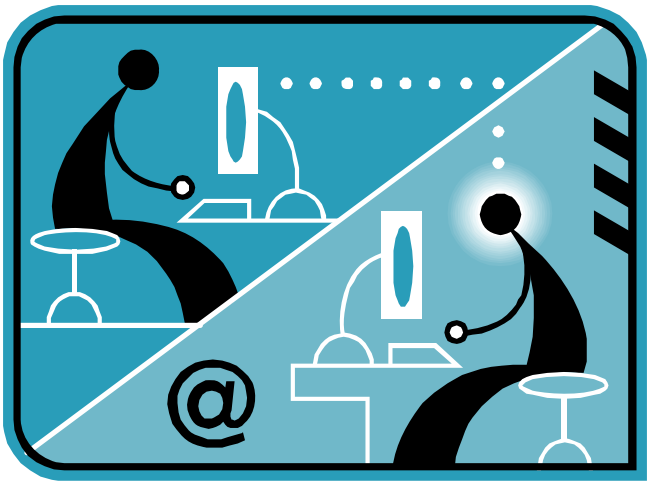
Technology Plan Template for California Catholic Schools



Developed by:
The California Catholic School Superintendents
Curriculum Committee

PREFACE

The following documents are provided to assist schools in completing the Tech Plan components listed 1 – 12 in the Table of Contents. It is recommended that a school review each of these resource documents prior to the development of their tech plan to ensure an in-depth understanding of the template requirements. By carefully studying and utilizing the resources provided, a comprehensive technology plan will be developed for your school site.

Rationale for a School Site and Arch/Diocese Technology Plan

1. To improve student learning through effective use of technology
2. To provide federal funding opportunities for school communication and technology infrastructure
3. To provide schools with tech plans which will increase their eligibility for grants
4. To provide schools with technology curriculum guidelines and resources
5. To increase teacher and administrator technology competencies

OVERVIEW

Technology Planning Toolkit / Timeline of Suggested Action Steps

Curriculum

Action Step	Person Responsible	Completion Date
Assess the availability of appropriate technology to meet the individual needs of teachers and students both during the school day and outside school hours.		
Assess the Diocesan school's current use of hardware and software to support teaching and learning.		
Review the Diocesan school's curricular goals as presented in various Diocesan and site comprehensive planning documents.		
Develop clear goals and a specific implementation plan for using technology to improve teaching and learning.		
Develop clear goals and a specific implementation plan describing how and when students will acquire technological and information literacy skills needed to succeed in the classroom and the workplace.		
Develop clear goals and a specific implementation plan for programs and methods of utilizing technology that ensure appropriate access by all students.		
Develop clear goals and a specific implementation plan to utilize technology to make student recordkeeping and assessment more efficient and supportive of teachers' efforts to meet each student's academic needs.		
Develop clear goals and a specific implementation plan to utilize technology so that teachers and administrators can be more accessible to parents.		
Compile benchmarks and a timeline for implementing the strategies and activities.		
Develop a process to monitor whether the strategies and methodologies utilizing technology are being implemented according to the benchmarks and timeline.		
Determine the indicators of success that will be used to evaluate whether implementation of the plan has made a positive impact on student achievement.		

Professional Development

Action Step	Person Responsible	Completion Date
Survey teachers and administrators current technology skills and needs for professional development.		
Research professional development opportunities.		
Develop clear goals and a specific implementation plan for providing professional development opportunities based on the needs assessment and the Curriculum component benchmarks and timeline.		
Compile benchmarks and a timeline for implementing the strategies and activities.		
Develop a process to monitor whether the strategies and methodologies utilizing technology are being implemented according to the benchmarks and timeline.		

Infrastructure, Hardware, Technical Support, and Software

Action Step	Person Responsible	Completion Date
Determine the technology hardware, electronic learning resources, networking and telecommunication infrastructure, physical plant modifications, and technical support needed by teachers, students, and administrators to support the activities in the Curriculum and Professional Development components.		
Determine the existing hardware, Internet access, electronic learning resources, infrastructure, and technical support already in place in the Diocesan school that could be used to support the Curriculum and Professional Development components.		
Seek advice and support from experts.		
Develop benchmarks and a timeline for obtaining the needed hardware, infrastructure, learning resources, and technical support required to support the other components.		
Develop a process to monitor whether the benchmarks are being reached within the specified time frame.		

Funding and Budget

Action Step	Person Responsible	Completion Date
Identify all costs associated with implementing each component.		
Identify the current budget for implementing each component.		
Identify established and potential funding sources, present and future.		
Consider options for reducing costs.		
Develop and implement annual budgets for the term of the plan (three to five years.)		
Provide for ongoing technical support.		
Plan for the obsolescence of equipment.		
Establish a feedback loop to monitor and improve progress.		

Monitoring and Evaluation

Action Step	Person Responsible	Completion Date
Review the implementation monitoring process included under each component of the plan.		
Determine how to evaluate the impact of technology on student learning.		
Research and consider monitoring and evaluation tools provided at little or no cost to the Diocese.		
Design a schedule for evaluating the effect of plan implementation while realizing that infusing technology into daily school operations is an evolving process.		
Determine how and when the results of the monitoring process and evaluation will be used.		

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*Complete Evaluation Rubric on Pages 10 - 19. For a plan to be approved, all components must be evaluated at "meets standards" or "exceeds standards" level.

MASTER TEMPLATE GUIDE FOR ARCH/DIOCESAN PLANS FOR SCHOOLS

Listed below are the required components of an arch/diocesan and school tech plan:

A. Title Page

B. Table of Contents

C. School Site Information (School Name/Address, phone, etc.)

D. Tech Committee Membership (List members to include: administrators, teachers, parents)

E. Vision Statement aligned to arch/diocese tech plan; defines vision and goals of technology use in the Catholic school for the next five years

F. Mission Statement aligned to arch/diocese tech plan and defines the mission of technology (who we are, what we will do, and how we will get there) in terms of a technology environment within a Catholic School

G. Curriculum and School Administration Component

1. Utilize a professionally generated needs assessment is used to discern school needs in the following (suggested) areas:
    i. Management and assessment
    ii. Instruction and Instructional Design
    iii. Productivity and Staff Development
    iv. Moral and Ethical Issues
    v. Administrative use and Administration
2. Create and implement goals based on results from site needs assessment
3. Create goals for equity of access
4. Create goals for data, recordkeeping and assessment

H. Professional Development

Create, implement and monitor a technology professional development plan based on assessed teacher competencies. See appendices, *Levels of Proficiencies and Technology Skills* and *Matrix of Professional Teacher Proficiency in Computer Based Technology.*

I. Infrastructure

1. Internal-network design
2. External-internets
3. Presentation
4. Atmosphere Control
5. Space Design
6. Security

J. Technical Support

1. Create a list of technical support personnel and detail maintenance and repair and responsibility as a resource.
2. Evaluate and update list annually.

K. Funding and Budget

1. Annually create budget to support technology and sustain technology use in school.
2. Identify established and potential funding sources for the present and in the future.

L. Monitoring and Evaluation

TECHNOLOGY PLAN RUBRIC
USED FOR EVALUATION OF ARCH/DIOCESE APPROVAL

A. Title Page

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies document and school	Missing or fails to adequately identify school and/or document.	Generic identification of school and document.	Designed cover which includes a graphic image identifying school and document – consistent with school publications and interior content.

B. Table of Contents

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies contents and location of sections within document.	Missing or fails to identify sections and/or location of contents.	Generic identification of contents of document.	Identifies sections and contents of document. Providing hyperlinks where applicable. Graphically designed for consistency, legibility and ease of use.

C. School Site Information

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies school with technology overview information.	Missing or fails to identify school and/or technology information.	Generic; minimal identification of school (name, address, phone, site administrator) and technology coordinator/administrator contact information.	Clearly identifies school with hyperlinks to key personnel, URL, and demographic information. Well-written overview of technology including historical significance at the site relative to the current plan. Graphically designed for consistency, legibility and ease of use.

D. Technology Committee

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies committee.	Missing or fails to adequately identify committee.	Generic identification of committee.	Clearly identifies committee and roles. Includes descriptive narrative of selection criteria and contact information. Graphically designed for consistency, legibility and ease of use.

E. Vision Statement

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Defines the vision and goals of technology use in the Catholic school within the next three to five years.	Missing or fails to identify link to arch/diocesan technology plan. Fails to connect the goals to student learning outcomes. Fails to develop a vision for three to five years.	Vision is reasonable and realistic. Makes links to student instructional and non-instructional outcomes and to staff and administrative outcomes. Extends to a timeline of three to five years.	Vision is clear and specific with broad, comprehensive goals which are aligned with arch/diocesan technology goals. Includes student instructional and non-instructional outcomes and staff and administrative outcomes. Vision is created with input from all stakeholders. Graphically designed for consistency, legibility and ease of use.

F. Mission Statement

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Defines the role of technology within the school.	Missing or fails to identify clear link to vision statement. Not aligned with arch/diocesan technology plan.	Identifies linkage between the vision statement and the curriculum. Realistic to the technology use within the Catholic school.	Clearly articulates technology use in the Catholic school. Integrates well with the school's vision statement, and arch/diocesan vision/mission statements. Graphically designed for consistency, legibility and ease of use.

G. Curriculum and School Administration

i. Needs and Resource Assessment

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies the current needs and resources to facilitate the vision and mission statement.	Missing or did not use a professionally created assessment to measure needs and resources. Did not address criteria areas as specified in the Technology Plan template	Utilizes a professionally created assessment to measure needs and resources. Appropriate constituency groups consulted. Adequately includes the criteria areas within the needs assessment. Some analysis of needs identified. Assess progress of the school in meeting the standards of the arch/diocesan technology plan.	Utilizes a professionally created assessment to measure needs and resources. All stakeholders consulted. Thoroughly includes the criteria areas within the needs assessment. Analyzes data appropriately using data to determine curricular and staff development needs.

ii. Goals and Implementation

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Develop clear goals and a specific implementation plan describing how and when students will acquire technological and informational literacy skills needed to succeed in the classroom and workplace.	Missing or fails to identify technology integration strategies. Merely lists student and/or instructional staff and/or administrator skills. Cursory approach to linking technology to teaching/learning process. Missing or fails to identify AUP and CIPA (CHILDREN'S INTERNET PROTECTION ACT) compliance.	Basic approach to technology integration addressing instructional and non-instructional strategies to meet student-learning outcomes. Identifies strategies for differentiating instruction through technology without specificity. Identifies standards for students, instructional and non-instructional staff. Identify AUP and CIPA (CHILDREN'S INTERNET PROTECTION ACT) compliance.	Identifies strategies to build transparent use of technology in curriculum. Clearly defines measurable outcomes and/or standards using technology to improve teaching and learning. Identifies AUP and CIPA (CHILDREN'S INTERNET PROTECTION ACT) compliance with regularly scheduled monitoring and evaluation. Clearly identifies technology use protocols.

iii. Goals for Equity of Access and Implementation Plan

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Develop clear goals and a specific implementation plan for programs and methods of utilizing technology that ensure appropriate access for all students.	Missing or fails to identify a plan for the equitable use of technology for all students. Merely provides a schedule of computer lab use by classes.	Identifies an implementation plan ensuring technological access for all students. Identifies goals for programs and methods utilizing technology that ensure age-appropriate technology access for all students.	Strategies for equitable access are clearly defined. Implementation plan is monitored to ensure equity for all students. Implementation plan includes parent involvement strategies.

iv. Goals for Data, Record-Keeping and Assessment with Implementation

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies monitoring and evaluation for all elements in the technology plan. Develop clear goals and a specific implementation plan to utilize technology to make student recordkeeping and assessment more efficient and supportive of teachers' efforts to meet each student's academic needs.	Missing or fails to identify monitoring, and evaluation strategies for the technology plan. Missing goals and implementation plan to utilize technology for student recordkeeping.	Identifies monitoring, assessment, and evaluation strategies for some elements in the technology plan. Technology is utilized for student recordkeeping and assessment supporting teachers' efforts to meet student's academic needs in most areas of the curriculum. Data is maintained and updated on a regular basis.	Clearly identifies monitoring, assessment, and evaluation strategies for all elements in the technology plan. Technology is utilized for student recordkeeping and assessment supporting teachers' efforts to meet student's academic needs throughout curricular areas. Data is maintained, evaluated and updated on a regularly scheduled basis. Determine indicators of success that will be used to evaluate whether implementation of the plan have made a positive impact on student achievement.

H. Professional Development

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies clear goals and a specific implementation plan for providing professional development opportunities based on the needs assessment.	Missing or fails to identify needs assessment for professional growth. Missing or identifies only basic technology skills. Missing or fails to identify support system for professional growth. Missing or fails to identify a professional growth plan for all members of the faculty/staff. Missing or fails to identify schedule for continuous and ongoing professional growth.	Surveys teachers' and administrators' current technology skills and needs for professional growth with a credible instrument. Compiles benchmarks and a timeline for implementing the strategies and activities to foster professional growth in technology beyond the basic level of expertise. Provide continuous and ongoing professional development opportunities in technology. Provide support for professional growth and development in technology. Identifies assessment and evaluation linked to professional development.	Surveys teachers' and administrators' current technology skills and needs for professional growth with a credible instrument on an annual basis. Identifies strategies to individualize technology training and classroom integration in a continuous and ongoing basis. Offers a variety of incentives for professional growth in technology. Clearly identifies assessment and evaluation with adequate support, scheduling flexibility, and budget for continuous and ongoing monitoring.

I. Infrastructure: Network, Hardware, Software

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies accurate and complete inventory of hardware and software needed to support the implementation of the plan. Maps the infrastructure. Includes a timeline in which the plan is to be implemented.	Missing or fails to complete an inventory of hardware and software needed to support the plan. Lack of recordkeeping and licensing requirements are not met. Missing or fails to map the infrastructure. Missing or fails to develop a timeline in which the plan is to be implemented.	Completes an assessment to determine site needs. Identifies a technology inventory including hardware, software, and current licensing. Licensing is current. Provides a map of the networking infrastructure currently in place. Identifies a standard for hardware, software and network acquisitions. Compiles a timeline in which to implement the plan.	Completes an assessment to determine site needs and possible site limitations. Clearly identifies a complete technology infrastructure inventory. Licensing is current and a regular schedule for auditing, updating and maintaining licensing is in place. Provides an accurate and detailed map of networking and telecommunications infrastructure to include physical plant modifications needed to implement the plan. Standards for all levels of technology acquisitions are well documented and updated regularly. Acquisitions are aligned to site education standards. Follows a timeline which includes upgrade schedule and plan evaluations.

J. Technical Support

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies strategies for technical maintenance and support.	Missing or fails to identify technical support strategies and guidelines. Missing or fails to address maintenance issues.	Identifies current needs assessment strategies regarding technical support and maintenance. Identifies strategies for basic troubleshooting regarding technology issues. Identifies support system, process, and schedule for maintenance.	Identifies current and on-going needs assessment strategies regarding technical support, assistance and maintenance. Seeks advice and support from experts. Identifies strategies to individualize technology support training to faculty and staff in a continuous and on-going fashion. Clearly identifies support system, process, schedule, access, and protocol for maintenance. Accurate records and documentation of repair and maintenance are accessible and clearly identified. Engages in continuous and on-going monitoring of the technological budget to maintain and implement the school's plan.

K. Funding and Budget

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies costs and potential funding sources for supporting the infrastructure, hardware, technical support, software, and professional development needed to support the technology plan.	Missing or fails to identify costs and potential funding to support the technology plan. No budget or funding exists for technology.	Identifies current needs assessment strategies for all technology funding. Identifies the current budget for implementing each component of the technology plan. Identifies all costs associated with implementing each component of the technology plan. Identifies potential funding to support the components of the technology plan presently and in the future (three to five years).	Identifies current and on-going needs assessment strategies for all technology funding. Clearly and accurately identifies present cost, the current budget and potential funding for the implementation of each component of the technology plan. Identifies schedule for audit and review of budget for technology. Recordkeeping is regularly maintained and data is stored in an assessable location. Considers options for reducing costs and maximizing the utilization of the technology budget. Evidence of continuous and on-going effort to obtain regular as well as alternative funding for technology through grants, partnerships, alumni foundations, federal grants, etc.

L. Monitoring and Evaluation

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies an evaluation process to determine the effect of plan implementation on student achievement. Identifies an evaluative process that enables the school to monitor implementation of the plan so that any necessary mid-course correction can be made.	Missing or fails to identify an evaluation process to determine the effect of plan implementation on student achievement. Missing or fails to identify an evaluative process that allows for mid-course corrections.	Identifies an evaluation process to determine the effect of the technology plan on student achievement. Design a schedule for evaluating the effect of the plan implementation so that adjustments can be made to the plan as deemed necessary. Submit annual reviews of the technology plan to the local arch/diocese.	Identifies an evaluation process to determine the specific effects of the technology plan on student achievement. Identifies areas of the technology plan needing attention to further address student needs and achievement. Design a schedule that regularly evaluates the effect of the plan implementation so that adjustments to the plan can be made in a timely manner. Submit annual reviews of the technology plan to the local arch/diocese within the timelines given.

SECTION I

A. Title Page Rubric

B. Table of Contents Rubric

C. School Site Information Rubric

D. Technology Committee Rubric

E. Vision Statement Rubric

F. Mission Statement Rubric

TECHNOLOGY PLAN RUBRIC USED FOR EVALUATION OF ARCH/DIOCESAN APPROVAL

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E. Vision Statement Rubric

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SECTION II

G. Curriculum and School Administration Rubric

- **i. Needs and Resource Assessment**
- **ii. Goals and Implementation**
- **iii. Goals for Equity of Access and Implementation Plan**
- **iv. Goals for Data, Record-Keeping and Assessment with Implementation**

RESOURCES

- **Technology Needs Assessment**
- **Curriculum and Content Area Standards**
- **Information Literacy**
- **NETS For Students: Achievement Rubric**

G. Curriculum School Administration Component Rubric

i. Needs and Resource Assessment

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies the current needs and resources to facilitate the vision and mission statement.	Missing or did not use a professionally created assessment to measure needs and resources. Did not address criteria areas as specified in the Technology Plan template (See #7 – i. though v.)	Utilizes a professionally created assessment to measure needs and resources. Appropriate constituency groups consulted. Adequately includes the criteria areas within the needs assessment. Some analysis of needs identified. Assess progress of the school in meeting the standards of the arch/diocesan technology plan.	Utilizes a professionally created assessment to measure needs and resources. All stakeholders consulted. Thoroughly includes the criteria areas within the needs assessment. Analyzes data appropriately using data to determine curricular and staff development needs.

