- Use a Pull-Down Menu to Open
- Use a Pull-Down Menu to Quit
- Using a Mouse, click and drag an object

## **Communication**

– *Students will be capable of being creative, innovative, and able to communicate through technology.*

- Create a one page picture story using objects and text
- Print a paragraph and picture
- Compare and edit text using Delete Key
- As a class, create a slide show presentation

## **Suggested Software for Independent Use**

SuccessMaker  
Kid Pix  
My First Dictionary  
Read, Write and Type  
Living Books

Story Book Weaver  
Interactive Reading Journey  
Wiggle Works  
Kid Keys  
Claris Works for Kids

## **Second Grade**

### **Hardware & Software**

– *Students will be capable to perform maintenance functions.*

- Identify keyboard
- Identify monitor
- Identify Mouse
- Identify Desktop
- Identify Floppy Drive and Disk
- Identify CD-Rom Drive and Disk
- Proper handling of mouse, headphones, keyboard, drives and disks
- Launch and exit programs

### **Keyboarding Skills**

- Understand correct way of typing

### **Operations & File Management**

- Create a new document and save it to a folder
- Can delete, copy, save and print
- Save into a floppy disk

### **Communication**

– *Students will be capable of being creative, innovative, and able to communicate through technology.*

- Create a simple theme-related report, based on a group activity
- Understand that there is a World Wide Web and have proper respect for the dangers and pitfalls
- Follow a link on the Web and bookmark it

## **Third Grade**

### **Hardware & Software**

– *Students will be capable to perform maintenance functions.*

- Insert and eject disks
- Insert and eject CD-ROMs
- Restart the computer when it freezes

### **Keyboarding Skills**

- Type sentences and paragraphs
- Learn basic typing skills
- Locate symbols and other items using the Shift Key

### **Operations & File Management**

- Create new documents
- Write stories, poems, letters, etc
- Open, save, close and print files
- Change font, size and style of text
- Basic editing skills
- Begin classroom newsletters
- Use clip art libraries
- Use cut and paste

### **Communication**

*– Students will be capable of being creative, innovative, and able to communicate through technology.*

- Create a multimedia presentation as a group activity
- Access the Internet
- Find a web site using an address (URL)
- Perform a search on the web
- Create a bookmark

Navigate around the web

Begin to evaluate websites.

- Learn to identify commercial advertisement.

## **Fourth Grade**

### **Hardware & Software**

*– Students will be capable to perform maintenance functions.*

- Attach a mouse
- Use external controls to adjust monitor for brightness and contrast
- Restart the computer when it freezes

### **Operations & File Management**

- Create written documents using word processing skills, writing process steps, and publishing programs
- Use electronic spell checker/thesaurus
- Use computer graphic program
- Use publishing software and scanners to produce layouts
- Create a slide using text, picture, audio
- Use a graphic toolbar

### **Communication**

*– Students will be capable of being creative, innovative, and able to communicate through technology.*

- Use Internet searching strategies
- Use electronic encyclopedias, almanacs, indexes and catalogs
- Use databases to search for information
- Use electronic mail
- Evaluate websites.
- Be able to identify the source of information on a site.

### **Productivity**

*– Students will be confident users of technological tools.*

- Use software to strengthen academic skill development
- Use classroom technology tools for problem solving and critical thinking
- Manage personal skill development through using Accelerated Reader and SPAS system independently.

## **Fifth Grade**

### **Hardware & Software**

*– Students will be capable to perform maintenance functions.*

- Eject a disk using keyboard commands
- Restart the computer when it freezes

### **Operations & File Management**

- Using the Ruler insert Tabs and indents
- Create text in a Header or Footer
- Use “Find and Replace” from the Edit Menu
- Log-on/log-off Internet with supervision
- Use the Graphic Tool Bar
- Change Margins
- Close a window
- Create a folder with two files
- Print in landscape and portrait format
- Obey copyright laws
- Adhere to the District’s Policies

### **Technology Peripherals**

- Operate VCR
- Refill paper supply in all printers

### **Communication**

*– Students will be capable of being creative, innovative, and able to communicate through technology.*

- Write a Book Report using a word processor
- Format a document using margins, line spacing and paragraph formation
- Write a poem to add to a class book using a word processor
- Use technology to aid in problem-solving
- Use databases to search for information
- Use electronic mail
- Manage personal skill development through using Accelerated Reader and SPAS system independently
- Evaluate websites. Know how to distinguish between fact and opinion.