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TECHNOLOGY NEEDS ASSESSMENT

This instrument can be used to assess an individual school's present status in integrating applications of information technology into the curriculum or educational management process. This instrument may also be used with school leaders to start serious discussion about future technology activity and planning.

Rating Scale:	**1 (NOT very well)**	2	3	4	**5(VERY effectively)**

Management and Assessment

1. Our school uses technology applications to assess student performance of learner outcomes and Schoolwide Learning Expectations.	1	2	3	4	5
2. Our school uses technology to manage and group students for instruction based upon assessment of student performance of learner outcomes and Schoolwide Learning Expectations.	1	2	3	4	5
3. Our school uses technology to report student progress and performance in accomplishing learner outcomes to parents/guardians/stakeholders of the community/and the broader community.	1	2	3	4	5
4. Our school uses technology in daily operations for the management of student information and records.	1	2	3	4	5

Instruction & Instructional Design

5. Our school uses technology to design and develop individualized educational plans (IEPs) and personalized learning plans (PLPs).	1	2	3	4	5
6. Our school integrates, not relates, the applications of technology, outlined in the Office of Catholic Schools Curriculum Guidelines, into all course and/or grade level student outcomes.	1	2	3	4	5
7. Our school uses technology to manage print and non-print information resources used to provide instruction based upon student outcomes. Our system has a plan to help share information and resources among all schools in our diocese.	1	2	3	4	5
8. Our school has provided easy access to and appropriate amounts of information technology for student to use in accomplishing learner outcomes.	1	2	3	4	5
9. Our school has developed an integrated information technology curriculum based upon identified exit outcomes. This means that all students make effective, routine use of computer graphics, hypermedia, desktop presenting, spreadsheets, databases, video production, word processing, desktop publishing, and other applications of technology that increase a student's personal power and productivity in order to live and grow in the Schoolwide Learning Expectations.	1	2	3	4	5
10. Our school has studied and applied the effective uses of distance learning technology for the delivery of instruction and has implemented it when appropriate.	1	2	3	4	5
11. Our school integrated and uses technology applications as more than electronic workbooks in the instructional process. Our use of CAI (computer aided instruction) is solidly based upon research and is used as a supplement to conventional instruction to help students master basic skills.	1	2	3	4	5
12. Our school provides students and teacher access to data available through computerized information retrieval systems and on-line databases.	1	2	3	4	5
13. Our school recognizes that information technology can be helpful to special needs	1	2	3	4	5

children and to children at risk (both ends of the spectrum). We have a commitment to provide appropriate hardware.					
14. Our school recognizes that computers can contribute to and/or help alleviate some equity issues. We have made a substantial effort to ensure equity in technology access and types of uses. For example, we have been very careful to avoid using drill and practice software mainly for lower socioeconomic status homes, while using more sophisticated applications mainly with higher socioeconomic status students.	1	2	3	4	5

Productivity and Staff Development

15. Our school has developed an information technology plan. The plan is based upon learner outcomes and Schoolwide Learning Expectations, as well as our system's vision of our educational future.	1	2	3	4	5
16. Our school has developed a technology program for teachers, which places the use of technology to empower teachers. Teachers have good access to technology and software for their professional use.	1	2	3	4	5
17. Our school has a well-qualified media/technology coordinator who provides on-site support when there is a technical problem or question. This technology specialist has a leadership role in shaping the use of information technology I our school and is a member of the Technology Committee.	1	2	3	4	5
18. Our school/cluster/diocese encourages and support staff development, workshops, and professional development activities in information technology. Good incentives have been provided to encourage teachers to increase knowledge and skill in making effective use of computers.	1	2	3	4	5
19. Our school provides technology purchases based upon requests and innovative funding proposals developed by teachers. We have access to any instructional technology needed to design to provide instruction based upon learner outcomes and Schoolwide Learning Expectations.	1	2	3	4	5

Moral and Ethical Issues

20. Our school teaches computerized technology in an environment that models and teaches values and ethical principles	1	2	3	4	5
21. Our school has developed policies related to the ethical uses of computerized technology.	1	2	3	4	5
22. Our school makes substantial effort to ensure gender equity in the use of computerized technology.	1	2	3	4	5
23. Our school makes substantial effort to ensure cultural/racial equity in the use of computerized technology.	1	2	3	4	5

Administrative Use and Application

24. Our school requires that all staff use and model the effective and appropriate use of technology.	1	2	3	4	5
25. Our school has integrated the effective use of technology into all administrative and managerial functions.	1	2	3	4	5
26. Our school has a living plan for integrating the appropriate use of technology into all aspects of our organization.	1	2	3	4	5

When completed with the survey, evaluate the results of the survey. These findings should serve as a foundation for establishing a technology plan for your program.

Points to consider:
Arrange responses according to individual scores.

Survey points scoring in the 1 or 2 range need to be looked at first; if applicable, long and short range plans should be established to work on these areas.

Survey points scoring 3,4, and 5 range need to be evaluated for the next steps and these steps need to be incorporated into your long range plan (for the Office of Catholic Schools and WCEA/WASC).

(This survey was adapted from CACE Technology Guide, 1996)

CURRICULUM AND CONTENT AREA STANDARDS

NETS FOR ADMINISTRATORS

I. **Leadership and Vision**

Educational leaders inspire a shared vision for comprehensive integration of technology and foster an environment and culture conducive to the realization of that vision. Educational leaders:

A. Facilitate the shared development by all stakeholders of a vision for technology use and widely communicate that vision.

B. Maintain an inclusive and cohesive process to develop, implement, and monitor a dynamic, long-range and systemic technology plan to achieve the vision.

C. Foster and nurture a culture of responsible risk-taking and advocate policies promoting continuous innovation with technology.

D. Use data in making leadership decisions.

E. Advocate for research-based effective practices in use of technology.

F. Advocate on the state and national levels for policies, programs, and funding opportunities that support implementation of the Diocesan technology plan.

II. **Learning and Teaching**

Educational leaders ensure that curricular design, instructional strategies, and learning environments integrate appropriate technologies to maximize learning and teaching. Educational leaders:

A. Identify use, evaluate, and promote appropriate technologies to enhance and support instruction and standards-based curriculum leading to high levels of student achievement.

B. Facilitate and support collaborative technology-enriched learning environments conducive to innovation for improved learning.

C. Provide for learner-centered environments that use technology to meet the individual and diverse needs of learners.

D. Facilitate the use of technologies to support and enhance instructional methods that develop higher-level thinking, decision-making, and problem-solving skills.

E. Provide for and ensure that faculty and staff take advantage of quality professional learning opportunities for improved learning and teaching with technology.

III. **Productivity and Professional Practice**

Educational leaders apply technology to enhance their professional practice and to increase their own productivity and that of other. Educational leaders:

A. Model the routine, intentional, and effective use of technology.

B. Employ technology for communication and collaboration among colleagues, staff, parents, students, and the larger community.

C. Create and participate in learning communities that stimulate, nurture, and support faculty and staff in using technology for improved productivity.

D. Engage in sustained, job-related professional learning using technology resources.

E. Maintain awareness of emerging technologies and their potential uses in education.

F. Use technology to advance organizational improvement.

IV. **Support, Management, and Operations.**

Educational leaders ensure the integration of technology to support productive systems for learning and administration. Educational leaders:

A. Develop implement and monitor policies and guidelines to ensure compatibility of technologies.

B. Implement and use integrated technology-based management and operations systems.

C. Allocate financial and human resources to ensure complete and sustained implementation of the technology plan.

D. Integrate strategic plans, technology plans, and other improvement plans and policies to align efforts and leverage resources.

E. Implement procedures to drive continuous improvement of technology systems and to support technology replacement cycles.

V. Assessment and Evaluation.

Educational leaders use technology to plan and implement comprehensive systems of effective assessment and evaluation. Educational leaders:

A. Use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.

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

C. Assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.

D. Use technology to assess, evaluate, and manage administrative and operational systems.

VI. **Social, Legal, and Ethical issues.**

Educational leaders understand the social, legal, and ethical issues related to technology and model responsible decision-making related to these issues. Educational leaders:

A. Ensure equity of access to technology resources that enable and empower all learners and educators.

B. Identify, communicate, model and enforce social, legal, and ethical practices to promote responsible use of technology.

C. Promote and enforce privacy, security, and online safety related to the use of technology.

D. Promote and enforce environmentally safe and healthy practices in the use of technology.

E. Participate in the development of policies that clearly enforce copyright law and assign ownership of intellectual property developed with Diocesan resources.

SUPERINTENDENT

Superintendents who effectively lead the integration of technology typically perform the following tasks. Effective superintendents:

I. **Leadership and Vision**

A. Assure that the vision for use of technology is congruent with the overall Diocesan vision.

B. Engage representatives from all stakeholder groups in the development, implementation, and ongoing assessment of a Diocesan technology plan consistent with the Diocesan improvement plan.

C. Advocate to the school community, the media, and the community at large for effective technology use in schools for improved student learning and efficiency of operations.

II. **Learning and Teaching**

A. Provide equitable access for students and staff to technologies that facilitate productivity and enhance learning.

B. Communicate expectations consistently for the use of technology to increase student achievement.

C. Ensure that budget priorities reflect a focus on technology and its relationships to enhanced learning and teaching.

III. **Productivity and Professional Practice**

A. Establish a culture that encourages responsible risk-taking with technology while requiring accountability for results.

B. Maintain an emphasis on technology fluency among staff across the Diocese and provide staff development opportunities to support high expectations.

C. Use current information tools and systems for communication, management of schedules and resources, performance assessment, and professional learning.

IV. **Support, Management, and Operations**

A. Provide adequate staffing and other resources to support technology infrastructure and integration across the Diocese.

B. Ensure, through collaboration with Diocese and campus leadership, alignment of technology efforts with the overall Diocesan improvement efforts in instructional management and Diocesan operations.

V. **Assessment and Evaluation**

A. Engage administrators in using Diocesan-wide and disaggregated data to identify improvement targets at the campus and program levels.

B. Establish evaluation procedures for administrators that assess demonstrated growth toward achieving technology standards for school administrators.

VI. **Social, Legal, and Ethical issues**

A. Ensure that every student in the Diocese engages in technology-rich learning experiences.

B. Recommend policies and procedures that protect the security and integrity of the Diocesan infrastructure and the data resident on it.

C. Develop policies and procedures that protect the rights and confidentiality of students and staff.

PRINCIPAL

Principals who effectively lead integration of technology typically perform the following tasks. Effective principals:

I. **Leadership and Vision**

A. Participate in an inclusive Diocesan process through which stakeholders formulate a shared vision that clearly defines expectations for technology use.

B. Develop a collaborative, technology-rich school improvement plan, grounded in research and aligned with the Diocesan strategic plan.

C. Promote highly effective practices in technology integration among faculty and other staff.

II. **Learning and Teaching**

A. Assist teachers in using technology to access analyze, and interpret student performance data, and in using results to appropriately design, assess, and modify student instruction.

B. Collaboratively design, implement, support, and participate in professional development for all instructional staff that institutionalizes effective integration of technology for improved student learning.

III. **Productivity and Professional Practice**

A. Use current technology-based management systems to access and maintain personnel and student records.

B. Use a variety of media and formats, including telecommunications and the school website, to communicate, interact, and collaborate with peers, experts, and other education stakeholders.

IV. **Support, Management, and Operations**

A. Provide campus-wide staff development for sharing work and resources across commonly used formats and platforms.

B. Allocate campus discretionary funds and other resources to advance implementation of the technology plan.

C. Advocate for adequate timely and high-quality technology support services.

V. **Assessment and Evaluation**

A. Promote and model the use of technology to access, analyze, and interpret campus data to focus efforts for improving student learning and productivity.

B. Implement evaluation procedures for teachers that assess individual growth toward established technology standards and guide professional development planning.

C. Include effectiveness of technology use in the learning and teaching process as one criterion in assessing performance of instructional staff.

VI. **Social, Legal, and Ethical Issues**

A. Secure and allocate technology resources to enable teachers to better meet the needs of all learners on campus

B. Adhere to and enforce among staff and students the Diocesan acceptable use policy and other policies and procedures related to security, copyright, and technology use.

C. Participate in the development of facility plans that support and focus on health and environmentally safe practices related to the use of technology.

THE ISTE
NATIONAL EDUCATIONAL TECHNOLOGY STANDARDS (NETS.S) AND PERFORMANCE INDICATORS FOR STUDENTS[1]

1. **Creativity and Innovation**
   Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:
   a. apply existing knowledge to generate new ideas, products or processes.
   b. create original works as a means of personal or group expression.
   c. use models and simulations to explore complex systems and issues.
   d. identify trends and forecast possibilities

2. **Communication and Collaboration**
   Students use digital media and environments to communicate and work collaboratively, including at a distance to support individual learning and contribute to the learning of 0thers. Students:
   a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
   b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
   c. develop cultural understanding and global awareness by engaging with learners of other cultures.
   d. contribute to project teams to produce original works or solve problems

3. **Research and Information Fluency**
   Students apply digital tools to gather, evaluate, and use information. Students:
   a. plan strategies to guide inquiry.
   b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
   c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
   d. process data and report results.

4. **Critical Thinking, Problem Solving, and Decision Making**
   Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:
   a. identify and define authentic problems and significant questions for investigation.
   b. plan and manage activities to develop a solution or complete a project.
   c. collect and analyze data to identify solutions and/or make informed decisions.
   d. use multiple processes and diverse perspectives to explore alternative solutions.

5. **Digital Citizenship**
   Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students;
   a. advocate and practice safe, legal, and responsible use of information and technology.
   b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.

[1] National Educational Technology Standards for Students, September 2007

c. demonstrate personal responsibility for lifelong learning.
d. exhibit leadership for digital citizenship.

6. **Technology Operations and Concepts**

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

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

PROFILES FOR TECHNOLOGY (ICT) LITERATE STUDENTS[2]

A major component of the NETS Project is the development of a general set of profiles describing technology (ICT) literate students at key developmental points in their precollege education. These profiles are based on ISTE'S core belief that all students must have regular opportunities to use technology to develop skills that encourage personal productivity, creativity, critical thinking, and collaboration in the classroom and in daily life. Coupled with the standards, the profiles provide a set of examples for preparing students to be lifelong learners and contributing members of a global society.

The profiles highlight a few important types of learning activities in which students might engage as the new NETS*S are implemented. These examples are provided in an effort to bring the standards to life and demonstrate the variety of activities possible. Space limitations and the realities of the constantly evolving learning and technology landscapes make it impossible to provide a comprehensive collection of examples in this document, and consequently, students and teachers should not feel constrained by this resource. Similarly, because this represents only a sampling of illuminating possibilities, the profiles cannot be considered a comprehensive curriculum, or even a minimally adequate one, for achieving mastery of the rich revised National Educational Technology Standards for Students. Educators are encouraged to stay connected to the ISTE NETS Refresh Project and contribute their best examples to expand this resource.

The profiles are divided into the following four grade ranges. Because grade-level designations vary in different countries, age ranges are also provided.

- Grades PK-2 (ages 4-8)
- Grades 3-5 (ages 8-11)
- Grade 6-8 (ages 11-14)
- Grades 9-12 (ages 12-18)

It's important to remember that the profiles are indicators of achievement at certain stages in primary, elementary, and secondary education, and that success in meeting the indicators is predicated on students having regular access to a variety of technology tools. Skills are introduced and reinforced over multiple grade levels before mastery is achieved. If access is an issue, profile indicators will need to be adapted to fit local needs.

The standards and profiles are based on input and feedback provided by instructional technology experts and educators from around the world, including classroom teachers, administrators, teacher educators, and curriculum specialists. Students were also given opportunities to provide input and feedback. In addition, these refreshed documents reflect information collected from professional literature.

[2] National Educational Technology Standards for Students
Excepted from NETS for Students Booklet

GRADES PK-2 (AGES 4 – 8)[3]

The following experiences with technology and digital resources are examples of learning activities in which students might engage during PK-Grade 2 (ages 4-8):

1. Illustrate and communicate original ideas and stories using digital tools and media-rich resources. (1,2)
2. Identify, research, and collect data on an environmental issue using digital resources and propose a developmentally appropriate solution. (1,3,4)
3. Engage in learning activities with learners from multiple cultures through e-mail and other electronic means. (2,6)
4. In a collaborative work group, use a variety of technologies to produce a digital presentation or product in a curriculum area. (1,2,6)
5. Find and evaluate information related to a current or historical person or event using digital resources. (3)
6. Use simulations and graphical organizers to explore and depict patterns of growth such as the life cycles of plants and animals. (1,3,4)
7. Demonstrate the safe and cooperative use of technology. (5)
8. Independently apply digital tools and resources to address a variety of tasks and problems. (4,6)
9. Communicate about technology using developmentally appropriate and accurate terminology. (6)
10. Demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites. (6)

The numbers in parentheses after each item identify the standards (1-6) most closely linked to the activity described. Each activity may relate to one indicator, to multiple indicators, or to the overall standards referenced.

The categories are:

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Fluency
4. Critical Thinking, Problem Solving and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts

[3] National Educational Technology Standards for Students
Excerpted from NETS for Students Booklet

GRADES 3-5 (AGES 8-11)[4]

The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 3-5 (ages 8-11):

1. Produce a media-rich digital story about a significant local event based on first-person interviews. (1,2,3,4)
2. Use digital-imaging technology to modify or create works fo art for use in a digital presentation. (1,2,6)
3. Recognize bias in digital resources while researching an environmental issue with guidance from the teacher. (3,4)
4. Select and apply digital tools to collect, organize, and analyze data to evaluate theories or test hypotheses. (3,4,6)
5. Identify and investigate a global issue and generate possible solutions using digital tools and resources. (3,4)
6. Conduct science experiments using digital instruments and measurement devices. (4,6)
7. Conceptualize, guide, and manage individual or group learning projects using digital planning tools with teacher support. (4,6)
8. Practice injury prevention by applying a variety of ergonomic strategies when using technology. (5)
9. Debate the effect of existing and emerging technologies on individuals, society, and the global community. (5,6)
10. Apply previous knowledge of digital technology operations to analyze and solve current hardware and software problems. (4,6)

The numbers in parentheses after each item identify the standards (1-6) most closely linked to the activity described. Each activity may relate to one indicator, to multiple indicators, or to the overall standards referenced.

The categories are:

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Fluency
4. Critical Thinking, Problem Solving and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts

[4] National Educational Technology Standards for Students
Excerpted from NETS for Students Booklet

GRADES 6-8 (AGES 11-14)[5]

The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 6-8 (ages 11-14):

1. Describe and illustrate a content-related concept or process using a model, simulation, or concept-mapping software. (1,2)
2. Create original animations or videos documenting school, community, or local events. (1,2,6)
3. Gather data, examine patterns, and apply information for decision making using digital tools and resources. (1,4)
4. Participate in a cooperative learning project in an online learning community. (2)
5. Evaluate digital resources to determine the credibility of the author and publisher and the timeliness and accuracy of the content. (3)
6. Employ data-collection technology such as probes, handheld devices, and geographic mapping systems to gather, view, analyze, and report results for content-related problems. (3,4,6)
7. Select and use the appropriate tools and digital resources to accomplish a variety of tasks and to solve problems. (3,4,6)
8. Use collaborative electronic authoring tools to explore common curriculum content from multicultural perspectives with other learners. (2,3,4,5)
9. Integrate a variety of file types to create and illustrate a document or presentation. (1,6)
10. Independently develop and apply strategies for identifying and solving routine hardware and software problems. (4,6)

The numbers in parentheses after each item identify the standards (1-6) most closely linked to the activity described. Each activity may relate to one indicator, to multiple indicators, or to the overall standards referenced.

The categories are:

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Fluency
4. Critical Thinking, Problem Solving and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts

[5] National Educational Technology Standards for Students
Excerpted from NETS for Students Booklet

GRADES 6-8 (AGES 11-14)[6]

The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 6-8 (ages 11-14):

1. Describe and illustrate a content-related concept or process using a model, simulation, or concept-mapping software. (1,2)
2. Create original animations or videos documenting school, community, or local events. (1,2,6)
3. Gather data, examine patterns, and apply information for decision making using digital tools and resources. (1,4)
4. Participate in a cooperative learning project in an online learning community. (2)
5. Evaluate digital resources to determine the credibility of the author and publisher and the timeliness and accuracy of the content. (3)
6. Employ data-collection technology such as probes, handheld devices, and geographic mapping systems to gather, view, analyze, and report results for content-related problems. (3,4,6)
7. Select and use the appropriate tools and digital resources to accomplish a variety of tasks and to solve problems. (3,4,6)
8. Use collaborative electronic authoring tools to explore common curriculum content from multicultural perspectives with other learners. (2,3,4,5)
9. Integrate a variety of file types to create and illustrate a document or presentation. (1,6)
10. Independently develop and apply strategies for identifying and solivng routine hardware and software problems. (4,6)

The numbers in parentheses after each item identify the standards (1-6) most closely linked to the activity described. Each activity may relate to one indicator, to multiple indicators, or to the overall standards referenced.

The categories are:

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Fluency
4. Critical Thinking, Problem Solving and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts

[6] National Educational Technology Standards for Students
Excerpted from NETS for Students Booklet

GRADES 9-12 (AGES 14-18)[7]

The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 9-12 (ages 14-18):

1. Describe, develop, and test a digital learning game to demonstrate knowledge and skills related to curriculum content. (1,4)
2. Create and publish an online art gallery with examples and commentary that demonstrate an understanding of different historical periods, cultures, and countries. (1,2)
3. Select digital tools or resources to use for real-world task and justify the selection based on their efficiency and effectiveness. (3,6)
4. Employee curriculum-specific simulations to practice critical-thinking processes. (1,4)
5. Identify a complex global issue, develop a systematic plan of investigation, and present innovative sustainable solutions. (1,2,3,4)
6. Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs. (4,5,6)
7. Design a Web site that meets accessibility requirements. (1,5)
8. Model legal and ethical behaviors when using information and technology by properly selecting, acquiring, and citing resources. (3,5)
9. Create media-rich presentations for other students on the appropriate and ethical use of digital tools and resources. (1,5)
10. Configure and troubleshoot hardware, software, and network systems to optimize their use for learning and productivity. (4,6)

The numbers in parentheses after each item identify the standards (1-6) most closely linked to the activity described. Each activity may relate to one indicator, to multiple indicators, or to the overall standards referenced.

The categories are:

1. Creativity and Innovation
2. Communication and Collaboration
3. Research and Information Fluency
4. Critical Thinking, Problem Solving and Decision Making
5. Digital Citizenship
6. Technology Operations and Concepts

[7] National Educational Technology Standards for Students
Excerpted from NETS for Students Booklet

ESSENTIAL CONDITIONS[8]

NECESSARY CONDITIONS TO EFFECTIVELY LEVERAGE TECHNOLOGY FOR LEARNING

Shared Vision	Proactive leadership in developing a shared vision for educational technology among school personnel, students, parents, and the community.
Implementation Planning	A systemic plan aligned with a shared vision for school effectiveness and student learning through the infusion of ICT and digital learning resources
Consistent and Adequate Funding	Ongoing funding to support technology infrastructure, personnel, digital resources, and staff development
Equitable Access	Robust and reliable access to current and emerging technologies and digital resources, with connectivity for all students, teachers, staff, and school leaders.
Skilled Personnel	Educators and support staff skilled in the use of ICT appropriate for their job responsibilities
Ongoing Professional Learning	Technology-related professional learning plans and opportunities with dedicated time to practice and share ideas
Technical Support	Consistent and reliable assistance for maintaining, renewing, and using ICT and digital resources
Curriculum Framework	Content standards and related digital curriculum resources
Student-Centered Learning	Use of ICT to facilitate engaging approaches to learning
Assessment and Evaluation	Continuous assessment, both of learning and for learning and evaluation of the use of ICT and digital resources
Engaged Communities	Partnerships and collaboration within the community to support and fund the use of ICT and digital resources
Support Policies	Policies, financial plans, accountability measures, and incentive structures to support the use of ICT in learning and in diocesan and school operations
Supportive External Context	Policies and initiatives at the national, regional, and local levels to support schools in the effective implementation of technology for achieving curriculum and technology (ICT) standards

[8] National Educational Technology Standards for Students

INFORMATION LITERACY

Information Literacy was taken from the California State Standards. The California content standard integrates technology throughout the curriculum. The teaching and student use of technology should not be an isolate skill, but used as a tool which is integrated in all content areas.

There is no shortage of information in this Information Age. People are faced with diverse, abundant information choices—in their academic studies, in the workplace, and in their personal lives. Information is available through libraries, community resources, special-interest organizations, the media, and the Internet. Increasingly, information comes in unfiltered, unedited formats, raising questions about its authenticity, validity, and reliability. The uncertain quality and expanding quantity of information pose large challenges for society. The sheer abundance of information will not in itself create a more informed citizenry without a complementary cluster of abilities necessary to use information effectively.

This unprecedented deluge of information, combined with rapid developments in technology for storing, organizing, and accessing information, has led to the emergence of a new type of literacy—information literacy. To be information-literate, "A person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information."[9]

An information-literate person is one who:

- Recognizes that accurate and complete information is the basis for intelligent decision making
- Recognizes the need for information
- Formulates questions based on information needs
- Identifies potential sources of information
- Develops successful strategies to search for information
- Accesses many sources of information, including computer-based and other technologies
- Evaluates information
- Organizes information for practical application
- Integrates new information into an existing body of knowledge
- Uses information in critical thinking and problem solving[10]

Information literacy is not a subject unto itself. It crosses all disciplines, learning environments, and levels of education. The school library is a natural partner in the integration of information literacy because it, too, crosses all disciplines and levels. The California content standards provide a structure for students to learn, apply, and practice information literacy. While mastering content, students extend their investigations, become more self-directed, and assume greater control over their own learning. Students who are effective users of information and ideas are equipped to be learners for life. Ultimately, information-literate students are those who have learned *how* to learn while learning the *content* as defined by the standards.

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[9] *American Library Association Presidential Committee on Information Literacy.* Chicago: American Library Association, 1989

[10] Christine S. Doyle, *Information Literacy in an Information Society: A Concept for the Information Age.* Syracuse, New York: ERIC Clearinghouse on Information and Technology, 1997

Information literacy skills are embedded in the *English-Language Arts Content Standards* adopted by the State Board of Education. Selected standards pertaining to information literacy are shown in the following table.

Grade	Strand	English-Language Arts Content Standard
K	Reading	1.3 Understand that printed materials provide information
1	Listening and Speaking	1.2 Ask questions for clarification and understanding.
2	Writing	1.1 Group related ideas and maintain a consistent focus. 1.3 Understand the purposes of various reference materials (e.g., dictionary, thesaurus, atlas)
3	Reading	2.1 Use titles, tables of contents, chapter headings, glossaries, and indexes to locate information in text. 2.6 Extract appropriate and significant information from the test, including problems and solutions
	Writing	1.3 Understand the structure and organization of various reference materials (e. g., dictionary, thesaurus, atlas, encyclopedia)
4	Reading	2.4 Evaluate new information and hypotheses by testing them against known information and ideas.
	Writing	1.5 Quote or paraphrase information sources, citing them appropriately. 1.6 Locate information in reference texts by using organizational features (e. g., prefaces, and appendixes). 1.7 Use various reference materials (e. g., dictionary, thesaurus, card catalog, encyclopedia, online information) as an aid to writing 1.8 Understand the organization of almanacs, newspapers, and periodicals and how to use those print materials.
5	Reading	2.1 Understand how text features (e. g., format, graphics, sequence, diagrams, illustrations, charts, and maps) make information accessible and usable. 2.3 Discern main ideas and concepts presented in texts, identifying and assessing evidence that supports those ideas.
	Writing	1.3 Use organizational features of printed test (e. g., citations, end notes, bibliographic references) to locate relevant information.
6	Reading	2.1 Identify the structural features of popular media (e. g., newspapers, magazines, online information) and use the features to obtain information
	Writing	1.4 Use organizational features of electronic test (e. g., bulletin boards, databases, keyword searches, e-mail addresses) to locate information 2.3 Write research reports: a. Pose relevant questions with a scope narrow enough to be

Grade	Strand	English-Language Arts Content Standard
		thoroughly covered. b. Support the main idea or ideas with facts, details, examples, and explanation from multiple authoritative sources (e.g., speakers, periodicals, online information searches) c. Include a bibliography.
7	Reading	2.2 Locate information by using a variety of consumer, workplace, and public documents. 2.6 Assess the adequacy, accuracy, and appropriateness of the author's evidence to support claims and assertions, noting instances of bias and stereotyping.
	Writing	1.4 Identify topics; ask and evaluate questions; and develop ideas leading to inquiry, investigation, and research. 1.5 Give credit for both quoted and paraphrased information in a bibliography by using a consistent and sanctioned format and methodology for citations 2.3 Write research reports: a. Pose relevant and tightly drawn questions about the topic. b. Convey clear and accurate perspectives on the subject. c. Include evidence compiled through the formal research process (e. g., use of a card catalog, *Reader's Guide to Periodical Literature*, a computer catalog, magazines, newspapers, dictionaries).
8	Reading	2.1 Compare and contrast the features and elements of consumer materials to gain meaning from documents (e. g., warranties, contacts, product information, and instruction manuals). 2.6 Use information from a variety of consumer, workplace, and public documents to explain a situation or decision and to solve a problem.
	Writing	1.4 Plan and conduct multiple-step information searches by using computer networks and modems. 1.5 Achieve an effective balance between researched information and original ideas. 2.3 Write research reports a. Define a thesis b. Record important ideas, concepts, and direct quotations from significant information sources and paraphrase and summarize all perspectives on the topic, as appropriate. c. Use a variety of primary and secondary sources and distinguish the nature and value of each. d. Organize and display information on charts, maps and graphs.
9 and 10	Reading	2.1 Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.

Grade	Strand	English-Language Arts Content Standard
	Writing	1.3 Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.
		1.4 Develop the main ideas within the body of the composition through supporting evidence (e. g., scenarios, commonly held beliefs, hypotheses, and definitions).
		1.5 Synthesize information from multiple sources and identify complexities and discrepancies in the information and the difference perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents).
		1.6 Integrate quotations and citations into a written text while maintaining the flow of ideas.
		1.7 Use appropriate conventions for documentation in the test, notes, and bibliographies by adhering to those in style manuals (e. g., *Modern Language Association Handbook, The Chicago Manual of Style*).
	Speaking	2.2 Delivery expository presentations.
11 and 12	Reading	2.3 Verify and clarify facts presented in other types of expository texts by using a variety of consumer, workplace and public documents.
		2.6 Critique the power, validity, and truthfulness of arguments set forth in public documents; their appeal to both friendly and hostile audiences; and the extent to which the arguments anticipate and address reader concerns and counterclaims (e. g., appeal to reason, to authority, to pathos and emotion).
		1.6 Develop presentations by using clear research questions and creative and critical research strategies (e.g., field studies, oral histories, interviews, experiments, electronic sources).
	Writing	2.4c Explain the perceived reason or reasons for the similarities and differences in historical records with information derived from primary and secondary sources to support or enhance the presentation.

Information literacy skills are also embedded in the *History – Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve (2000).*

Students in kindergarten through grade five demonstrate the following skills:

1. Students differentiate between primary and secondary sources.
2. Students pose relevant questions about events they encounter in historical documents, eyewitness accounts, oral histories, letters, diaries, artifacts, photographs, maps, artworks and architecture.
3. Students distinguish fact from fiction by comparing documentary sources on historical figures and events with fictionalized characters and events.

Standards pertaining to information literacy as they appear in the *History – Social Science Content Standards* for kindergarten through grade five are shown in the following table:

Grade	History – Social Science Content Standard
K	K.4.1 Determine the relative locations of objects using the terms near / far, left / right, behind / in front.
1	1.5.3 Compare the beliefs, customs, ceremonies, traditions, and social practices of the varied cultures, drawing from folklore.
2	2.1.2 Compare and contrast their daily lives with those of their parents, grandparents, and/or guardians.
3	3.3.1 Research the explorers who visited here, the newcomers who settled here, and the people who continue to come to the region, including their cultural and religious traditions and contributions.
4	4.3.3 Analyze the effects of the Gold Rush on settlements, daily life, politics and the physical environment (e.g., using biographies of John Sutter, Mariono Guadalupe Vallejo, and Louise Clapp). 4.4.9 Analyze the impact of twentieth-century Californians on the nation's artistic and cultural development, including the rise of the entertainment industry (e.g., Louis B. Meyer, Walt Disney, John Steinbeck, Ansel Adams, Dorothea Lange, and John Wayne).
5	5.2.2 Explain the aims, obstacles, and accomplishments of the explorers, sponsors, and leaders of key European expeditions and the reasons Europeans chose to explore and colonize the world.

Students in grades six through eight demonstrate the following skills:

1. Students frame questions that can be answered by historical study and research.
2. Students distinguish fact from opinion in historical narratives and stories.
3. Students distinguish relevant from irrelevant information, essential from incidental information, and verifiable from unverifiable information in historical narratives and stories.
4. Students assess the credibility of primary and secondary sources and draw sound conclusions from them.
5. Students detect the different historical pints of view on historical events and determine the context in which the historical statements were made (the questions asked, sources used, author's perspectives).

Standards pertaining to information literacy as they appear in the *History-Social Science Content Standards* for grades six through eight are shown in the following table.

Grade	History – Social Science Content Standard
6	6.1 Students describe what is known through archaeological studies of the early physical and cultural development of humankind from the Paleolithic era to the agricultural revolution. 6.6 Students analyze the geographic, political, economic, religious, and social structures of the early civilizations of China.
7	7.6 Students analyze the geographic, political, economic, religious, and social structures of the civilizations of Medieval Europe. 7.7 Students compare and contrast the geographic, political, economic, religious and social

Grade	History – Social Science Content Standard
	structures of the Meso-American and Andean civilizations.
8	8.2 Students analyze the political principles underlying the U. S. Constitution and compare the enumerated and implied powers of the federal government. 8.3 Students understand the foundation of the American political system and the ways in which citizens participate in it.

Students in grades nine through twelve demonstrate the following skills:

1. Students distinguish valid arguments from fallacious arguments in historical interpretations.
2. Students identify bias and prejudice in historical interpretations.
3. Students evaluate major debates among historians concerning alternative interpretations of the past, including an analysis of authors' use of evidence and the distinctions between sound generalizations and misleading oversimplifications.
4. Students construct and test hypotheses; collect, evaluate, and employ information from multiple primary and secondary sources; and apply it in oral and written presentations.

Additional standards pertaining to information literacy appear in the *History – Social Science Content Standards* for grades nine through twelve:

Grade	History – Social Science Content Standard
10	10.1 Students relate the moral and ethical principles in ancient Greek and Roman philosophy, in Judaism, and in Christianity to the development of Western political thought. 10.4 Students analyze patterns of global change in the era of New Imperialism in at least two of the following regions or countries: Africa, Southeast Asia, China, India, Latin America, and the Philippines.
11	11.3 Students analyze the role religion played in the founding of America, its lasting moral, social, and political impacts, and issues regarding religious liberty. 11.4 Students trace the rise of the United States to its role as a world power in the twentieth century.
12	12.1 Students explain the fundamental principles and moral values of American democracy as expressed in the U. S. Constitution and other essential documents of American democracy. 12.3 Students evaluate and take and defend positions on what the fundamental values and principles of civil society are (i.e., the autonomous sphere of voluntary personal, social and economic relations that are not part of government), their interdependence, and the meaning and importance of those values and principles for a free society.

NETS FOR STUDENTS: ACHIEVEMENT RUBRIC

Purpose: This version of the NETS for Students: Achievement Rubric is available online for educational technology professionals to review and provide feedback to the developers.