### **Productivity**

*– Students will be confident users of technological tools.*

- Use software to strengthen academic skill development
- Use classroom technology tools for problem solving and critical thinking
- Manage personal skill development through using Accelerated Reader and SPAS system independently

## **Sixth Grade**

### **Hardware & Software**

*– Students will be capable to perform maintenance functions.*

- Confidently execute proper computer operations
- Troubleshoot a computer and printer for minor problems
- Eject a disk using external methods or keyboard
- Restart the computer when it freezes
- Learn new hardware & software to apply to the curriculum

### **Operations & File Management**

- Use Tabs and Indents
- Create text in a header or Footer
- Use the Window menu to move between multiple files
- Use "Find and Replace" from the Edit Menu
- Log-on/log-off Internet with supervision
- Use the Graphic Tool Bar tools
- Format a document using margins, line spacing and paragraph formation
- Merge documents
- Obey copyright laws and adhere to the District's Policies and Contracts

### **Technology Peripherals**

- Operate video camera and digital camera independently

### **Communication**

*– Students will be capable of being creative, innovative, and able to communicate through technology.*

- Use word processing to produce at least two class projects
- Use databases to search for information
- Use electronic mail
- Judge quality websites based on scope of information, reliability, and appropriateness to student need.

### **Productivity**

*– Students will be confident users of technological tools.*

- Use software to strengthen academic skill development
- Use district math software
- Use classroom technology tools for problem solving and critical thinking
- Manage personal skill development through using Accelerated Reader and SPAS system independently

The intent is to build "interactive video" resources into the curriculum so that students can interact with other students, professionals (scientists, etc.) both in the United States and in Spanish speaking countries. Emphasis on scientific experiments, dialogue with others and access to information that supports the academic achievement and projects that students are working on is intent of this effort. The District is committed to finding and using the hardware and software configurations and the network size and speed to exploit these kinds of learning opportunities.

## **APPENDIX 11F**

### **Recommended Standards & Models: Minimum Hardware Standards**

#### *Computers*

It is the understanding of all parties, that no one computer can best meet the needs of all levels of education in the school district. Platforms of IBM (and IBM compatibles) and Apple Macintosh (and compatible) computers will be accepted as standard. The minimum standards listed here are targets for new purchases of computers and for donated computers that can be supported. The Technology Committee should review the capabilities in the Standards Section every 6 months.

The minimum hardware requirement is an Intel Core 2 Duo processor with 2GB RAM, 24X speed drive with sound card, 120 GB hard drive, 4 USB 2.0 parallel and VGA ports for peripherals devices. This platform allows flexibility to be used on windows, MacOS and Linux operating system platforms.

To more effectively use the computers with LAN systems, all new computers will be configured with an Ethernet 10/100/1000 BaseT-network card.

Although the minimum requirements increase almost monthly, older computers will continue to support many applications in the school settings. As applications change, computer hardware must be continually upgraded to meet the District's needs. Those machines that don't meet the District's needs should be upgraded or replaced.

#### *File Servers*

All file servers shall be compatible with the District's networking system. These machines should have hot - swappable RAID 5 capable hard drives, which will prevent the loss of the server's data. Servers should assign district IP addresses using the DHCP protocol. All servers have dual processors which may be clustered to increase operating efficiency and a minimum of 2 GB of RAM memory.

*Uses:* Domain Name Server (DNS), network hub, network management, electronic mail, Internet applications, such as FTP, World Wide Web, gopher, news groups, and listservs.

The server is a practical alternative to purchasing Internet accounts for multiple computer and classroom applications. The server provides many services in exchange for a modest investment in hardware and software.

#### *The server:*

Provides a basis for a local area network (LAN).

Allows the location to establish an identified presence on the Internet.

*This is known as a domain name.*

Provides individual email accounts.

Provides the host server with client-server applications.

Provides capability for reloading programs for classroom usage.

Provides Internet security, network monitoring, and encryption.

#### *Monitors*

The classroom workstation monitors will be at least 15-inch color LCD that are energy star compliant. The monitor should be able to support a minimum of thousands of colors. The video boards must have at least 2 MB of memory to accommodate graphics. It is recommended that 17-inch monitors or larger be used in computer aided drafting/design and publications labs.

Requirements for monitors and video cards are increasing rapidly. Newer applications require high resolution graphics; the monitor should be connected to a computer using a 32-bit on-board video card.

#### *Portable Devices*

As portable devices become more prevalent, MIS staff will investigate the various models and make recommendations to school staff for purchase. In addition, the technology plan update committee and technology liaisons will determine the uses of portable devices as they are able to be integrated into the classroom and meet the technology requirements of the common core standards and make recommendations to staff for purchase and use.

### *Hard Drives*

All hard drives should be at least 80 GB and meet the needs of the computer and environment requirements in its use.

### *Printers*

All schools should have at least one laser printer, installed in a place accessible to all site employees. All computer facilities should be equipped with ink jet or laser printers. It is recommended that networked computers should have one printer for every 4-5 computers.

Laser printers should print at a minimum of 300 dpi, must be capable of being used on a network, and must be compatible with the hardware and software for its intended use. A 600-dpi laser printer is recommended for applications requiring extensive graphics or publication.

While a laser printer is preferential for most applications, an ink jet printer can provide low cost color printing and portability. Minimum requirements for ink jet printers are 300 dpi with the ability to network is recommended. Color printers should have a true black with separate black, red, blue, and yellow cartridges.

### *CD - ROM's*

All CD-ROM's are to be at least 52X speed.

### *Scanners*

Minimum of 1200X1200 dpi (interpolated resolution) 24-bit color scanner. Publishing option is a full page, single pass, 2400 X 2400 dpi, and 36-bit color scanner.

### *Video Digitizers*

Video capture cards should be PCI based and support video capture rates of 30 frames per second at 320X240 resolution. Computers with video capture cards should have at least 6-Gigabyte hard drives.

### *Routers, Switches, and Hubs*

These are designed to support Ethernet 10/100/1000-Base T standards as a minimum or Gigabit standards if available. Cisco is the District's preferred vendor for routers and switches.

### *Computer Projection Devices*

Computer projection devices are LCD projectors that display the computer monitor onto a screen. Minimum requirements for computer projection devices are a projection distance of at least 60 feet in a darkened room, separate audio in and out plus radio frequency (RF) in, and adapters for both IBM/PCs and Macintosh video connections.

### *LCD Overhead Panel*

LCD Overhead Panels are used in conjunction with overhead projectors to display the computer monitor onto a screen. Minimum requirements for LCD overhead panels are a projection distance of 40 feet in a fully illuminated classroom, and a 256-color or grayscale display. If used to show moving pictures or quick time movies, then a panel capable of 38,000 colors is required. In addition, an overhead projector that runs cool is required in order to prevent damage to the LCD panels.

### *Television Receiver/Monitor*

All sets are to be 25 inches or greater with audio, video, and radio frequency (RF) input. The set must have a remote and the ability to be controlled from both the remote and front panel. Monitors should be equipped with composite and S-video cable input.

### *Video Cassette Recorder*

All VCRs must have both play and record capabilities, be VHS compatible, with audio in and out, video in and out, radio frequency (RF) in and out, 4 head for stable picture pause, one week 4 events record, two speed record for SP and EP. Flying erase head is required if the machine is to be used for editing videos. Video production options should be capable of recording at SVHS standards.

### *Computer to Video Converters*

Each school site should have IBM compatible or Macintosh video converters to convert computer video signals to standard TV signals for use with a regular TV monitor.

### *Audio Cassette Player/Recorder*

All cassette recorders must accept the standard cassette and play at standard speed. Classroom recorders do not need to be stereo. Variable speed is an optional addition for special need students. It is recommended that audiocassettes have audio in and out.

## **Other Recommended Minimum Standards Internet Connection Requirements**

Basic service for Internet access should be a minimum of 45 Mbps (T-3) to provide acceptable transfer rates.

### **External Connection**

A single communication circuit should connect the school LAN to the District's WAN. In the school there will be a Network Router attached between the LAN and this circuit. The router should provide routing that divides student uses from administrative uses, such as attendance and fiscal. On the LAN Side, the connection will be a fiber optic networking cable. On the external side, the connection will depend on the type of communication circuit used. Equipment will be Simple Network Management Protocol (SNMP) compatible.

### **Interconnection of Schools with District Offices (WAN)**

All schools within a district should be connected individually to the network router at the District Office. The "star topology" (or similar system) will be easier to manage and will minimize conflicting use of the rather low communication bandwidth initially available to the schools. As needs change, the capacity of each school's connection can be increased appropriately.

### **School Wiring**

All classrooms should be wired to a server in a school wide LAN. The conduit should have sweeps for the future installation of fiber. If possible fiber should be installed immediately as the increased cost is not significant relative to twisted copper wire.

All new network wiring must meet, as a minimum, Category 6/Level 5 specifications. All libraries will have a fiber drop directly to the MDF/IDF.

Category 6/Level 5 wiring is designed and installed according to exact specifications to allow the operation of data signals at bandwidths of up to and including 1000/MBPS. This is required in order to use new technologies that combine voice, video, and data on a single cable. The distance of the run between two points on any connection of the network will determine exactly what type of wiring (unshielded twisted pair, shielded twisted pair, or fiber optic) is used.

## **Network Design**

The following design specifications are provided. Detailed designs based on onsite inspections are necessary for accurate budgeting.

*The design parameters that are normally used for an estimate are:*

The Main Distribution Frame (MDF) should be located in an existing room or equipment closet. Sufficient electrical power must be present at each building, but additional power may need to be routed to the MDF or Intermediate Distribution Frame (IDF). The MDF/IDF must be well ventilated.

All connections from the MDF to the IDF will be fiber using a minimum of six multi-mode and one monofilament fiber. Four multi-mode strands will be terminated and the remainder will be reserved for future use. Ideally, there will be one drop in 1-inch conduit for every wall, space 14 feet apart.

All IDF to room connections are based on six drops to each room and two terminations at each drop. All drops are the same routing from the IDF to the room.

No provision is made for additional voice connections to the room.

The video (coaxial) connections to each room must be routed at least six inches from the UTP cable carrying the data to the rooms. No conduit or raceway will be budgeted for video runs from the IDF to the individual room. Nothing but fiber optic cable should be in the fiber optic conduit to prevent damage to the cable.

The conduit estimates are based on running specified materials in the most cost-effective manner. This means that the conduit will often be in view. This is now the common practice for retrofitting sites.

The IDF should be located in the nearest room to the MDF. In some cases this will be a classroom. Moving the IDF to a point further away from the MDF will increase costs. IDFs must not exceed 290' from their end connections.