More Information: If you have questions about the rubric, please contact the developers at netsrubric@learningpt.org

NETS for Students: Achievement Rubric Grades PK – 12				
NETS for Students	**Proficient by end of Grade 2**	**Proficient by end of Grade 5**	**Proficient by end of Grade 8**	**Proficient by end of Grade 12**
1. Basic operations and concepts **a. Students demonstrate a sound understanding of the nature and operation of technology systems. (nature and operations.**	1. Students **describe** how to use basic input devices (e. g., keyboard fingering and mouse or track-pad manipulation), output devices (e.g., monitor and printer use), and software resources (e. g., diskette, CD-ROM use). 2. Students **name** common technology found in homes (e. g., VCRs, tape or digital recorder, CD player, digital still and video cameras, telephones, radios). 3. Students **identify** functions represented by symbols and icons commonly found in application programs (e. g., font, size, bold, underline, alignment, color of type). 4. Student**s know how to use** correct sitting, hand, arm, and fingering positions to type complete sentences (including shift for capital letters, space bar for spacing, and punctuation keys). 5. Students **discuss** how to properly care for and use software media (e. g., mini DV tapes, videotapes, audio tapes)	1. Students **know how to use** basic input and output devices (including adaptive devices as needed: **access** network resources (e. g. printers, fileservers); and **use** common peripherals (e. g., scanners, digital probes, digital cameras, video projectors). 2. Students **recognize, discuss, and visually represent** ways technology has changed life and work at school and in the home, community, business, industry, and government over the past three decades. 3. Students **identify and know how to use** Menu options in application programs to develop text graphic spreadsheet and Web documents; save, print, format, and add multimedia features; store, access, and manage files; and use dictionary, thesaurus and spelling and grammar tools. 4. **Know** proper keyboarding position and technique to touch type using the correct hands for alphabetic, numeric, and special purpose keys (arrows, escape, backspace, delete, caps lock, and control): and **know how to use** these keys and the Edit Menu items to correct errors in a document 5. Students **identify** characteristics suggesting that the computer needs upgraded system or application software, virus detection software or spam defense software to protect the	1. Students **recognize** hardware and software components used to provide access to network resources and **know** how common peripherals (e. g., scanners, digital cameras, video projectors) are accessed, controlled, connected, and used effectively and efficiently. 2. Students **know how to evaluate, select and use** appropriate technology tools and information resources to design, plan, develop, and communicate content information appropriately, addressing the target audience and providing accurate citations for sources. 3. Students **know how to identify** appropriate file formats for a variety of applications and **apply** utility programs to convert formats, as necessary, for effective use in Web, video, audio, graphic, presentation, word processing, database, publication, and spreadsheet applications. 4. Students **continue** touch typing techniques, increasing keyboarding facility and improving accuracy, speed, and general efficiency in computer operation. 5. Students **examine** changes in hardware and software systems over time and **identify** how changes affect businesses, industry, government, education, and individual users.	1. Students **describe** new and/or advanced technology resources information dissemination options (e. g., video servers, webcasting, compressed video delivery, online file-sharing, graphing calculators, multifunction communications devices, global positioning software) and technology career opportunities. 2. Students **identify** capabilities and limitations of contemporary and emerging technology resources and **assess** the potential of these systems and services to address personal, lifelong learning, and workplace needs. 3. Students **collaborate** in teams to illustrate content-related concepts integrating a variety of media (e. g., print, audio, video, graphic, probes, simulations, models) with presentation, word processing, publishing, database, graphics design software, or spreadsheet applications. 4. Students routinely **apply** touch typing techniques with advanced facility, accuracy, speed, and efficiency as they complete their assignments. 5. Students **collaborate** in teams to evaluate software hardware, and networking systems to inform the development of a technology plan for a specific real-world business, educational entity, industry,

NETS for Students: Achievement Rubric Grades PK – 12				
NETS for Students	**Proficient by end of Grade 2**	**Proficient by end of Grade 5**	**Proficient by end of Grade 8**	**Proficient by end of Grade 12**
		information and functioning of the technology system.		organization, or other group.
B1. Students are proficient in the use of technology. (Information management)	Students **recognize** functions of basic File Menu commands (new, open, close, save, save as, print) and folders to manage and maintain computer files on a hard drive or other storage medium (diskette, CD-ROM)	Students **identify** basic software commands used to manage and maintain computer files an a hard drive, diskette, or CD-ROM; manage and maintain their files on a network; and **know how to exchange** files with other students and the teacher via network file-sharing and e-mail attachments.	Students **identify** strategies and procedures for efficient and effective management and maintenance of computer files in a variety of different media and formats on a hard drive and network.	Students **know how to use** advanced utilities (e. g., compression, antivirus) with computer files in a variety of different media and formats.
B2. Students are proficient in the use of technology (terminology and problem solving)	Students **recognize** accurate terminology to describe hardware, software, multimedia devices, storage media, and peripherals and to identify the basic functions of technology resources (hardware and software) commonly used in early elementary classrooms	Students **identify** correct terminology used to describe basic hardware, software, and networking functions, and to **discuss** the functions, processes, and/or procedures applied in common sue of these technology resources.	Students **know how to solve** basic hardware, software, and network problems that occur during everyday use; **protect** computers, networks and information from viruses, vandalism, and unauthorized use; and **access** online help and user documentation to solve common hardware, software, and network problems.	Students **know how to identify, access, and solve** advanced hardware, software, and network problems by using online help and other user documentation and support.
2. Social ethical and human issues. **a. Students understand the ethical, cultural, and societal issues related to technology**	Students **identify** common uses of information and communication technology in the community and in daily life.	Students **identify** issues related to how information and communication technology supports collaboration, personal productivity, lifelong learning, and assistance for students with disabilities.	Students **identify** legal and ethical issues related to use of information and communication technology, **recognize** consequences of its misuse, and **predict** possible long-range effects of ethical and unethical use of technology on culture and society.	Students **analyze** current trends in information and communication technology and **assess** the potential of emerging technologies for ethical and unethical uses in culture and society.
b. Students practice responsible use of technology systems, information, and software	Students **recognize** that copyright affects how one can use technology systems, information, and software resources.	Students **discuss** basic issues related to responsible use of technology and information, **identify** scenarios describing acceptable and unacceptable computer use, and **describe** personal consequences of inappropriate use.	Students **discuss** issues related to acceptable and responsible use of information and communication technology (e. g., privacy, security, copyright, file-sharing, plagiarism), **analyze** the consequences and costs of unethical use of information and computer technology (e. g., hacking, spamming, consumer fraud, virus setting, intrusion) and **identify** methods for addressing these risks.	Students **analyze** the consequences and costs of unethical use of information and computer technology and **identify** how individuals can protect their technology systems from the unethical and unscrupulous user.
c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration,	Students **describe** acceptable and unacceptable computer etiquette and how to work cooperatively with peers, family members, and others	Students **identify** software or technology-delivered access that is valuable to them, and **describe** how it improves their ability to	Students **examine** issues related to computer etiquette and **discuss** means for encouraging more effective use of technology to support effective	Students **analyze** current trends in information and communication technology and **discuss** how emerging technologies could affect

NETS for Students: Achievement Rubric Grades PK – 12				
NETS for Students	**Proficient by end of Grade 2**	**Proficient by end of Grade 5**	**Proficient by end of Grade 8**	**Proficient by end of Grade 12**
personal pursuits, and productivity.	when using technology in the classroom or at home.	communicate, be productive, or achieve personal goals	communication, collaboration, personal productivity, lifelong learning and assistance for individuals with disabilities.	collaboration, enhance personal productivity, meet the diverse needs of learners, and promote opportunities for lifelong learning among local and global communities.
3. Technology productivity tools. **a. Students use technology tools to enhance learning, increase productivity, and promote creativity.**	Students **know how to use** word processing, drawing tools, presentation software, concept-mapping software, graphing software, and other productivity software to illustrate concepts and convey ideas.	Students **identify and apply** common productivity software features such as menus and toolbars to plan, create, and edit word processing documents, spreadsheets, and presentations.	Students **describe and apply** common software features (e. g., spelling and grammar checkers, dictionary, thesaurus, editing options) to maximize accuracy in development of word processing documents; sorting, formulas and chart generation in spreadsheets; and insertion of pictures, movies, sound, and charts in presentation software to enhance communication to an audience, promote productivity, and support creativity.	Students **understand and apply** advanced software features such as templates and styles to improve the appearance of word processing documents, spreadsheets, and presentations and to provide evidence of learning, productivity, and creativity.
b. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications and produce other creative works.	Students **know how to work** together to **collect** and **create** pictures, images, and charts for development of word processed reports and electronic presentations.	Students **know** procedures for importing and manipulating pictures, images, and charts in word processing documents and spreadsheets, presentations, and other creative works.	Students **describe** how to use online environments or other collaborative tools to facilitate design and development of materials, models, publications, and presentations; and to **apply** utilities for editing pictures, images, and charts.	Students **analyze** a plan and procedures for development of a multimedia product (e. g., model, presentation, publication, other creative work, webcast), and **identify** authoring tools, other hardware and software resources, research, and team personnel needed to plan, create and edit.
4. Technology communication tools. **a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.**	Students, with assistance from teacher, parents, or student partners, **identify** procedures for safely and securely using telecommunications tools (e. g., e-mail, bulletin boards, newsgroups) to read, send, or post electronic messages for peers, experts, and other audiences.	Students **identify** telecommunications tools (e-mail, online discussions, Web environments) and online resources for collaborative projects with other students inside and outside the classroom who are studying similar curriculum-related content.	Students **know how to use** telecommunications tools such as e-mail, discussion groups, and online collaborative environments to exchange data collected and learn curricular concepts by communicating with peers, experts, and other audiences.	Students **plan and implement** collaborative projects (with peers, experts, or other audiences) using advanced telecommunications tools (e. g., groupware, interactive Web sites, simulations, joint data collection, videoconferencing) to support curriculum concepts or benefit the local regional or global community.
b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.	Students **know how to use** a variety of developmentally appropriate media (e. g., presentation software, newsletter templates, and Web pages as resources for clipart, music, and information resources) to **communicate** ideas relevant to the curriculum to their classmates,	Students **identify** a variety of media and formats to create and edit products (e.g., presentations, newsletters, Web pages, portable document format) that communicate syntheses of information and ideas from the curriculum to multiple	Students **know how to use** a variety of media and formats to design, develop, publish, and present products (e. g., presentations, newsletters, Web pages) that effectively communicate information and ideas about the curriculum to	Students **know how to use** a variety of media and formats to design, develop, publish, and present products, (e. g., presentations, newsletters, Web sites) that incorporate information from the curriculum and communicate original

NETS for Students: Achievement Rubric Grades PK – 12				
NETS for Students	**Proficient by end of Grade 2**	**Proficient by end of Grade 5**	**Proficient by end of Grade 8**	**Proficient by end of Grade 12**
	families, and others.	audiences.	multiple audiences.	ideas to multiple audiences.
5. Technology research tools. **a. Students use technology to locate, evaluate, and collect information from a variety of sources.**	Students, with assistance from teacher, parents or student partners, **identify** steps for using technology resources such as CD-ROMs (reference or educational software) and Web-based search engines to locate information on assigned topics in the curriculum.	Students **describe** steps for using common Web search engines and basic search functions of other technology resources to locate information, and guidelines for evaluating information from a variety of sources for its relevance to the curriculum.	Students **know how to conduct** an advanced search using Boolean logic and other sophisticated search functions; and **know how to evaluate** information from a variety of sources for accuracy, bias, appropriateness, and comprehensiveness.	Students **know how to locate, select, and use** advanced technology resources (e. g., expert systems, intelligent agents, real-world models and simulations) to enhance their learning of curriculum topics selected.
b. Students use technology tools to process data and report results.	Students, with assistance from the teacher, **know how to use** existing common databases (e. g., library catalogs, encyclopedias, online archives, electronic dictionaries) to locate, sort, and interpret information on assigned topics in the curriculum.	Students **describe** how to perform basic queries designed to process data and report results on assigned topics in the curriculum	Students **know how to identify and implement** procedures for designing, creating, and populating a database; and in performing queries to process data and report results relevant to an assigned hypothesis or research question.	Students **formulate** a hypothesis or research question on a curriculum topic they choose; and design, create and populate a database to process data and report results.
c. Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.	Students **identify** technology resources (e. g., simple conceptual mapping software) to show steps in a sequence; to **demonstrate** likenesses and differences, and to **recognize, record and organize** information related to assigned curricular topics.	Students **identify, record, and organize** information on assigned topics in the curriculum by selecting and using appropriate information and communication technology tools and resources (e. g., slide show, timeline software, database, conceptual mapping).	Students **know how to select and use** information and communication technology tools and resources to collect and analyze information and report results on an assigned hypothesis or research question.	Students **formulate** a hypothesis or research question and **select and use** appropriate information and communication technology tools and resources for collecting and analyzing information and reporting results to multiple audiences.
6. Technology problem-solving and decision-making tools. **a. Students use technology resources for solving problems and making informed decisions.**	Students **know how to select** information and communication technology tools and resources that can be used to solve particular problems (e. g., concept-mapping software to generate and organize ideas for a report; illustrate or sequence a story; a drawing program to make a picture; presentation software to communicate and illustrate ideas; a graph program to organize and display data; a Web browser and search engine to locate needed information).	Students **know how to apply** their knowledge of problem-solving tools to select appropriate technology tools and resources to solve a specific problem or make a decision.	Students **identify** two or more types of information and communication technology tools or resources that can be used for informing and solving a specific problem and presenting results, or for identifying and presenting an informed rationale for a decision.	Students **describe** integration of two or more information and communication technology tools and resources to **collaborate** with peers, community members, experts, and others to solve a problem and present results, or to present an informed rationale for a decision.
b. Students employ technology in the development of strategies for solving problems in the real world.	Students **identify** ways technology has been used to address real-world problems.	Students **know how to select and use** information and communication technology tools and resources to collect, organize, and evaluate information relevant to a real world	Students **describe** the information and communication technology tools they might use to compare information from different sources, analyze findings, determine the need for additional information, and draw	Students **integrate** information and communication technology to analyze a real-world problem, design and implement procedures to monitor information, set timelines, and evaluate progress toward the solution

NETS for Students: Achievement Rubric Grades PK – 12				
NETS for Students	**Proficient by end of Grade 2**	**Proficient by end of Grade 5**	**Proficient by end of Grade 8**	**Proficient by end of Grade 12**
		problem.	conclusions for addressing real-world problems.	of a real-world problem.

SECTION III

H. Professional Development Rubric

RESOURCES

- **Design Elements for High Quality Professional Development**
- **Levels of Proficiency in Technological Skills**
- **Matrix of Professional Teachers' Proficiency in Computer-Based Technology**
- **Teacher Achievement Rubric**

H. Professional Development Rubric

Create implement and monitor a technology professional development plan based on assessed teacher competencies. See appendices, *Levels of Proficiencies and Technology Skills and Matrix of Professional Teacher Proficiency in Computer Based Technology.*

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies clear goals and a specific implementation plan for providing professional development opportunities based on the needs assessment.	Missing or fails to identify needs assessment for professional growth. Missing or identifies only basic technology skills. Missing or fails to identify support system for professional growth. Missing or fails to identify a professional growth plan for all members of the faculty/staff. Missing or fails to identify schedule for continuous and ongoing professional growth.	Surveys teachers' and administrators' current technology skills and needs for professional growth with a credible instrument. Compiles benchmarks and a timeline for implementing the strategies and activities to foster professional growth in technology beyond the basic level of expertise. Provide continuous and ongoing professional development opportunities in technology. Provide support for professional growth and development in technology. Identifies assessment and evaluation linked to professional development.	Surveys teachers' and administrators' current technology skills and needs for professional growth with a credible instrument on an annual basis. Identifies strategies to individualize technology training and classroom integration in a continuous and ongoing basis. Offers a variety of incentives for professional growth in technology. Clearly identifies assessment and evaluation with adequate support, scheduling flexibility, and budget for continuous and ongoing monitoring.

DESIGN ELEMENTS FOR HIGH QUALITY PROFESSIONAL DEVELOPMENT

1. **Uses student performance and achievement data, including student feedback, teacher observation, analysis of student work, and test scores, as part of the process for individual and organizational learning.**
   Sources of data and information include the results and outcomes from multiple forms of assessment. In addition, information about the students' cultural context and learning history is included. The purpose of using a variety of data sources is for teachers to know their students well and then to use that knowledge to plan professional development that will increase students' learning.

2. **Uses a coherent, long-term professional development planning process connected to the school plan that reflects both site-based priorities and individual learning needs.**
   Professional development planning is an ongoing process that is closely linked to other planning activities at the site—those that take place for Program Quality Review, Focus on Learning, school improvement, and various initiatives. Plans and initiatives are linked systematically and overlap with whole school goals. The planning process is ongoing, and changes are made as a result of teacher feedback and formative evaluation of teacher learning.

3. **Provides time for professional learning to occur in a meaningful manner.**
   Time is the greatest stumbling block for providing relevant and timely high-quality learning opportunities for teachers—time to plan, reflect, design lessons together, and examine and make meaning of content and teaching standards. Teachers need time both on-site and away from school to pursue learning opportunities.

4. **Respects and encourages the leadership development of teachers.**
   There are a variety of leadership roles for teachers: planning/governance at the site, mentoring new teachers, acting as consulting teachers, coordinating alliances and learning networks among teachers, developing curriculum, and advising Diocesan and state policymakers. The *California Standards for the Teaching Professional* (CSTP) and the *National Board for Professional Teaching Standards* (NBPTS) inform local diocese about ways to develop leadership roles that will model high standards for teaching.

5. **Develops, refines, and expands teachers' pedagogical repertoire, content knowledge, and the skill to integrate both.**
   Professional development strategies such as workshops, institutes, networks, and academies, as well as job-embedded activities, are related to the *California Standards for the Teaching Profession* (CSTP) and are helpful in closing the achievement gap between the highest- and lowest-performing groups of students.

6. **Provides for and promotes the use of continuous inquiry and reflection**
   Through inquiry and reflection, teachers come to understand content standards, self-assess their teaching with respect to the *California Standards for the Teaching Profession* (CSTP) and examine beliefs and assumptions that impede their success with students. Strategies for ongoing inquiry and reflection include participating in action research, creating teaching portfolios, keeping journals, examining student work and student data, reflecting with a colleague or coach, and conducting studies of individual students.

7. **Provides for collaboration and collegial work, balanced with opportunities for individual learning.**
   A collaborative learning culture is central to the professional development enterprise and is characterized by activities such as study groups, joint planning and problem solving, peer coaching, interdisciplinary or team teaching, and shared learning from off-site trainings or from participation in alliances and networks. All of these activities are ongoing and help individual teachers address their personal learning plans and, at the same time, extend the learning to others at the site.

8. **Follows the principles of good teaching and learning, including providing comfortable, respectful environments conducive to adult learning.**
   The conditions that support powerful learning for adults include attending to what is learned, how it is learned, and where it is learned. The Concerns-Based Adoption Model (CBAM) is one strategy for determining teachers' levels of concern and, subsequently, designing appropriate learning strategies.

9. **Creates broad-based support of professional development from all sectors of the organization and community through reciprocal processes for providing information and soliciting feedback.**
   Partnerships with parents, community members, and institutions and agencies in the broader community can provide important resources for teachers and administrators. Understanding and support for professional development, both within the educational community and with the public, can be built through communication, information sharing, and mutual respect and trust.

10. **Builds in accountability practices and evaluation of professional development programs to provide a foundation for future planning.**
    Evaluation of professional development programs at the school site are conducted with a framework that includes data and knowledge about students (Design Element 1), reference to the overall school plan and goals (Design Element 2), and existing state and Diocesan policies and resources (Design Element 9). Program evaluation is also referenced against teaching standards and student content standards. Every aspect of teacher learning is linked to student learning.

LEVELS OF PROFICIENCY IN TECHNOLOGY SKILLS

(Required for Preliminary Teaching Credentials)

Levels of General Computer Skills			
	Introductory	**Intermediate**	**Proficient**
General knowledge of basic hardware and software terminology G1	• Identifies hardware components, peripherals, and their purpose. • Identifies icons, windows, and menus	• Uses icons, windows and menus • Uses basic peripherals (e. g., CD-ROM, storage media, etc.)	• Incorporates general knowledge of basic hardware and software into lesson design as appropriate (e. g., vocabulary, naming and saving conventions, printing, etc.
Knowledge of the operation and care of hardware G2	• Starts up and shuts down computer and peripherals • Uses a mouse • Inserts and ejects diskettes, CD-ROM, etc. • Uses software from a disk, hard drive, or CD-ROM • Creates, names/renames folders and files • Starts an application and creates a document • Names, saves, saves as, retrieves and revises a document • Prints documents	• Organizes the desktop • Initializes, formats, and names diskettes • Copies documents between computer and diskettes • Chooses printer location	• Allocates memory needed by applications • Accesses and changes control panels • Sets software preferences • Makes more system memory available • Performs regular maintenance • Organizes files and programs • Uses print preview and options • Opens and works with more than one application at a time • Shares files and printers on a network • Installs software • Selects and uses appropriate anti-virus software
Knowledge of basic troubleshooting techniques G3	• Restarts a frozen computer • Identifies directly connected or networked printer problems	• Troubleshoots basic hardware, software, and printing problems before accessing the appropriate level of support • Checks cables for proper attachment • Solves simple printer problems with directly connected printer	• Troubleshoots common hardware, software, and printing and network problems before accessing the appropriate level of support
Integration, student learning, and classroom management G5	•	• Explains various models for classroom management of technology • Cites examples of appropriate applications of technology as an educational tool.	• Selects and uses effective classroom management techniques using technology in a limited number of educational settings • Selects and implements appropriate technology tools to support teaching and learning processes.
General knowledge and appropriate use of hardware and software (e. g., Web browsers and connections) G1, G5	• Launches a browser and uses the toolbar • Specifies a URL and can point and click to navigate on existing links • Changes window sizes • Views history	• Explains the anatomy of a URL • Configures preferences for software • Sets a homepage • Refreshes or reloads a page • Hides, displays, or configures the toolbar	• Selects helper files/applications used to open downloaded files • Maintains and organizes favorite bookmarks • Troubleshoots address errors (i.e., 404 errors) • Uses and manages multiple windows.

Levels of General Computer Skills			
	Introductory	**Intermediate**	**Proficient**
	• Accesses help file • Explains basic internet terminology • Accesses the Internet through a modem or network	• Locates and opens a local file within the browser • Copies, pastes and saves from web pages • Downloads files • Configures page setup to print citation resources	
Communication collaboration S3, S4	• Explains use of e-mail as means of communication	• Uses e-mail to communicate with members of a group	• Uses chat rooms, newsgroups or threaded discussions to communicate with members of a group
Research tools S7	• Conducts basic searches	• Explains the differences between search indexes, search engines, and metasearch tools • Understands Boolean logic • Conducts natural language searches	• Uses advanced search features • Conducts multiple search strategies to locate and validate information • Uses Internet search engines as a resource for lesson development
Ethics and policies G4, S13, S14	•	• Explains issues surrounding Internet use in the classroom (e. g., copyright, management, student safety, AUP, etc.)	• Implements procedures and management techniques concerning Internet use in the classroom for instruction
Information literacy S5, S8	• Evaluates information for accuracy • Identifies whether a source is credible	• Organizes information • Analyzes and interprets information	• Uses a wide variety of sources • Filters information for relevancy • Incorporate information literacy strategies into lesson design
Integration, student learning, and classroom management S6, S9 – S12	•	• Locates resources appropriate for integrating technology into lesson design	• Selects and uses Internet resources appropriately in lesson design • Selects and uses effective classroom management techniques.
General Knowledge and appropriate use of hardware, software G1, G5	• Explains telecommunications terms • Explains the three main components of an e-mail address	• Configures e-mail preferences • Attaches, receives, and opens attachments • Creates and uses an address book • Recognizes and uses embedded Web links	• Manages an address book • Locates, opens and manage attached files
Communication and collaboration S3, S4	• Starts up program, retrieves and reads e-mail • Saves prints, and deletes e-mail • Composes, edits, and sends new e-mail	• Uses reply to send, reply to all, and forwarding functions appropriately • Uses cc and bcc to communicate with one person or a few people	• Employs e-mail to communicate with and provide information to student's parents, and community members.
Integration, student learning, and classroom management S6, S9 – S12	• Explains procedures and processes for use of e-mail in the classroom	• Describes use of e-mail in the classroom for connecting with others, such as keypals, global classrooms, parallel problem-solving, mentoring, etc.	• Designs curricular lessons that utilize e-mail as a part of the activity • Selects and uses effective classroom management techniques using e-mail in a limited number of

Levels of General Computer Skills			
	Introductory	**Intermediate**	**Proficient**
			educational settings • Selects and uses appropriate e-mail tools to support teaching and learning
Legal and ethical issues G4, S13, S14	• Explains "netiquette" • Explains issues surrounding student safety and security	• Practices appropriate "netiquette" related to e-mail • Follows up on issues related to personal safety and security	• Incorporates "netiquette" in classroom instruction • Follows student safety and security procedures in instruction.
General knowledge and appropriate use of hardware and software G1, G5	• Identifies word-processing terms (e. g., word processing, cursor, styles, etc.) • Opens, saves, prints, and deletes a document	• Navigates in a large document • Accesses and uses help • Previews document to identify layout problems • Uses basic proofing tools to detect errors (e. g., spell check, grammar check)	• Find and replaces text • Saves word-processing documents in other file formats • Retrieves documents with the find file command
Communicate through printed media S2	• Types, selects, corrects, and deletes text • Adjusts tabs and margins • Applies and changes font, characters, and paragraph formats • Changes on-screen view mode and magnification	• Copies and pastes text within and between documents • Uses styles to change the appearance of paragraphs and outlines • Uses templates • Applies borders • Creates numbered and bulleted lists • Adds and deletes page breaks and creates headers and footers • Creates tables using built-in software assistance	• Uses word processors to create lesson plans, articles, reports, etc. • Enhances documents by inserting graphics • Incorporates drawing tools • Resizes and relocates graphics within a document • Creates templates • Formats text in columns with different fonts and colors
Integration, student learning and classroom management S6, S9-12	•	• Transcribes handwritten documents into word-processed documents • Creates a simple word-processed document	• Creates enhanced word-processed documents for classroom use • Designs lessons that utilize word processing as part of the activity
General knowledge and appropriate use of hardware and software G1, G5	• Defines publishing terms (e. g., page layout, stories, fields, etc.) • Opens, saves, prints, and deletes a document	• Navigates in a large document • Accesses and uses help • Previews document to identify layout problems • Uses basic proofing tools to detect errors (e. g., spell check, grammar check)	• Finds and replaces text • Saves text documents in other file formats.
Communicates through printed media S2	• Creates a new document • Changes document set-up • Copies, cuts, and pastes text and graphics • Changes on-screen view mode and magnification	• Imports/places and resizes graphics, (e.g., clip art, charts, auto-shapes, etc.) both as objects and as type • Uses suitable size, style, and number of fonts • Creates a simple shape graphic	• Understands elements of basic design (e. g., white space, page layout, etc.) • Saves documents in appropriate formats • Integrates various and appropriate software for desktop publishing (e. g., graphics, layout, etc.)

Levels of General Computer Skills			
	Introductory	**Intermediate**	**Proficient**
	• Incorporates clip art • Changes typefaces, font size, and other text attributes • Changes text alignment/justification • Identifies types of publishing software (e.g., word processing, page layout, image/graphic, etc.) • Undo unwanted changes	• Controls text flow around graphics • Moves, arranges and layers objects • Creates numbered and bulleted lists • Uses guides and rulers • Creates multiple columns with text • Controls page numbering • Changes page tabs, margins, and indents • Edits line and shape style and fill properties • Creates and modifies headers and footers	• Incorporates digital images from external sources (e. g., cameras, scanners, Internet)
Integration, student learning, and classroom management S6, S9 – 12	• Describes various types of publishing media and possible classroom applications	• Selects media to support instructional objectives	• Develops student assignments that embed elements of effective design • Plans for effective classroom management of available resources.
General knowledge and appropriate use of hardware, software G1, G4, G5	• Defines database terms (e. g., records, fields, etc.) • Creates opens, and saves a database • Selects, moves, copies, deletes, clears and inserts fields and records	• Formats fields to reflect appropriate data (e. g., date, name, currency, etc.) • Explains differences between report and query/search/find • Uses print preview to identify print problems	• Finds and replaces data • Sorts, matches, and goes to specific records • Exports data from database • Adds header and footer
Manage records (e. g., grade book, attendance, etc.) S1	• Enters text and data into appropriate fields	• Uses find command to locate a specific record • Creates or modifies report layout	• Merges database information with word processing document to produce form letters
Communicate through printed media S2	• Sorts data to produce reports (e. g., alphabetical listings, etc.) • Formats text and numbers in record (e. g., boldface, currency, etc.)	• Creates a variety of report layouts • Sorts or defines data to print only required records (e.g., students reading at grade level)	• Imports data from other applications • Creates new layouts or edits existing layouts for specific productivity or curricular goals.
Integration, student learning, and classroom management S6, S9-12	• Describes the educational uses of databases	• Identifies lessons that require the manipulation of data • Creates new databases related to content area (e. g., world populations, animal data etc.)	• Designs curricular lessons using databases to enhance learning outcomes • Develops student assignments that require management and manipulation of a variety of data.
General knowledge and appropriate use of hardware, software G1,G5	• Defines spreadsheet terms (e. g., cells, alignment, formula, etc.) • Creates, opens, and saves spreadsheets • Navigates using the mouse and tabs	• Sorts cells • Changes text cell alignment and justification • Replicates a formula or range of cells (e.g., fill down, fill right)	• Saves in a variety of formats • Imports/exports charts and data (e. g., spreadsheet to word processing, etc.) • Aligns and rotates text and numbers

Levels of General Computer Skills			
	Introductory	**Intermediate**	**Proficient**
	• Undo unwanted changes • Locates cells based on column/row addresses • Selects moves, copies, deletes, clears and inserts cells • Selects entire column or row • Resizes cells and rows • Changes typeface, font size and other cell attributes	• Creates simple bar graphs or pie charts • Adds shading and borders • Selects charts for appropriate data representation	• Creates a variety of charts • Labels graphs appropriately
Manage records (e.g., grade book, attendance, etc.) S1	• Enters text and data into specific cells	• Creates formula cells (e. g., sum, average, etc...) • Formats cells for appropriate content such as text, decimal alignment, currency	• Utilizes grade book templates • Maintains student records
Communicate through printed media S2	• Adjusts layout and margins • Uses print preview and print document with title • Creates and edits headers, footers, and page numbers • Sets up print options for grid lines, zoom, etc.	• Prints a specific range of cells, pages, and sheets • Searches for and replaces text • Changes size, placement, and title of charts • Changes margins	• Imports/exports charts into word processing application
Integration, student learning, and classroom management S6, S9 – 12	• Describes the educational uses of spreadsheets	• Creates new spreadsheets related to content area	• Designs curricular lessons requiring use of spreadsheet • Creates appropriate charts for a content lesson.
General knowledge and appropriate use of hardware, software G1, G5	• Defines presentation and multimedia terms (e.g., slides/cards, slide show, hyper-navigation, etc.) • Creates, opens, modifies, and saves presentations • Defines available tools (e. g., drawing, text, etc.) • Uses templates or wizards to create a new presentation • Adds new slides or cards • Inserts text, formats text, or adds text box • Uses toolbar or menus to apply formatting changes • Inserts clip art or digitized pictures	• Inserts or changes slide or card design • Navigates using scrollbar, slide sorter, menu, key commands, etc. • Switches between different page view • Rearranges the order of slides or cards • Applies backgrounds and objects appropriately • Uses available tools (e. g., drawing, text, etc.) • Incorporates sound • Defines different image types (i.e., TIFF, GIF, PCX) • Connects, configures, and troubleshoots peripheral devices for presentation	• Creates and edits navigational buttons to move through presentation • Navigation through presentation is clear and easy to understand • Applies transitions and effects, if appropriate to slides or cards • Incorporate hypertext links • Incorporates animations from library • Incorporates movies from library • Records sound and inserts in presentation • Incorporates clip art from other sources (e. g., Internet, scanner etc.) • Organizes presentation resources in a folder on the desktop or server • Edits clip art (if appropriate)

Levels of General Computer Skills			
	Introductory	**Intermediate**	**Proficient**
Communicates through print media S2	• Prints slides	• Demonstrates understanding of basic design elements (i.e., color design, space and composition) • Prints using advanced printing options	• Prints handouts that enhance instructional objectives (e. g., outlines, notes, etc.)
Integration, student learning, and classroom management S6, S9 – 12	• Describes the educational uses of presentation software	• Organizes information in a clear, consistent way for the viewer • Creates cards or slides using effective design to enhance communication • Uses appropriate background and text colors to ensure clarity and readability	• Designs curricular lessons having multimedia to enhance learning outcomes • Follows fair use and copyright laws for text, graphics, and sound.
Analyzes best practices and research findings G5, S12	• Locates learning, teaching, and communication resources related to implementation in the classroom	• Is able to locate and adapt lessons based upon best practices and research findings	• Analyzes best practices and research finding on the use of technology and designs lessons accordingly
Considers content to be taught and selects the best tech resources to support, manage, and enhance learning S5, S10	• Identifies established criteria used to evaluate digital media • Receives examples of lesson plans that integrate technology • Identifies process used to match technology with content	• Practices evaluating educational digital media using established criteria • Practices including appropriate technological resources in classroom lesson plans	• Evaluates educational digital media using established criteria • Includes appropriate technological resources in classroom lesson plans
Identifies student learning styles and determines appropriate resources S6, S9	• Is aware of learning style inventories for students • Examines a variety of technology resources for their applicability to learning styles	• Selects and uses activities to identify student learning styles • Uses a variety of technology resources in lesson plans suited to student learning styles	• Integrates appropriate technology resources and adapts lessons and classroom practice according to learning style inventory results
Demonstrates ability to create and maintain effective learning environments using computer-based technology S11	• Describes various models of technology use that enhances learning and increases efficiency and productivity	• Uses teacher productivity tools for classroom management (e. g., home-school communication, student records and grades) • Lesson plans reflect a management system for computer-based activities	• Effectively uses technology for whole-class, small group, and individual instruction • Designs classroom activities that allow all students to build upon their technology skills and increase learning • Implements management procedures that support assessment of student involvement and achievement
Demonstrates knowledge of privacy, security and safety issues G14, S13, S14	• Explains the need for and use of copyright policy, protection of student privacy, security and safety	• Implements established policies for safe, private, and secure practices in personal work • Personally implement established policies about copyright and plagiarism	• Implements established policies for safe, private and secure practices in classroom • Implements policies about copyright and plagiarism in classroom.

MATRIX OF PROFESSIONAL TEACHERS' PROFICIENCY IN COMPUTER-BASED TECHNOLOGY

Communication and Collaboration

Factors to Consider	Professional Profile	Performance Indicators
Communicates through a variety of electronic media P2	• Identifies, selects, and uses digital communication tools appropriately. • Uses digital tools to communicate with students parents, and community members to enhance management and learning	• Evidence of the use of a variety of communication tools based on resources available (e. g., telephone, e-mail, fax, listserv or Web page) • Evidence of the management of information using technology to increase communication (e. g., Web pages, voice mail, homework hotlines)
Interacts and collaborates with others using computer-based collaborative tools P3	• Supports student learning through collaboration with parents, subject matter experts, educators, and others using digital tools • Participates in professional growth activities by using digital communication tools	• Evidence of sustained communication with parents, students, and/or colleagues through mailing lists, video conferencing, online staff development, shared network folders, etc. • Student projects utilize digital tools to interact with subject matter experts. • Lesson/activity plans are designed collaboratively using appropriate communication tools as a medium (e. g., e-mail, listserv, shared network folders, mailing lists, video conferences, etc.)
Collaborates with other teachers, mentors, librarians, resource specialists, and other experts to support technology-enhanced curriculum P11	• Uses digital communication tools to work with educators and subject matter experts to design classroom activities to support student learning • Seeks out and draws upon the expertise of others to support the learning process and technology-enhanced curriculum	• Student work that exemplifies evidence of active collaboration with outside experts • Interdisciplinary lessons and cross grade level projects (see also Planning, Designing, and Implementing Learning Experiences, P5)
Contributes to site-based planning or local decision making regarding the use of technology and acquisition of technological resources P12	• Provides leadership by participating in schoolwide decision-making and learning activities that support learning through the use of technology • Actively contributes to the development or updating of site or Diocesan, based technology plans • Explores new technologies and recommends innovative educational applications appropriate to the curricular needs of the students and site	• Participation in grade-level or department activities to develop a school site technology plan • Pursues continuing education (e. g., educational technology, conference attendance, curriculum integration, online courses workshops) • Evidence of active participation in the site or Diocesan decision-making process regarding the use and acquisition of technology (e. g., grade-level technology committee, technology planning).