The electronic costs assume two computer connections used at each room are supported by the IDF. If additional connections are required, a mini-hub for the room may need to be purchased.

No client-end hardware and software are usually included in the networking estimates.

## **Learning Environment Models**

The following models are provided as a guide for the acquisition of new technology at National School District. Due to the fact that technology changes so rapidly with new technologies always in development, these models should be reviewed annually and updated as needed.

It should be understood that these models are offered as recommended standards, and may not be achievable immediately. The configurations described may be used for the purpose of evaluating existing hardware in each environment in the District against standards that have considerable support in the broader education community throughout California.

Once the learning environment models have been adopted, standardized purchasing is essential for cost-effective implementation. Standardized purchasing reduces costs and improves effectiveness. The District should not support purchases not conforming to the minimum standards.

## **Standard Classroom**

The standard classroom should be the initial state of technology that should exist in all classrooms in the District.

*The standard classroom has:*

Presentation system in each classroom (Multimedia)

LCD Projector and screen

VCR / DVD

Promethean ActivBoard

Workstations with a laptop for each teacher

Student to computer ratio 4:1 (including special education students)

Workgroup switches for more computers - more drops per room is better

PC accepted as standard with MAC used to support multimedia and other special projects

Scanner and digital camera (1 per every 2 classrooms)

Computers w/CD burner/DVD drive and external drives available

Printers - at least one networkable color for dual platform in each class

Access to a networked laser printer (library-workroom-classroom)

Computer furniture

Specialized technology and needed modifications will be made to meet the requirements of special needs students.

Each classroom should have a minimum of four network outlets, including one for cable television.

Objective: Create a standardized list of choices for technology purchases (scanners, cameras, etc.). The list should be developed and updated as necessary by the Technology Planning Committee and the Director of Instructional Technology.

Objective: All major technology purchases over a pre-determined dollar amount should be approved by more than one approving-body.

## **Library - Media Center**

The library-media center houses the technology for use in the center as well as for checkout and use in school and home settings. The library-media center also is the hub for the school's LAN and serves as the connections to outside telecommunications-based resources.

*The library-media center has:*

Library file server connected to the Internet and a variety of data sources

Banks of laser-disc players, VCR's and CD-ROM towers containing learning resources that may be accessed by other teaming environments

Telephone with outside access

Direct connection to the Internet

CD-ROM writer (allows building a CD-ROM)

The school has available for staff and student use (housed either in the library-media center or distributed throughout the school):

Computers with CD-ROM and speakers

Scanner

Laser printer on a shared network

Headphone sets

Color printer on a shared network

Tape recorder

Large television monitor & VCR

Copy machine

CD/DVD

The library-media center should have a minimum of nine network outlets, including one for cable TV.

*The school has for checkout purposes:*

Camcorder with microphone and tripod  
Laptop computers  
CD/DVD  
Combination VCR and monitor  
Digital camera  
High-intensity overhead projector  
Projection screen  
Tape recorder  
Liquid crystal display (LCD) panel/projection unit  
Sets of headphones  
Heavy duty lockable carts for transporting equipment  
High-end speakers  
Microscopy camera

### **Technology Laboratory**

Although the technology laboratory is used partly for large group instruction and skill development, it may also be used as a productivity center when not used for instruction.

*The technology laboratory has:*

High-end multimedia computer, with CD-ROM, connected to the network enabling teacher to manipulate data and control the computers in the laboratory  
Digital video and CD burner w/ DVD drive  
Mobil wireless laptops for training and classroom use loan  
Student to computer ratio of 1 to 1 for any anticipated classes  
Networked computers with earphones  
Scanner  
High-speed laser printer on a shared network  
Color printer on a shared network  
Cordless telephone with outside access  
Direct connection to the Internet  
Tape recorder  
Large television monitor & VCR  
CD/DVD  
LCD projector with video capacity  
Promethean ActivBoard and peripherals

### **School Administration**

School administration includes activities related to parent and community communications, attendance, finance, assessment, maintenance, safety, food services, athletics, staff development, resource management, and accountability.

*School Administrators should have available:*

Computer workstation connected to the WAN  
Appropriate software for student management  
Appropriate communications software  
Access to electronic versions of district forms  
Networked laser printer  
OCR capable scanner

## APPENDIX 11G

### Curriculum Integration Lessons

The philosophy of the National Educational Technology Standards for Students is grounded in the belief that the world is changing in ways that require learning environments to change to prepare students to meet the Goals of the future. A growing body of information that students must be able to work with has changed the focus of classroom instruction. Instruction must build on basic skills so that students learn how to find, access, and assess information to address issues, some of which are yet to be defined.

The title of this section, "Curriculum Integration," is intended to convey the importance of integrating the use of technology into the curriculum. If it had been titled "Technology Integration," the reader would think that the focus is technology. In fact, the purpose of the learning activities is to focus the technology use on curriculum — discipline-specific, content-area curriculum — using technology as a tool to foster higher-level outcomes. With this in mind, there are several questions that drive how technology is used in the classroom:

What if there is limited access to the technology?

How can a lesson meet both curriculum standards and NETS for Students?

How can technology be used in ways that optimize instruction?

### Access to Technology

NETS is designed for use in today's classrooms. The learning activities involve hardware and software that are commonly available. Perhaps what is most difficult is to adopt an instructional mindset that frees students to be in charge of their learning, even though they may be using rather expensive equipment! Teachers must set the instructional stage in ways that support new learning environments (Establishing New Learning Environments). They must also set the behavioral stage with clearly agreed upon expectations for the use of technology in the classroom. Accomplishing this will promote the use of technology in ways that positively affect instruction.

Some classrooms have computers in every corner. Some classrooms share one computer. Other classrooms have access to one or more computers in a lab setting down the hall. Issues of access can be addressed through lesson organization and classroom management. The learning activities in this section are structured in ways that make it possible to complete an activity regardless of how students access hardware. Obviously, a one-to-one ratio of computers to students is ideal. However, although the student-to-computer ratio is dropping rapidly, the one-to-one ratio is still uncommon.

In one-computer-classrooms, computers can be used as a tool for instruction in a variety of ways:

**Cooperative Group Station** — Assign different topics to individual groups within a larger study. Have at least two topics dependent on the use of the computer. In this way, two groups will be allotted significant time on the computer during the project. Additional time outside the group meeting time can be set aside for other groups to access resources or prepare presentations. It is important to ensure a rotation such that all students have an opportunity to participate in the technology-enriched activity.

**Demonstration Station** — Instruct an entire class at one time, using a large-screen monitor, LCD panel, or classroom television connected to a computer. The teacher can operate the computer and/or rotate the job of "computer engineer" between students, providing them with some hands-on experience and positive reinforcement.

**Independent Research Station** — Place the computer in a location that enables groups to access electronic resources, as needed. Some teachers find that a sign-up sheet promotes equitable access. Learning Center — Position one computer as part of a well-defined activity. This station should be one within a rotation of a group of learning centers.

Schools have been installing computer labs as a way to provide cost-effective access to the Internet, from a single point, while making maximum use of a limited number of machines. Some schools have invested in a "computer teacher" who plans with the classroom teacher so that lab time fully supports classroom instruction. The team planning approach combined with the library media specialist provides a powerful model for an effective lab. Whereas many schools still use their labs solely for integrated learning system (ILS) software that tracks individual student

progress in teaching basic skills, others have arranged their labs in ways that make the lab more of an extension of the classroom. There are a variety of ways to organize computer labs:

**Cooperative Groups** — Small groups of students work together in the lab to find specific resources or information. They can be assigned different aspects of a problem and compare online information, or do different parts of a project (e.g., preparation, searching, and desktop publishing).

**Short-Term Technical Skill-Building** — The lab is used as a place to teach students how to use a specific piece of software to enhance a current project. On-demand learning is most efficient when all students are able to practice the skill quickly and accurately, under the tutelage of a teacher and computer specialist.

**Small Group Instruction** — In this setting, small groups of students work with the teacher on a specific topic or skill while the rest of the class is engaged in another activity. Small group instruction may be electronically mediated and utilize electronic tools to check understanding.

### **One Learning Activity Meets Two Sets of Standards**

The NETS for Students focuses on what students know and are able to do with technology as a tool for learning. Meeting the NETS for Students cannot be accomplished devoid of content. There must be a context in which the technology is used so that students can demonstrate their ability to meet the standards. Therefore, the learning activities in Curriculum Integration Lessons and Multidisciplinary Resource Units are cross-coded with both the curriculum area standards and the NETS for Students. It is anticipated that within the context of teaching a specific concept, technology tools will be used where appropriate. When students need to be instructed in how to use the technology (e.g., appropriate use, ethics, etc.), the teacher can use the curriculum context to teach the needed technology skills, and then return to curriculum instruction, using the technology as a tool to enhance the learning. In this way, both the content-area standards and the NETS for Students are addressed within the context of the same learning activity.

### **Optimizing Instruction through Technology / Organization of Curriculum Activities / Lessons**

The learning activities are designed to optimize instruction by infusing the use of technology into a sample set of learning activities. The activities are designed for use in classrooms where the organization of the school or grade level is around curriculum areas. In contrast, Multidisciplinary Resource Units are divided into major content areas with two examples at each grade-level range, within the subject.