Planning, Designing and Implementing Learning Experiences

Factors to Consider	Professional Profile	Performance Indicators
Demonstrates competence in evaluating the authenticity, reliability, and bias of data gathered; determines outcomes and evaluates the success or effectiveness of the process used P4	• Evaluates authenticity, accuracy, reliability, and bias of resources to be used in the planning and designing of instructional activities • Identifies the process used to evaluate data and determines the success or effectiveness of that process • Applies information literacy competencies in professional practice	• Research on curricular resources incorporates multiple references from a variety of credible electronic and tranditional sources. • Evidence of self-reflection and evaluation on the outcome and success of the process used through anecdotal records, self-reflections, journals, and lesson plan revisions.
Optimizes lessons based upon technological resources available in a variety of learning locations P5	• Applies best practices and research findings on the use of technology in managing resources for specific student populations • Analyzes the needs of students and organizes appropriate and available technological resources for curricular applications • Establishes technology procedures and routines that engage all students in a variety of learning environments.	• Classroom activities reflect the availability of technology tools and resources at site, community and home. • Lesson activities use appropriate technology resources base upon specific student needs (e. g., drill and practice, simulation, video-based instruction). • Lesson activities reflect access to a variety of learning locations (e. g., one computer room, computer lab, multiple workstations in a room, and portable technologies).
Designs, adapts and uses lessons that develop student information literacy and problem-solving skills as tools for lifelong learning P6	• Implements lessons that engage students in evaluation information, problem-solving, and critical thinking to make subject matter meaningful • Facilitates activities that engage students to become self-directed learners through effective use of technology aligned with curriculum standards • Incorporates lessons using appropriate technological and traditional tools for student research, data gathering, analysis, and presentation.	• Student research projects incorporate multiple references from a variety of credible electronic and traditional sources. • Student methods of utilizing valid information are analyzed for success (e. g., Rubrics, student reflection, and/or bibliographic cross referencing). • Evidence that improvements to future student activities are planned (See also Assessment and Evaluation, P10) • Lesson plans indicate activities to maximize student learning by matching the most appropriate technology resources to instructional and learner needs.
Creates or makes use of learning environments inside the classroom, as well as in library media center or computer labs, that promote the effective use of technology aligned with curriculum P7	• Selects appropriate technology that supports state academic content standards • Implements effective classroom management techniques using technology in a variety of educational settings • Employs a variety of technology-based instructional strategies to enhance learning (e. g., direct, cooperative, individual, etc. • Supports varying learning styles and modalities by integrating a variety of technological resources in lesson design for all students.	• Sample technology-integrated lessons are clearly aligned with state academic content standards • Evidence of lessons that provide for equal access to technological resources for all students in a variety of locations • Sample technology-integrated lessons use technology appropriately.
Uses technology in lessons to increase each student's ability to plan, locate, evaluate, select, and use information to solve problems and draw conclusions P8	• Engages students in the process of planning, locating, and evaluating information obtained by using technology • Designs technology-infused lessons to increase student's critical-thinking skills • Facilitates technology-infused experiences that promote	• Evidence of lessons that provide engaging activities for students to evaluate information, solve problems, and draw conclusions. • Student projects demonstrate student's increased ability to plan in order to select and use information

Factors to Consider	Professional Profile	Performance Indicators
	autonomy, interaction, and choice • Incorporates instructional strategies to develop student skills for assessing validity and reliability of information	• Models the use of technology to plan activities for solving problems and drawing conclusions
Demonstrates knowledge and understanding of the legal and ethical issues concerned with the use of computer-based technology G4, S13, S14	• Translates the school's acceptable-use policy (AUP) into understandable rules and procedures for students • Demonstrates and advocates legal and ethical behaviors for students and colleagues regarding the use of technology and information	• Models, teaches, and reinforces intellectual property rights and acceptable-use polices • Evidence that students are following the acceptable-use policy • Evidence of lessons that include copyright and policy citations • Student reports include appropriate bibliographic information

Assessment and Evaluation

Factors to Consider	Professional Profile	Performance Indicators
Uses computer applications to manipulate and analyze data P1	• Collects, organizes, and analyzes data using technology for the purpose of managing resources, learning environments, and project design • Uses technology to collect and analyze data for school instructional planning	• Evidence of the use of a gradebook spreadsheet or database program to record and report student progress • Instruction is modified based on the analysis of student mastery of data by using Diocesan-adopted student information system • Evidence of the use of assessment tools and strategies to evaluate student activities • Customized documents for school planning use technology
Uses technology to assess student learning and provide feedback to students and parents P9	• Devises project assessments that allow students and parents to monitor progress and adapt educational activities appropriately • Produces individualized learning reports of students • Shares learning reports with students and parents to provide feedback to improve purposeful student engagement in learning • Collects, interprets, and reports student performance data using technology	• Evidence of the use of electronic means to collect student data (e. g., gradebooks, web-based testing, computer-aided instruction, etc.) • Presentations are produced for a variety of audiences to illustrate student performance. • Evidence of the use of technology to create individual learning reports for parents and students
Frequently monitors and reflects upon the results of using technology in instruction and adapts lessons accordingly P10	• Analyzes the effects of technology integration on student learning and modifies lessons to better meet curricular goals • Uses technology tools to collect and analyze student data to effectively manage instruction and classroom management • Analyzes best practices and research findings on the use of technology and designs lessons accordingly	• Plans identify, manage and organize resources available for appropriate student use • Portfolio of progressive lesson plans indicates more effective use of technology in alignment of best practices and research findings • Evidence of reflection on the process of monitoring, analyzing, and modifying the effective use of technology in lessons.

TEACHER ACHIEVEMENT RUBRIC

Purpose: This version of the NETS for Teachers: Achievement Rubric is available online for educational technology professionals to review and provide feedback to the developers.

More Information: If you have questions about the rubric, please contact the developers at netsrubric@learningpt.org

NETS for Teachers I

	Novice	Basic	Proficient	Advanced
A. Demonstrate knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Educational Technology Standards for Students).	A. Teachers **identify functions of the computer describing access, control, and use** of classroom computer hardware including input devices(e. g., keyboard, track-pad, and mouse), output devices (e. g., monitors and printers), and internal and external storage options (e. g., hard drive, floppy drive, portable drive, compact disks). A2. Teachers **describe general uses of** computer-based curriculum materials; applications programs (e. g., word processor, drawing program, presentation software, e-mail); online reference materials; Internet browser; and school administrative reporting software. A3. Teachers **identify** graphical user interface (GUI) **functions represented by menus, symbols, and icons** commonly used to navigate and control computer- and Internet-based curriculum software; and identify drawing, editing, menu selection, or other options within a program.	A1. Teachers **identify and use** common peripheral devices found in the classroom (e. g., printer, monitor, scanner, digital camera, video projector) and **describe how to locate information** on uses, care, and basic maintenance of these classroom technology resources. A2. Teachers **describe teacher and student uses** for application software; network-based curriculum resources; spreadsheets, database, and e-mail application software; and common utilities software. A3. Teachers **identify and apply** GUI menu options to select, create, edit, manage and maintain computer files on a hard drive, floppy disk, or networked location.	A1. Teacher **compare and evaluate hardware components and software resources** used to provide access to local area networked curriculum materials, Web resources, and multimedia resources (e. g., computer system, printers, monitors, video projectors, external drives, scanners, digital cameras, speakers, browsers, plug-ins, media players, movie, photo, and music utilities). A2. Teachers **identify, describe, and solve** simple hardware, software, and networking problems that occur during everyday use and know how to clearly **communicate** more serious technical difficulties, need for support, or technical assistance to appropriate technical staff. A3. Teachers **recognize, manage, and maintain** computer files in a variety of different media and formats on a hard drive, network, and Web location.	A1. Teachers **know how to connect and use** common peripherals, **identify and describe** uses, advantages and challenges for advanced resources (e. g., digital probes, artificial intelligence, virtual reality, simulations) and advanced network resources (e. g., compressed video, video server, video conferencing software, and Web casting) A2. Teachers **know how to access and use** help desks, online help, and user documentation to recognize common hardware or software and network problems. A3. Teachers **select advanced utilities** (e. g., compression, antivirus, **spam blocker**) based on specific system needs.
B. Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.	B. Teachers **select** school, Diocese, university, or online professional development opportunities based on the ISTE National Educational Technology Standards for Teachers and **develop** a plan for their own professional growth.	B. Teachers **select and use correct terminology** to describe functions of current and emerging hardware, software, and network-related resources used for classroom settings.	B. Teachers **research** emerging hardware, software, and network-related resources reported by current news, periodicals and Internet resources, and at professional meetings and **involve students in investigating and assessing** possible effects of evolving technologies on education and jobs.	B. Teachers **identify** emerging technology resources and **formulate strategies for acquisition and use** of emerging technologies with a convincing degree of educational potential.

NETS for Teachers II

	Novice	Basic	Proficient	Advanced
A. Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.	A. Teachers **identify** developmentally appropriate technology-based learning resources that address content standards, technology standards, and individual learner needs.	A. Teachers **select and use** appropriate technology resources to enhance individual student academic performance and technology literacy	A. Teachers **know how to plan and implement technology-based learning activities** that promote student engagement in analysis, synthesis, interpretation, and creation of original products.	A. Teachers **know how to apply** information and communication **technology to gather and analyze date that will drive planning** of learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
B. Apply current research on teaching and learning with technology when planning learning environments and experiences.	B. Teacher **identify research and learning theories and describe** their application to teaching and learning with technology.	B. Teachers **predict potential** of specific technology, software, teaching strategies, or environmental factors to contribute positively to student learning **based on established educational research.**	B. Teachers **use research** on teaching and learning with technology **to inform their planning** of technology-based learning environments and experiences.	B. Teachers **identify or describe how** involvement in or results of classroom-based action research, case studies, surveys, focus groups, or experimental studies of technology-based learning environments and experiences changed or affirmed their planning, teaching, or assessment practices.
C. Identify and locate technology resources and evaluate them for accuracy and suitability	c. Teachers **select** technology resources based on alignment of content to curriculum, developmental level, accuracy, and suitability to the student needs	C. Teachers **describe criteria for evaluation** of a variety of technology resources for accuracy, appropriateness, comprehensiveness, and bias.	C. Teachers **identify** activities designed to engage students in researching a variety of technology resources and evaluating the resources for accuracy, appropriateness, comprehensiveness and bias.	C. Teachers **evaluate plans for** managing available technology resources, providing equitable access for all students, and **improving student academic achievement and technology literacy** across content areas.
D. Plan for the management of technology resources within the contest of learning activities.	D. Teachers **identify resource management strategies** that are appropriate to student developmental levels.	D. Teachers **develop and implement plans** that facilitate student-centered learning activities in which students apply curriculum-related technology resources.	D. Teachers **describe development process for managing** available technology resources to facilitate improvement of student academic achievement and technology literacy	D. Teachers **engage in ongoing planning of lesson sequences that effectively integrate technology resources** and are consistent with current best practices for integrating the learning of subject matter and student technology standards.
E. Plan strategies to manage student learning in a technology-enhanced environment	E. Teachers **identify technology management strategies**	E. Teachers **know how to plan** student-centered learning activities that facilitate access to technology resources for all students.	E. Teachers **associate technology management issues and related solutions** to inform planning of technology, enhanced teaching, learning, and communications activities	E. Teachers **explain benefits and limitations of collaborative planning** for management of technology-based learning activities.

NETS for Teachers III

	Novice	Basic	Proficient	Advanced
A. Facilitate technology-enhanced experiences that address content standards and student technology standards.	A. Teachers **identify** technology-enhanced experiences related to the subject area.	A. Teachers **align** learning activities with curriculum standards and **identify related technology resources** to support content learning.	A. Teachers **know how to facilitate learning experiences that integrate both content and technology standards** to improve student academic achievement and technology literacy.	A. Teachers **know how to facilitate learning experiences that integrate technology** to improve student academic achievement and technology literacy by connecting curriculum standards with technology standards **across subject areas and grade levels.**
B. Use Technology to support learner-centered strategies that address the diverse needs of students.	B. Teachers **identify and use grade-level appropriate content resources** using technology as a mode of presentation.	B. Teachers **select and use** technology resources and content-specific tools (e. g., simulations, mathematical software, Web tools) that support learner-centered strategies and address the diverse needs of learners.	B. Teachers **apply strategies for engaging students with diverse needs**, using a variety of instructional and grouping strategies (e. g., whole group, collaborative, individualized) and supporting individual learner needs with specialized technology resources for content learning	B. Teachers **know how to use a variety of instructional and grouping strategies** (e. g., whole group, collaborative, individualized) to support learner-centered activities that integrate technology resources and engage students with diverse needs in learning across content areas and grade levels.
C. Apply technology to develop student's higher order skills and creativity.	C. Teachers **identify activities** in which their students can apply higher order thinking skills	C. Teachers **select** and use **technology resources to facilitate student use of higher order thinking skills** (e. g., problem solving, critical thinking, informed decision making, knowledge construction, creativity) **through team and individual activities.**	C. Teachers **identify strategies for student use of technology designed to facilitate higher order thinking skills** (e. g., problem solving, critical thinking, informed decision making, knowledge construction, and creativity) **focused on curriculum-related goals.**	C. Teachers **know how to** implement learning activities that **apply technology to promote student engagement in analysis, synthesis, interpretation, and creation of original products.**
D. Manage student learning activities in a technology-enhanced environment	D. Teachers **manage strategies for use, care, and sharing** of technology resources to students.	D. Teachers **know how to select and use** technology resources that develop student content area knowledge and technology literacy.	D. Teachers **apply technology-based strategies** to collect resources that develop content-area knowledge and technology literacy.	D. Teachers **facilitate student use of technology** to address social needs and cultural identify and promote interaction with the global community.

NETS for Teachers IV

	Novice	Basic	Proficient	Advanced
A. Apply technology in assessing student learning of subject matter using a variety of assessment techniques	A. Teachers **apply technology for record-keeping** resources for student grades **and for developing assessment resources** such as tests and rubrics	A. Teachers **select and use specialized software** (e. g., electronic gradebooks, assessment software, check sheets, performance profiler, performance rubrics) **to collect and report data on student learning** in the content areas.	A. Teachers **evaluate specialized software** and applications to collect, analyze, and report data: create graphs of class and individual performance data; identify areas of individual student strengths and weaknesses in content-area learning; **and use results to improve teaching** strategies	A. Teachers **collect, analyze, and report data** on student performance from multiple measures over time, and apply strategies for **use of data to improve planning, instruction, and management.**
B. Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning	B. Teachers **use technology resources to collect and analyze student performance data** from a variety of resources, identify strengths and areas of weakness, and adjust teaching to improve student learning.	B. Teachers **know how to use specialized software** (e. g., electronic gradebooks, assessment software, check sheets, performance profiler, performance rubric) **to collect data on student learning.**	B. Teachers **know how to** analyze, interpret, represent, and communicate results from specialized software regarding student content learning.	B. Teachers **know how to sue results of analysis** to inform planning for instructional practice **across content areas and to maximize student learning.**
C. Apply multiple methods of evaluation to determine students' appropriate use of technology resources of learning, communication, and productivity.	C. Teachers **identify strategies for assessing students' uses of technology resources.**	C. Teachers **identify multiple measures** for assessing specific applications of technology resources	C. Teachers **design formative and summative assessment** strategies for evaluating appropriate student use of technology for content-area learning, communication, and productivity.	C. Teachers **know how to guide students in applying self-assessment and peer-assessment strategies** to evaluate a variety of technology products and the processes used to create those products across content areas and grade levels (e. g., electronic portfolios.

NETS for Teachers V

	Novice	Basic	Proficient	Advanced
A. Use technology resources to engage in ongoing professional development and lifelong learning	A. Teachers **know common uses** of information and communication technology in daily life, some **advantages and disadvantages** of technology use, and can identify technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.	A. Teachers **design a plan, based on self-assessment, for their own professional growth** to stay abreast of new and emerging technology resources that support enhanced learning for PK-12 students.	A. Teachers **identify and engage in technology-based opportunities for professional education and lifelong learning** including use of distance education	A. Teachers **identify emerging technologies that could support ongoing professional development and lifelong learning,** such as virtual collaborations with peers and experts, and develop plans for long-term professional growth supported by emerging technologies.
B. Continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.	B. Teachers **know how navigate** the Web and **use technology resources** such as CD-ROMS (reference or educational software) and common databases (library catalogs, online archives) **to inform decisions regarding the use of technology to support student learning.**	B. **Teachers apply online and other resources to** facilitate higher order and complex thinking skills, including problem solving, critical thinking, informed decision making, knowledge construction, and creativity support problem solving and related decision making for maximizing student learning.	B. Teachers **know how to conduct advanced Internet searches** using Boolean logic and other advanced search strategies; and **how to evaluate information from a variety of sources to inform decisions** regarding the use of technology in support of student learning.	B. Teachers **know how to locate, select, and use advanced technology resources** such as expert systems, intelligent agents, and real-world models and simulations to inform decisions regarding the use of technology in support of student learning.
C. Apply technology to increase productivity.	C. Teachers **know how to** create retrieve, save, use spell check and edit word processing documents, spreadsheets, and presentations.	C. Teachers **know how to use common software features** such as menus and toolbars to format (i. e., grammar check, thesaurus, etc.) word processing documents, spreadsheets, and presentations.	C. Teachers **know how to design, create, and populate a** database and perform queries to process data and report results inform decisions regarding the use of technology in support of student learning.	C. Teachers **know how formulate an hypothesis or research question** regarding the use of technology in support of student learning, and design, create and populate a database to process data and report results.
D. Use technology to communicate and collaborate with peers, parents and the larger community in order to nurture student learning.	D. Teachers **know how to** manipulate pictures, images, and charts in word processing documents, spreadsheets and presentations designed to communicate with peers, parents, and the larger community and nurture student learning.	D. Teachers **identify and use common software and utilities** used to create, open, and edit pictures, images, and charts for use in models, publications, and other professional works in word processing documents, spreadsheets and presentations to develop documents that effectively communicate with peers, parents, and the larger community and to nurture student learning.	D. Teachers **describe and apply advanced software features** (e. g., style sheets, mail merge, slide master, etc.) templates and styles to improve the appearance of word processing documents, spreadsheets and presentations used in communications with parents, professional colleagues, school administrative leadership and others.	D. **Teachers know how to read, send, and manage** electronic messages and distribution lists; and how to use advanced multimedia authoring tools to **plan, create, and edit** models, publications, and other professional works developed in collaboration with peers to communicate with peers, parents, and the larger community in order to nurture student learning.