### **Grade-level Ranges are as Follows:**

Primary Grades	PreK-Grade 2
Intermediate Grades	Grades 3-5
Middle Grades	Grades 6-8

Each of the five curriculum areas within Curriculum Integration Lessons is preceded by an introduction that describes the use of technology in that particular curriculum as well as an overview of the learning activities within the section. There are powerful uses for technology in the teaching and learning of other curriculum areas, such as music and art, but the main focus of this book is five subject areas:

- English Language Arts
- Foreign Language
- Mathematics
- Science
- Social Studies

Careful examination of the learning activities will reveal that Curriculum Integration Lessons and Multidisciplinary Resource Units both address the topic of weather. Using the same topic for a learning activity and a multidisciplinary unit was intentional, to demonstrate that a single topic can be geared for both the content-area organizational structure as well as the multidisciplinary structure. The weather learning activity can be found in the Intermediate Grades 3-5 area of the Science section. Here, the point is to look at the development of weather patterns, the inquiry method of instruction in science, and develop a general understanding of the nature of weather. The multidisciplinary unit on weather, located in the primary grades section, purposefully brings in the collection of data overtime, graphing the data as the mathematical trend is examined, reading and writing about the effects of weather, studying the historical effects of weather and its effects on people's decision making, as well as the geography of weather. There is a significant amount of weather information available online, making access to the Internet imperative for gathering the latest data. (NETS online at <http://cnets.iste.org/integration.htm>)

**APPENDIX 11H**

**District Internet Acceptable Use Contract - Employees**

**NATIONAL SCHOOL DISTRICT  
Employee Acceptable Use Contract**

Employee Name: \_\_\_\_\_ Site: \_\_\_\_\_ Date: \_\_\_\_\_

The National School District is offering Internet access for District employees who qualify as a result of participation in an orientation or training course, or can demonstrate knowledgeable use. National School District strongly believes in the educational and administrative value of such electronic services and recognizes the potential of such to support our curriculum and student learning as well as administrative uses. Our goal in providing this service is to promote educational and administrative excellence by facilitating resource sharing, innovation and communication. National School District will make every effort to protect students and employees from any misuses or abuses as a result of their experiences with an information service. All users must be continuously on guard to avoid inappropriate and illegal interaction with the information service. The National School District system has not been established as a public access service or a public forum.

Please read this document carefully. When signed by you and your administrator, it becomes a legally binding contract. We must have your initials where indicated and your signature and that of your administrator before we can provide you with an access account. Listed below are the provisions of the contract. If any user violates these provisions, access to the information service may be denied and you may be subject to disciplinary action. NSD has the right to place reasonable restrictions on the material you access or post through the system. You are also expected to follow the rules set forth in your school, the District, and the Education Code.

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**EMPLOYEES MAY NOT USE THE DISTRICT INTERNET SYSTEM UNTIL THIS CONTRACT IS SIGNED AND RETURNED**

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**Terms and Conditions of This Contract**

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**Personal Responsibility**

As a representative of this District, I will accept personal responsibility for reporting any misuse of the network to the system administrator. Misuse can come in many forms, but it is commonly viewed as any message(s) sent or received that indicate or suggest pornography, unethical or illegal solicitation, racism, sexism, inappropriate language, and other issues described below. All the rules of conduct described in the District publication entitled "Guidelines on the Acceptable Use of Electronic Information Resources" apply when I am on the network.

*I have read and understand this provision.* \_\_\_\_\_ *(Initial)*

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**Acceptable Use.**

The use of my assigned account must be in support of school or District business and/or education and research and with the educational goals and objectives of the National School District (these may be found in the District Board policy). I am personally responsible for this provision at all times when using the electronic information service.

Use of other organization's networks or computing resources must comply with rules appropriate to that network.

Transmission of any material in violation of any United States or other state organization is prohibited. This includes, but is not limited to: copyrighted material, threatening or obscene material or material protected by trade secret.

Use of commercial activities by for-profit institutions is generally not acceptable.

Use of product advertisement or political lobbying is also prohibited.

I am aware that the inappropriate use of electronic information resources can be a violation of local, state and federal laws and that I can be prosecuted for violating those laws.

*I have read and understand this provision.* \_\_\_\_\_ *(Initial)*

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## **Privileges.**

The use of the information system is a privilege, not a right, and inappropriate use will result in a cancellation of those privileges. Each person who receives an account will participate in an orientation or training course with a designated staff member as to proper behavior and use of the network. The Technology Planning Committee serves as an advisory group to the Superintendent's Cabinet, which will decide what appropriate use is and the decision of the Cabinet is final. The Director of Technology may close an account at any time deemed necessary. Any administrator, staff or faculty of National School District may request that the Director deny, revoke or suspend specific user accounts.

*I have read and understand this provision. \_\_\_\_\_ (Initial)*

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## **Network Etiquette and Privacy.**

You are expected to abide by the generally accepted rules of network etiquette. These rules include (but are not limited to) the following:

**BE POLITE.** Never send, or encourage others to send, abusive messages.

**USE APPROPRIATE LANGUAGE.** Remember that you are a representative of our District on a non-private system. You may be alone with your computer, but what you say and do can be viewed globally. Never swear, use vulgarities, or any other inappropriate language. Illegal activities of any kind are strictly forbidden.

**PRIVACY.** Do not reveal your home address or personal phone number or the addresses and phone numbers of students or colleagues.

**ELECTRONIC MAIL.** Electronic mail (email) is not guaranteed to be private. Messages relating to or in support of illegal activities must be reported to the authorities.

**DISRUPTIONS.** Do not use the network in any way that would disrupt use of the network by others.

### **OTHER CONSIDERATIONS:**

Be brief. Fewer people will bother to read a long message.

Minimize spelling errors and make sure your message is easy to understand and read.

Use accurate and descriptive titles for your articles.

Tell people what it is about before they read it.

Get the most appropriate audience for your message, not the widest.

Remember that humor and satire is very often misinterpreted.

Remember if you post to multiple groups specify all groups in a single message.

Cite references for any facts you present.

Forgive the spelling and grammar errors of others.

Keep signatures brief.

Remember that all network users are human beings. Don't "attack" correspondents; persuade them with facts.

Post only to groups you know.

*I have read and understand this provision. \_\_\_\_\_ (Initial)*

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**Services.**

The National School District makes no warranties of any kind, whether expressed or implied, for the service it is providing.

National School District will not be responsible for any damages suffered while on this system. These damages include loss of data as a result of delays, non-deliveries, mis-deliveries, or service interruptions caused by the system or your errors or omissions. Use of any information obtained via the information system is at your own risk. National School District specifically disclaims any responsibility for the accuracy of information obtained through its services.

*I have read and understand this provision. \_\_\_\_\_ (Initial)*

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**Security.**

Security on any computer system is a high priority because there are so many users. If you identify a security problem, notify the system administrator at once. Never demonstrate the problem to the other users. Never use another individual's account without written permission from that person. All use of the system must be under your own account. Any user identified as a security risk will be denied access to the information system.

*I have read and understand this provision. \_\_\_\_\_ (Initial)*

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**Vandalism.**

Vandalism is defined as any malicious attempt to harm or destroy data of another user or any other agencies or networks that are connected to the system. This includes, but is not limited to, the uploading or creation of computer viruses. Any vandalism will result in the loss of computer services, disciplinary action, and legal referral.

*I have read and understand this provision. \_\_\_\_\_ (Initial)*

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**Updating.**

The information service may occasionally require new registration and account information from you to continue the service. You must notify the electronic information resources system administrator of any changes in your account information.

*I have read and understand this provision. \_\_\_\_\_ (Initial)*

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**Honoring Copyright Provisions**

Copyrighted material may not be placed on the system without the author's permission. Employees may download copyrighted material only in accordance with applicable copyright laws.

*I have read and understand this provision. \_\_\_\_\_ (Initial)*

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**Development of Classroom or Work-Related Websites, Blogs, Forums, or Other Online Communications.**

Employees shall not develop any classroom or work-related websites, blogs, forums, or similar online communications representing the district or using district equipment or resources without permission of the Superintendent or designee.

Such sites shall be subject to rules and guidelines established for district online publishing activities including, but not limited to, copyright laws, privacy rights, and prohibitions against obscene, libelous, and slanderous content. Because of the unfiltered nature of blogs, any such site shall include a disclaimer that the district is not responsible for the content of the messages. The district retains the right to delete material on any such online communication.

*I have read and understand this provision.* \_\_\_\_\_ *(Initial)*

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*I have read, understand, and will follow all rules, regulations, and policies when accessing and using the District's electronic information resources system.*

Employee Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Administrator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**APPENDIX 11I**

**District Internet Acceptable Use Contract – Parents and Students**

**National School District (NSD) Parent and Student Agreement**

**Acceptable Use Policy for Networks, Including the Internet**

As the parent or guardian of this student, I have read the Acceptable Use Policy in this packet and have discussed it with my child. I understand that computer access is provided in NSD for educational purposes in keeping with the academic goals of NSD and that student use for any other purpose is inappropriate. I recognize that it is impossible for NSD to restrict access to all controversial materials, and I will not hold the school responsible for materials acquired on the school network. I understand that children's computer activities at home should be supervised as they can affect the academic environment at school. With my signature, I hereby give permission for my child to use computer resources in NSD.

Parent/Guardian Signature

Date. \_\_\_\_\_

**STUDENTS MUST SIGN THE STATEMENT BELOW REGARDING INTERNET USE:**

As a NSD student, I understand that the use of the school network and email is a privilege, not a right. I understand that my school network and email accounts are owned by NSD and are not private. NSD has the right to access my information at any time. I understand that NSD administrators will decide what conduct is inappropriate use if such conduct is not specific in this agreement. I will use computers and other devices in a manner that complies with laws of the United States and the State of California. I understand that I am to notify an adult immediately if I encounter material that violates appropriate use.

I understand and will abide by the Acceptable Use Policy. I will use NSD technology resources productively and responsibly for school-related purposes. I will not use my technology resource in such a way that would disrupt the activities of other users. I understand that consequences of my actions could include loss of computer privileges and/or school disciplinary action as stated in the Code of Conduct and/or prosecution under state and federal law.

Student Signature (age 5 and older)

Date \_\_\_\_\_

**Media Appearances**

As a NSD student, there will be a variety of opportunities for participation in various media appearances in the classroom and school. I give permission for NSD to record, film, photograph, interview and/or publicly exhibit, distribute, or publish in print and in electronic media my son/daughter's name, appearance, spoken words and works, where undertaken by school staff, students, or anyone outside the school, including the media. I agree that NSD may use, or allow others to use, those works without limitation or compensation. I release my child's school and NSD staff from any claims arising out of my child's appearance or participation in these works. If you do not want this information released without your consent, check the box below.