NETS for Teachers VI

	Novice	Basic	Proficient	Advanced
A. Model and teach legal and ethical practice related to technology use.	A. Teachers **identify legal and ethical issues** related to use of information and communication technology (e. g., privacy, security, copyright, file-sharing, plagiarism)	A. Teachers **describe content of acceptable use policy** designed to address issues related to legal and ethical use of information and communication technology for the school and classroom (e. g., privacy, security, copyright, file-sharing, plagiarism)	A. **Teachers discuss issues related to legal and ethical use of information and communication technology** (e. g., privacy, security, copyright, file-sharing, plagiarism) and **identify strategies for implementing acceptable use policies** in the classroom and school.	A. **Teachers discuss the costs and consequences** of illegal and unethical use of information and computer technology (e. g., hacking, spamming, consumer fraud, virus setting), the **implications of emerging technologies** for acceptable use policies and the **importance of following the guidelines for acceptable use.**
B. Apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities	B. Teachers **identify titles or locations of software and web resources** that support communication, collaboration, personal productivity, and lifelong learning for all students.	B. Teachers **discuss how the digital divide affects student learning** and how information and communication technology can support collaboration, personal productivity, and lifelong learning for all students.	B. Teachers **know how to apply** technology resources in the school to help close the digital divide and discuss how information and communication technology can **support** collaboration, personal productivity, and lifelong learning for all students.	B. Teachers **know** current trends in information and communication technology and **discuss** how emerging technologies could help close the digital divide and support collaboration, personal productivity, and lifelong learning for all students.
C. Identify and use technology resources that affirm diversity	C. Teachers **identify technology resources and activities** that help children develop accepting attitudes toward students of different backgrounds, races, religions, or national origins	C. Teachers **describe grouping strategies and technology enhanced global resources** to help students recognize positive characteristics and likenesses among people across the globe.	C. Teachers **know how to facilitate** students' sue of technology that addresses their social needs and cultural identity and promotes their interaction in the global community.	C. Teachers **evaluate accuracy, relevance, appropriateness, comprehensiveness and bias of electronic resources** when selecting technology-based materials or Web sites for use by students.
D. Promote safe and healthy use of technology resources	D. Teachers **identify health and safety issues** relating to use of information and communication technology (e. g., electrical wires, rolling chairs, eye strain, poor posture)	D. Teachers **model and identify safe and responsible classroom procedures** to avoid health or safety risks, and post them as appropriate in the classroom	D. Teachers **identify and enforce classroom procedures** that guide students' safe and healthy use of technology	D. Teachers **identify and advocate for technology resources to benefit all students** and specific technology resources for students with special needs.
E. Facilitate equitable access to technology resources for all students	E. Teachers **identify issues related to equitable access** to technology in school, community and home environments for all students.	E. Teachers **exhibit awareness of guidelines** for legal and professional responsibilities for students needing assistive technology	E. Teachers **arrange for equitable assess** to appropriate technology resources that enable students to engage successfully in learning activities within the classroom	E. Teachers **advocate for equitable access** to technology for all students in their schools, communities, and homes.

SECTION IV

I. Infrastructure Rubric

RESOURCES

- **Hardware Evaluation Form**
- **Electronic Communications Overview and Security Issues**
- **Electronic Communication Implementation**
- **Internet Use**
- **School Internet Use Agreement**
- **Internet Regulations**
- **Internet Use Agreement**
- **Software Copyright Agreement**
- **Building Modification Guidelines**

I. Infrastructure Rubric

Assess building/site needs in the following areas: (*See Appendix XYZ SB Doc.1*)

1. Internal – network design
2. External – internets
3. Presentation
4. Atmosphere Control
5. Space Design
6. Security

Infrastructure: Network, Hardware, Software

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies accurate and complete inventory of hardware and software needed to support the implementation of the plan. Maps the infrastructure. Includes a timeline in which the plan is to be implemented.	Missing or fails to complete an inventory of hardware and software needed to support the plan. Lack of recordkeeping and licensing requirements are not met. Missing or fails to map the infrastructure. Missing or fails to develop a timeline in which the plan is to be implemented.	Completes an assessment to determine site needs. Identifies a technology inventory including hardware, software, and current licensing. Licensing is current. Provides a map of the networking infrastructure currently in place. Identifies a standard for hardware, software and network acquisitions. Compiles a timeline in which to implement the plan.	Completes an assessment to determine site needs and possible site limitations. Clearly identifies a complete technology infrastructure inventory. Licensing is current and a regular schedule for auditing, updating and maintaining licensing is in place. Provides an accurate and detailed map of networking and telecommunications infrastructure to include physical plant modifications needed to implement the plan. Standards for all levels of technology acquisitions are well documented and updated regularly. Acquisitions are aligned to site education standards. Follows a timeline which includes upgrade schedule and plan evaluations.

HARDWARE EVALUATION FORM

Date: _____

School: _____ Phone: _____

Name of Person Completing the form: _____

We recently purchased a: _____ For this Cost: $ _____

From: Store: _____

Located at: Address: _____

Phone: _____

The salesperson's name was: _____

The advantages of this product are:

The disadvantages of this product are:

In the process of buying and using this product, we learned the following, which will help other schools in their decision-making process:

We recommend that other diocesan schools buy this product:

We would not recommend that other diocesan schools buy this product:

ELECTRONIC COMMUNICATION OVERVIEW AND SECURITY ISSUES

Proper Use

The e-mail, voice mail, and facsimile systems are Diocesan property and are intended for Diocesan business. The systems are not to be used for employee personal gain, or illegal activities. All data and other electronic messages within these systems are the property of the Diocese of Orange, but the employee should not expect that any communications made are confidential or private. The Diocese, in its sole discretion, reserves the right to access, review and save any communication, whether "personal" or work-related. See Section IX. Permission for limited and brief personal use of e-mail, voice mail, and facsimile must be obtained by the staff person's office director.

Prohibited communications

Examples of prohibited communications include, but are not limited to:

1. Communications, material, information, data or images prohibited by legal authority as obscene, pornographic, sexually explicit or offensive, threatening, abusive, harassing, discriminatory, or in violation of any Diocesan policy or contrary to the mission or values of the Diocese, including disparagement of others based on race, national origin, marital status, sex, age, disability, pregnancy, religious or political beliefs or any other condition or status protected by federal, state or local laws.
2. Communications, materials, information, data or images that may constitute verbal abuse, libel or slander, defamation, fraud or misrepresentation or trade disparagement of users, customers, clients, competitors, vendors or any other person or entity.
3. Accessing, viewing, printing, storing, transmitting, disseminating or selling any information protected by law or subject to privilege or an expectation of privacy.
4. Accessing, creating, distributing or soliciting sexually oriented messages or images, unwelcome sexual advances, requests for sexual favors or other unwelcome conduct of sexual nature, including jokes.
5. Any attempts to access, monitor, or disrupt information that is restricted, confidential or privileged and to which the individual has not expressly been authorized access.
6. The intentional or diligent introduction of a computer virus into the system or causing damage to data or the system.
7. Granting access to unauthorized persons, either by intentional action such as disclosure of account information or unintentional action such as failure to log off computer system or lock computer system.
8. Unauthorized removal, deletion or duplication of data, software or hardware upon a user's termination or departure from the Diocese.
9. Violations of software license agreements.
10. Development or sue of unapproved mailing lists
11. Use of technology systems for private business purposes unrelated to the business of the Diocese of Orange.
12. Academic dishonesty.

Sensitive Issues

The e-mail, voice mail and facsimile systems should not be used to transmit sensitive material such as personnel decisions, reprimands or material that is confidential in nature. Avoid language that is insensitive, insulting, offensive, derogatory, harassing, or discriminatory. If you are in doubt whether electronic communication is the proper medium for a message, use another form of communication.

Virus Protection

Computer viruses pose a serious threat to the integrity of both the computer technology and data assets of the Diocese. Computer viruses are designed to be destructive to both computer systems and data. In a networked environment such as exists in the pastoral center, the inadvertent introduction of a virus to one desktop computer system could result in the infection of every system connected to the network in a matter of moments. Users shall not change their systems configuration or take other steps to defeat virus protection devices or systems.

Individual employees are responsible for verifying that disks used or received from outside computers are scanned for viruses prior to their use in Diocesan computers. All workstations and servers should be updated with the latest anti-virus protection program and data files. Contact the Office of Information Services for assistance in having the diskettes checked. The current standard anti-virus program is "Virus Scan" from Network Associates (formally McAfee) or Norton Anti-Virus from Symantec.

Backup procedures

Computer software data files are to be backed up on a regular schedule. In general, this consists of full weekly backups of all data, and differential daily backups of data to appropriate media (floppy, tape, CD-ROM). Typically, detailed backup procedures are documented for the software programs you are using. The Information Services office has detailed backup procedures documented primarily for the PDS line of software programs. These procedures can be applied to any and all computer systems and networks.

Software applications must be closed (exited) at night so that no "open files" exist. Open files cannot currently be backed up.

ELECTRONIC COMMUNICATION IMPLEMENTATION

Introduction

Electronic communication provides an avenue for enhanced, efficient, and economical communication with ones constituents. It should be viewed as an effective companion to personal contact, but should not replace direct contact with constituents. Electronic modes of communication facilitate the timely transfer of information with responses not hindered by constraints such as time zone(s), office hours, and/or availability of the sender/receiver. When selecting an electronic communication system, consideration must be given to the ability of the service to:

- Quickly connect with the larger community/church/those outside of your system;
- Respond to the local diocese with needs ranging from rural areas to the urban areas;
- Respond to a wide user range of age, skill, and interest, without losing anyone;
- Minimize the need for new hardware purchase, utilizing existing equipment were possible.

Additional consideration should be given to a systems ease of use, making each person an independent user; ability to provide a closed e-mail system to avoid junk mail and advertisements; ability to generate group mail and addresses; provide competitive costs; and Internet access if needed. The following list is offered as beginning discussion points for developing an electronic communication system.

Areas to be addressed in Developing an Electronic Communication System:

- The Principal is responsible for policy/procedure development including the mandated ethical usage agreements/information
- Identify person(s) who will be responsible for managing the electronic communication system. Finally, the role should be responsible for general troubleshooting.
- Determine who will have access to the communication system: will all users have equal access to all types of the information and equal access in sending and receiving information?
- Determine what type of information will be shared via the communication system and in what format
- Establish a uniform system for user identification (log on passwords); and how will it be published. It is recommended that the system be based upon role/job function vs. personal names
- Determine fees, which are associated with the electronic communication system(s) being considered and how are they assessed.
- Determine what type of security level is provided.
- Establish a process for new users to come on line; what type of assistance/setup is needed
- Conduct adequate training sessions
- Determine if there are others outside the organization that you need to be connected with.

Establish process for making necessary changes in the system due to personnel transitions (Changing identifications; publishing new listings; notification of other users)

INTERNET USE

The use of the Internet during work hours should be limited to those subjects that are directly related to an individual's job duties for the Diocese of Orange and approved curricular focus from the principal. Employees are advised to exercise discretion when using the Internet for work-related business since individuals outside the organization can monitor any Internet usage. The Principal will monitor computers connected to the School.

The primary function of the computer system is to assist in service delivery to our employees and classrooms. Allowing employees to spend work time learning how to use and conduct research on the Internet will ultimately result in improved performance as employees for Diocese of Orange. To that end, employees may access web sites for work-related use after business hours. This use is limited to web sites that are considered business/school appropriate and employees are expected to exercise good judgment when accessing sites. Employees may not intentionally access any site that is inappropriate for the Diocese of Orange, or which could cause embarrassment to the organization or the employee. If this occurs, employees are expected to notify their Supervisor. The Diocese of Orange is held to a high standard of scrutiny and ethical behavior. Some examples of inappropriate sites include adult entertainment, sexually explicit material, web sites promoting violence or terrorism, illegal use of controlled substances (drugs) and intolerance of other people/races/religions, etc.

Files downloaded from the Internet should only be work-related. If such files need to be taken off premise for any reason, the preferred method is to electronically e-mail the file(s) to the other location if possible. If that is not possible, files can be transferred to floppy disk. Employees who engage in inappropriate or excessive non-work-related use of Internet are subject to discipline pursuant to Diocesan personnel policies.

SCHOOL INTERNET USE AGREEMENT

PLEASE READ THIS DOCUMENT CAREFULLY.

Internet access is now available to students and teachers at _____ as part of the Diocese of Orange. We are very pleased to bring this access to _____ and believe the Internet offers vast, diverse, and unique sources to both students and teachers. Our goal in providing hits service to teachers and students is to promote educational excellence in schools by facilitating resource sharing, innovation, and communication.

The Internet is an electronic highway connecting thousands of computers and millions of individual subscribers all over the world. Students and teachers have access to the following:

1. Information and new developments in the areas of math, science, humanities, the parents, etc., as well as the opportunity to correspond with scientists, mathematicians, artists, poets, business persons, government agencies, and specialized researchers.
2. Public domain software and shareware of all types.
3. Discussion groups on a wide range of topics such as different cultures, foreign nations, environment, music, art, politics, etc.
4. Access to many worldwide library catalogs and databases resources such as university libraries and museums;
5. Exchange of ideas and classroom projects with people from all over the world through the use of electronic mail.

With access to computers and people all over the world, also comes the availability of material that may not be considered to be of educational value in the contest of the school setting. _____ has taken precautions concerning access to inappropriate materials. On a global network, however, it is impossible to control all materials, and an industrious user may discover inappropriate Internet usage. We at _____ firmly believe that the valuable information and interaction available on this worldwide network far outweighs the possibility that users may procure material, which is consistent with the educational goals of the Diocese.

The internet access is coordinated through a complex association of government agencies and regional and state networks. In addition, the smooth operation of the network relies upon the proper conduct of the users who must adhere to strict guidelines. In general, this requires Christian, ethical and legal utilization of the network resources. If a _____student user violates any of the provisions of Diocesan policy, the student's parent/guardians will be notified, and the student's Internet access may be terminated with the possibility of future access denied. The signatures at the end of this document are binding and indicate the parties who signed have read the terms and conditions carefully and understand the significance.

INTERNET REGULATIONS GRADES K – 3RD

INTERNET UNDERSTANDINGS ~ Users are expected to abide by the terms, conditions and regulations of the Diocese and _____.

I understand the importance ob being polite on the Internet, and I will not send inappropriate messages to anyone who may be using the system.

I understand that in order for all students in my class to have access to Internet, it is necessary that I not waste time while using the system.

I understand that if I am assigned a password, I will not share it with anyone.

I understand that I will not provide my personal name, address, or phone number or those of others to anyone on the Internet unless authorized to do so.

I understand that disciplinary measures may be taken if I engage in illegal activities through Internet access.

I understand that the same rules apply whether I am using the Internet at home or at school.

INTERNET USE AGREEMENT

I have read (or had explained to me) and understand the above agreement. I further understand any violation of the terms, conditions, and regulations are unethical and may constitute a criminal offense. Should I commit any violations, my access privileges may be revoked, school disciplinary action may be taken, and/or appropriate legal action taken.

STUDENT'S NAME _____

USER SIGNATURE _____ **DATE** _____ **GRADE** _____

INTERNET REGULATIONS GRADES 4TH – 12TH

INTERNET UNDERSTANDINGS ~ Users are expected to abide by the terms, conditions and regulations as attached.

I understand the importance of being polite and refraining from sending abusive or offensive messages to others.

I understand that accessing the Internet is a privilege granted for the primary purpose of conducting research, completing class assignments, and gaining familiarity with evolving electronic communications.

I understand that if assigned an Internet password, good security practices dictate confidentiality at all times. I will not share with anyone.

I understand that electronic mail (e-mail) is not guaranteed to be private. People who operate the system may have access to all mail.

I understand that I must not reveal my personal address or phone number or those of others over the Internet.

I understand that I will be financially responsible for any unauthorized commitments I make through the Internet.

I understand and respect the right to acknowledgment, the right to privacy, and the right of all authors and publishers to determine the form, manner and terms of publication and distribution of works in any medium.

I understand that in order to assure system wide security, each user of shared computer resources must follow designated security guidelines.

I understand that actions I may take such as plagiarism, invasion of privacy, unauthorized access, violation of copyright laws as well as other illegal activities may be grounds for disciplinary and/or appropriate legal action.

I understand that the same rules and responsibilities apply whether I am using the Internet at home or at school.

STUDENT INTERNET USE AGREEMENT

I have read (or had explained to me) and understand the above agreement. I further understand any violation of Diocesan policy is unethical and may constitute a criminal offense. Should I commit any violations, my access privileges may be revoked, school disciplinary action may be taken, and/or appropriate legal action taken.

STUDENT'S NAME (PLEASE PRINT) _____

USER SIGNATURE _____ **DATE** _____ **GRADE** _____

INTERNET USE AGREEMENT - PARENT / GUARDIAN

IMPORTANT: PLEASE READ CAREFULLY BEFORE SIGNING:

As the parent or guardian of this student, I have read the expectations for Internet use. _____ has taken precautions to eliminate inappropriate materials. However, I also recognize it is impossible for _____ to restrict access to all controversial materials, and I will not hold them responsible for materials acquired through the use of the Internet.

Furthermore, I accept full responsibility for supervision if and when my student's use is not in a school setting. I hereby give my permission to provide access for my student on the Internet and certify that the information contained on this form is correct. I exempt _____ and agree to hold it harmless from financial responsibility if my student incurs any financial liability, and thus I accept responsibility if such financial commitments are made.