DO NOT release the information listed above without my consent.

Parent/Guardian Signature

Date. \_\_\_\_\_

Student Signature (age 5 and older)

Date. \_\_\_\_\_

## Contrato de Padres y Estudiantes del National School District (NSD)

### Norma para el Usa Aceptable de la Red de Comunicaci6n, Incluyendo la Internet

Como padre o encargado de este estudiante, he leído la Norma para el Usa Aceptable en esta paquete y las he discutido con mi hijo. Entiendo que el acceso a las computadoras en NSD es provisto para prop6sitos educativos para mantener los objetivos academicos de NSD y que es inapropiado que los estudiantes le den cualquier otro uso. Reconozco que es imposible para NSD restringir el acceso de todo material controversial y que no hare responsable a la escuela por el material adquirido en la red de la escuela. Entiendo que las actividades de los nifios en las computadoras de la casa deben de ser supervisadas debido a que pueden afectar el ambiente academico en la escuela. Con mi firma a continuaci6n indica que le day permiso a mi hijo a utilizar los recursos de las computadoras en NSD.

Firma del Padre/Encargado

Fecha

### LOS ESTUDIANTES TIENEN QUE FIRMAR LA SIGUIENTE DECLARACION CON RESPECTO AL USO DE LA INTERNET:

Como estudiante de NSD, yo comprendo que el usa de la red electr6nica escolar y del correo electr6nico es un privilegio, no un derecho. Entiendo que la red electr6nica de mi escuela y la cuenta de correspondencia electr6nica le pertenecen a NSD y no son privadas. NSD tiene el derecho de tener acceso a mi informacion en cualquier momenta. Entiendo que los administradores de NSD decidiran cual conducta es de usa inapropiado si tal conducta no esta especificada en este acuerdo. Utilizare las computadoras y otros recursos de tecnologla de manera que cumpla con la leyes de los Estados Unidos y el Estado de California. Yo entiendo que debo notificarle a un adulto inmediatamente si encuentro material que viole el usa apropiado.

Entiendo y estoy de acuerdo en adherirme al comportamiento indicado en la Norma para el Uso Aceptable. Utilizare los recursos de tecnologfa de NSD de manera productiva y responsablemente para prop6sitos .relacionados con la escuela. No utilizare ningun recurso de tecnologfa de manera que pueda distraer las actividades de otros usuaries. Yo comprendo que las consecuencias de mis acciones podrfia incluir el perder de los privilegios del usa de las computadores y/o tamar acci6n disciplinaria de la escuela como esta pautado en el C6digo de Conducta y/o ser procesado bajo las leyes estatales y federates.

Firma del Estudiante (5 afios o mayor)

Fecha. \_\_\_\_\_

### Aparici6n en los Medias de Comunicaci6n

Como estudiante de NSD, habra muchas oportuni.dades para participaci6n en varias apariciones en los medias adentro de la clase y escuela. Doy autori.zaci6n a NSD para que grabe, filme, tome fotografas, entreviste y/o haga publico, distribuya o publique en prensa o electr6nicamente, el nombre, apariencia y voz de mi hijo/a, ya sea hecho por el personal de la escuela, estudiantes o cualquier otra persona fuera de la escuela, incluyendo los medias de comunicaci6n. Estey de acuerdo en que NSD puedan utilizar o permitirles a otros que utilicen estes trabajos sin limite o compensaci6n. Libra a la escuela de mi hijo/a y al personal de NSD de cualquier reclamo que pueda surgir a raiz de que mi hijo/a aparezca o participe en estes trabajos. Si usted no quiere que esta informacion sea compartida sin su consentimiento, marque el cuadro de abajo.

NO comparta la informacion mencionada arriba sin mi consentimiento.

Firma del Padre/Encargado

Fecha \_\_\_\_\_

Firma del Estudiante (5 afios o mayor)

Fecha. \_\_\_\_\_

**Appendix J – Technology Plan Contact Information (Required)**

Education Technology Plan Review System (ETPRS)  
Contact Information

County & District Code:   37   -   68221  

School Code (Direct-funded charters only): \_\_\_\_\_

LEA Name:   National School District  

\*Salutation: Mr.   Ms.   Dr.   Mrs.X

\*First Name:   Paula  

\*Last Name:   Jameson-Whitney  

\*Job Title:   Assistant Superintendent, Educational Services  

\*Address:   1500 N Avenue  

\*City:   National City  

\*Zip Code:   91950  

\*Telephone: (   619   )   336-7742   Ext: \_\_\_\_\_

Fax:   (619) 336-7551  

\*Email:   paula.jameson-whitney@national.k12.ca.us  

Please provide backup contact information.

1<sup>st</sup> Backup Name:   Cindy Vasquez  

Email:   cvasquez@nsd.us  

2<sup>nd</sup> Backup Name:   Larry Troisi  

Email:   ltroisi@nsd.us  

\*Required information in the ETPRS