Student's Name: _____

Identify who explained this agreement to the student: (***Please print***) _____

My student may have access to the Internet. ☐ **YES** ☐ **NO**

Parent / Guardian's Name: (***Please print***) _____

Signature: _____

Date: _____

SOFTWARE COPYRIGHT AGREEMENT

EMPLOYEE

Name: (Please print)

Last First

School:

City

GENERAL STATEMENT

It is the intent of the Office of Catholic Schools and the employee to adhere to the provisions of copyright laws in the area of microcomputer programs. The procedures listed below represent a sincere effort to operate legally.

Licensed Software

The Diocese of Orange complies with all software copyrights and terms of all software licenses. Diocesan employees may not duplicate licensed software or related documentation. Any such duplication may subject employees and/or the Diocese to both civil and criminal penalties under the United States Copyright Act. Employees who engage in such activity are also subject to discipline pursuant to Diocesan personnel policies. Diocesan-owned software may not be loaded on to external systems unless the license agreement allows such use and the Director of Information Services approves. Also see section, **SOFTWARE USE AND THE LAW. (The following paragraph)**

In addition to authorized roles regarding software, the legal implications for improper handling of software can be significant**:**

According to the U. S. Copyright Law, illegal reproduction of software can be subject to civil damages of as much as $100,000 per work copied, plus criminal penalties, including fines and imprisonment. The Diocese of Orange does not condone the illegal duplication of software or any other form of criminal activity. Employees who engage in such activity are also subject to discipline pursuant to Diocesan personnel policies.

All software to be used on Diocesan computer systems is to be installed by the primary person responsible for the computer systems. Users are prohibited from installing software brought in from home, as this is often a copyright violation. Conversely, installing software intended for use on a Diocesan system on a home computer is a violation of copyright and is expressly prohibited unless authorized in the licensing agreement with the software manufacturer.

Call the Director of Information Services at 714-282-#### if you would like more information on software use and the law. At the Pastoral Center, a member of the Information Services office will install the software. Users are prohibited from installing or running software on Diocesan systems without approval of the proper designated individual within the Office of Information Services.

The above named employee will foster and uphold the following policy statements in an effort to personally comply with copyright laws and to prevent such illegal activities by others;

1. The ethical and practical problems caused by software piracy will be taught in all schools and by all employees.
2. Illegal copies of copyrighted programs will not be made or used by employees.
   The definition of "illegal copies" includes (but is not limited to) making or using multiple copies of a program where persons other than the legal owner are using the program.
   The "legal owner" is always an individual unless a site license or a multi-user version of a program has been purchased.

It is not an infringement for the owner of a computer program to make or authorize the making of another copy of that computer program if:

a. The new copy is created as an essential step in the utilization of the computer program in conjunction with a machine or,
b. The new copy is for archival purposes only and all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful (Public Law 96-517, Section 7B)

3. When software is to be used on a disk or machine sharing system, reasonable efforts will be made to secure this software from being copied.

PERSONAL STATEMENT

I, the above named and undersigned, agree to uphold and foster the above statements regarding software copyright issues. I understand that the legal or insurance protection of the school or educational entity will not be extended to the employee who violates copyright laws. Furthermore, participation in the Department of Catholic Schools training classes signifies my acceptance of this software copyright agreement.

Signature Date

BUILDING MODIFICATION GUIDELINES

As a site plans to integrate technology into their program, emphasis needs to be given to modifying existing space and facilities to accommodate technology. If a site is planning on new construction, the following points should be considered after you have the approval of the Office of Catholic Schools and the Diocesan Building Committee.

Building committees/commissions should be aware of the physical needs and utilities necessary to accommodate technology. A requirement for awarding construction jobs to an architect should be the awareness of the role of technology in education when:

Connectability

A. Internal – Network Design

- Provisions for transmitting data between stations: twisted pair, coax, fiber optic; best recommendations; 10BaseT 04 100Base (Fast Ethernet)
- In new construction, conduit needs to be laid so adding wire will be least expensive
- Analog and digital phone lines
- Face plates in each room to accommodate a variety of networking/wiring options
- Provisions for chosen network topology
- Location and selection of switches, routers, modems, etc.
- Location of equipment/wiring closets, etc.

B. External – Internets: Wide Area Network (WAN) and Intranets: Metropolitan Area Networks (MAN); how a site/diocese will connect between buildings and other remote sites needs to be considered when planning a WAN

- Provisions for Internet connections: direct or dial up or wireless
- Provisions for modems, modem servers, and dial servers
- Provisions for router options
- Provisions for Building to Building Links

C. Presentation

- Provisions for large screen color monitors with computer and VCR connections for instruction and presentations
- Provisions for LCD, DLP projection devices
- Provisions for room darkening for better display resolution
- Provisions for auditorium type screen/projection for large group presentations
- Provisions for flexible computer lab set up
- Provisions for adequate grounded electrical outlets, with options for expansion
- Provisions for audio and video conferencing
- Provisions for adequate sound systems

D. Atmosphere Control

- Provisions for climate control for air conditioning, heat, and dust control in all areas where advanced technology will be used
- Provisions for adequate and appropriate lighting
- Provisions for maker board to decrease dust

E. Space Design

- Provisions for furniture which will accommodate all technologies correctly
- Flexible spacing which will allow for a variety of arrangements using a variety of technologies
- Equipment positioning/location for the age-appropriateness of the user/learner
- Provisions for adding future networks and hardware with minimal redesign
- Adequate and expandable storage options

F. Security

- Provisions for the safe use of all equipment/services
- Provisions for the security of all users, data and information
- Provisions for the security of all connect sites/webs to the LAN

Knowledge of network fundamentals and rules is essential prior to decisions. (CACE Technology Guide, 1996)

SECTION V

J. Technical Support Rubric

J. Technical Support Rubric

1. Create a list of technical support personnel and detail maintenance and repair and responsibility as a resource
2. Evaluate and update list annually

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies strategies for technical maintenance and support.	Missing or fails to identify technical support strategies and guidelines. Missing or fails to address maintenance issues.	Identifies current needs assessment strategies regarding technical support and maintenance. Identifies strategies for basic troubleshooting regarding technology issues. Identifies support system, process, and schedule for maintenance.	Identifies current and on-going needs assessment strategies regarding technical support, assistance and maintenance. Seeks advice and support from experts. Identifies strategies to individualize technology support training to faculty and staff in a continuous and on-going fashion. Clearly identifies support system, process, schedule, access, and protocol for maintenance. Accurate records and documentation of repair and maintenance are accessible and clearly identified. Engages in continuous and on-going monitoring of the technological budget to maintain and implement the school's plan.

SECTION VI

K. Funding and Budget Rubric

RESOURCES

- **Financial Implications**

K. Funding and Budget Rubric

1. Annually create budget to support technology and sustain technology use in school
2. Identify established and potential funding sources for the present and in the future

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies costs and potential funding sources for supporting the infrastructure, hardware, technical support, software, and professional development needed to support the technology plan.	Missing or fails to identify costs and potential funding to support the technology plan. No budget or funding exists for technology.	Identifies current needs assessment strategies for all technology funding. Identifies the current budget for implementing each component of the technology plan. Identifies all costs associated with implementing each component of the technology plan. Identifies potential funding to support the components of the technology plan presently and in the future (three to five years).	Identifies current and on-going needs assessment strategies for all technology funding. Clearly and accurately identifies present cost, the current budget and potential funding for the implementation of each component of the technology plan. Identifies schedule for audit and review of budget for technology. Recordkeeping is regularly maintained and data is stored in an assessable location. Considers options for reducing costs and maximizing the utilization of the technology budget. Evidence of continuous and on-going effort to obtain regular as well as alternative funding for technology through grants, partnerships, alumni foundations, federal grants, etc.

FINANCIAL IMPLICATIONS

I. **Introduction**

The advent of technology into education prompts a "rethinking" of school financing, especially in the development of local/Diocesan budgets. While technology may permit a more efficient exercise of work, adequate planning must occur to provide the necessary financing for hardware and software acquisition, maintenance, security, utility charges, staff training, and future purchases. It prompts schools to "think new thoughts", and often to reallocate financial resources to successfully accomplish school/Diocesan goals. The following assumptions and list of funding sources are offered as beginning points for acquiring the necessary resources.

II. **Assumptions**

The Diocesan/site/system:

a. Employs appropriate personnel to implement technology plan.
b. Allocates financial resources for technology through annual line item designation in the budget, enabling staff to plan and prioritize building modifications, marketing, security, acquisition of hardware, software, and training.
c. Has an annual budget allocation for equipment upgrade, repair, and maintenance.
d. Attempts to fund innovative individual teacher projects that utilize technology.
e. The Diocesan/site/system allocates funding for telecommunications line charges and services fees.
f. Take advantage of discounted prices on hardware and software provided by central purchasing or other cooperative purchases.
g. Assures fair and equitable assignment of funds among building, grade levels, and subject areas as well as a plan for redeployment of equipment throughout the system.
h. The Media Center budget has separate line items and sufficient amounts budgeted for:
    i. Software
    ii. Hardware
    iii. Equipment repair
    iv. Equipment and software upgrades
    v. Telecommunications costs
    vi. Network installation and maintenance.

III. Funding Sources

a. Grants (Diocesan program; local or national foundations
b. Business partnerships / "School to Work" agreements
c. Title VI funds
d. Support levies
e. Computer fees
f. Pilot projects
g. Lease/purchase plans
h. Service/Parent Association donations
i. Individual donors
j. Alumni reunion gifts
k. Workshop/evening class offerings
l. Fundraisers
m. Corporate matching programs
n. Student "Technology Ambassador"

SECTION VII

L. Monitoring and Evaluation Rubric

L. Monitoring and Evaluation Rubric

Description	Does Not Meet Standards	Meets Standards	Exceeds Standards
Identifies an evaluation process to determine the effect of plan implementation on student achievement. Identifies an evaluative process that enables the school to monitor implementation of the plan so that any necessary mid-course correction can be made.	Missing or fails to identify an evaluation process to determine the effect of plan implementation on student achievement. Missing or fails to identify an evaluative process that allows for mid-course corrections.	Identifies an evaluation process to determine the effect of the technology plan on student achievement. Design a schedule for evaluating the effect of the plan implementation so that adjustments can be made to the plan as deemed necessary. Submit annual reviews of the technology plan to the local arch/diocese.	Identifies an evaluation process to determine the specific effects of the technology plan on student achievement. Identifies areas of the technology plan needing attention to further address student needs and achievement. Design a schedule that regularly evaluates the effect of the plan implementation so that adjustments to the plan can be made in a timely manner. Submit annual reviews of the technology plan to the local arch/diocese within the timelines given.

CHECKLIST OF TECHNOLOGY COMPONENTS

Use this checklist to determine whether the school Diocesan education technology plan includes all the components necessary for student-centered learning.

G. Curriculum

- ☐ Does this component include clear goals and a realistic strategy for using telecommunications and technology to improve teaching and learning as described in the Diocesan comprehensive improvement plan?
- ☐ Does the component include a timeline and benchmarks for implementing the strategies?

H. Professional Development

- ☐ Does this component define the professional development needs of teachers, administrators, and technical support staff so that the strategies for using telecommunications and technology to help students meet content standards can be implemented and the curricular goals can be achieved?
- ☐ Does the technology plan include a timeline and benchmarks for implementing the planned strategies?

I. Infrastructure, Hardware, Technical Support and Software

- ☐ Does this component include a timeline and detailed list of the infrastructure, hardware, technical support, and software needed to support implementation of the plan?
- ☐ Does the component include a timeline and benchmarks for obtaining the identified infrastructure, hardware, technical support, and software?

K. Funding and Budget

- ☐ Does this component include a budget that identifies the costs and potential funding sources for supplying the infrastructure, hardware, technical support, software, and professional development needed to support implementation of the plan?

L. Monitoring and Evaluation

- ☐ Does this component include a monitoring process that enables the Diocese to monitor implementation of the plan so that any necessary mid-coarse corrections can be made?
- ☐ Does this component include an evaluation process to determine the effect of plan implementation on student achievement?
- ☐ Are there people designated to take responsibility for monitoring and evaluation?
- ☐ Does the component include a regular schedule for monitoring and evaluation?

GUIDE FOR TECHNOLOGY EVALUATION

1. Describe the school's effort for enabling students and teachers to use computers as tools for decision-making, critical thinking and problem solving.

2. Describe ways students are using technology to enhance reading, writing and math skills

3. Describe training that helps teachers use technology to facilitate learning.

4. Describe the use of technology for classroom management e. g., record keeping (progress reports, attendance), journal entry and test generation.

5. Assess the effects of technology. (1) no effect (2) some effect (3) effective (4) very effective

_____on academic achievement

_____on the teacher's role

_____on the attitudes of both students and teachers

_____on student-lead and self-motivated learning

_____on classroom structure

6. Review steps to help students and teachers integrate verbal and visual learning and become multi-media literate and Web 2.0 literate.
   NOTE: There is more technology literacy needed at this time and teachers need to be Web 2.0 literate so they can teach with the tools of Web 2.0 and to teach students the dangers in some of the Web 2.0 sites. Only being multi-media literate is not enough anymore.

7. What funding is available to support the current and future budget demands of technology?

BIBLIOGRAPHY

Foundation Documents for the Proposed Templates

1. CACE Technology Planning Guide
2. Education Technology Planning: A Guide for School Districts
3. No Child Left Behind State Technology Plan
4. National Educational Standards for Students: Connecting Curriculum and Technology
5. California Technology Assistance Project (CTAP)
6. E Rate Guidelines
7. San Francisco Archdiocese, Department of Catholic Schools Technology Plan: User Guide
8. San Francisco Archdiocese, Department of Catholic Schools Technology Plan
9. Diocese of San Bernardino, Office of Catholic Schools - Master Technology Plan
10. Technology Needs Assessment (CACE)

ADDENDUM

- **E-Rate Discounts for Schools and Libraries**
- **E-Rate Regulation Information**
- **Children's Internet Protection Act (CIPA) Information**

E-RATE REGULATION INFORMATION

E-RATE DISCOUNTS FOR SCHOOLS AND LIBRARIES

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This document summarizes the process schools and libraries follow to apply for and receive E-rate discounts. Each of the steps in this process — preparing a technology plan, opening the competitive process (Form 470), seeking discounts on eligible services (Form 471), confirming the receipt of services (Form 486), and invoicing for services (Forms 472 and 474) — is covered in more detail below. However, this document is not intended to be a substitute for form instructions or the guidance materials posted on the SLD section of the USAC website.

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- • A professional development strategy to ensure that staff knows how to use these new technologies
- • An assessment of the telecommunication services, hardware, software, and other services needed
- • A sufficient budget to acquire and support the non-discounted elements of the plan: the hardware, soft-ware, professional development, and other services that will be needed to implement the strategy
- • An evaluation process that enables the school or library to monitor progress toward the specified goals.

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- The applicant should carefully consider whether to receive discounts on bills or reimbursements for services paid in full.
- The applicant must save all competing bids for services to be able to demonstrate that the bid chosen is the most cost-effective, with price being the primary consideration. As with all documents that may be requested as part of an audit or other inquiry, such bids must be saved for at least five years after the last date of service delivered.

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funds available, FCC rules prescribe a filing window during which all Forms 471 that are filed are treated as if simultaneously received. (Applications that are not filed within that timeframe likely will not receive funding.) Once the filing window opens, the applicant can submit the Form 471 either online or on paper.

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service providers must submit the Form 474, Service Provider Invoice Form, to receive payment for the discounts they have provided. If applicants wish to request reimbursement for services for which they have already paid in full, they must submit the Form 472, Billed Entity Applicant Reimbursement Form. The SLD bases the billing mode for each funding request – discounting or reimbursement – on the first type of invoice it processes for payment. Note that payment will not be made on a Form 472 or a Form 474 received or postmarked after the deadline listed later in this document. Receipt of discounts or reimbursements completes the E-rate process.

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The Diocese of San Bernardino is fortunate to have one representative process the paperwork to receive E-Rate funding for our diocesan schools. Schools are asked to submit the appropriate information within a timely manner, and this representative follows the process and procedures within the timeline to attempt to secure E-Rate funds for that particular site.

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CHILDREN'S INTERNET PROTECTION ACT (CIPA) INFORMATION

Background

The Children's Internet Protection Act (CIPA) is a federal law enacted by Congress in December 2000 to address concerns about access to offensive content over the Internet on school and library computers. CIPA imposes certain types of requirements on any school or library that receives funding support for Internet access or internal connections from the "E-rate" program – a program that makes certain technology more affordable for eligible schools and libraries. In early 2001, the Federal Communications Commission (FCC) issued rules implementing CIPA.

What CIPA Requires

- Schools and libraries subject to CIPA may not receive the discounts offered by the E-Rate program unless they certify that they have an Internet safety policy and technology protection measures in place. An Internet safety policy must include technology protection measures to block or filter Internet access to pictures that: (a) are obscene, (b) are child pornography, or (c) are harmful to minors, for computers that are accessed by minors.
- Schools subject to CIPA are required to adopt and enforce a policy to monitor online activities of minors; and
- Schools and libraries subject to CIPA are required to adopt and implement a policy addressing: (a) access by minors to inappropriate matter on the Internet; (b) the safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications; (c) unauthorized access, including so-called "hacking," and other unlawful activities by minors online; (d) unauthorized disclosure, use, and dissemination of personal information regarding minors; and (e) restricting minors' access to materials harmful to them.

Schools and libraries are required to certify that they have their safety policies and technology in place before receiving E-rate funding.

- CIPA does not affect E-rate funding for schools and libraries receiving discounts only for telecommunications, such as telephone service.
- An authorized person may disable the blocking or filtering measure during any use by an adult to enable access for bona fide research or other lawful purposes.
- CIPA does not require the tracking of Internet use by minors or adults.

Where to Go for Additional Information and Assistance

For further information on CIPA or to apply for Universal Service, contact the Universal Service Administrative Company's (USAC) Schools and Libraries Division (SLD) at www.sl.universalservice.org. SLD also operates a client service bureau to answer questions at 1-888-203-8100 or via e-mail through the SLD Web site.