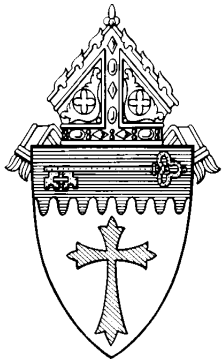
Elementary and Middle School Technology Curriculum Guidelines



Catholic Schools Office
Diocese of Erie
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Philosophy Statement

Current and emerging technologies play a prominent role in the education of the whole child. Access to technologies opens the door to the world beyond the classroom and increases the students' chances for success.

In our Catholic schools, students shall be instructed to utilize available technologies for education, communication, problem solving, analysis, and research in accordance with Catholic values, ethical principles, and moral decision making. Students shall have the opportunity to locate, process, and use information in order to improve their abilities to learn, communicate, reason, and work.

The curriculum of the school will be the foundation of incorporated technologies. The technologies will not be the driving force of the curriculum but rather the tools to achieve an integrated, cross-disciplinary learning environment that mirrors the real world.

Technology Curriculum Foundation

The technology curriculum of the Catholic Diocese of Erie includes concept formation and processes expressed by performance indicators. Each level of the curriculum has cross-curricular objectives that encompass hands-on approaches to student learning. The Catholic Diocese of Erie has adopted the ISTE National Education Technology Standards (NETS) and these are correlated with the Pennsylvania State Academic Standards for Science and Technology.

NETS for Students

Technology Foundation Standards for All Students

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

Technology Foundation Standards for Students

1 Basic operations and concepts
- Students demonstrate a sound understanding of the nature and operation of technology systems.
- Students are proficient in the use of technology.

2 Social, ethical, and human issues
- Students understand the ethical, cultural, and societal issues related to technology.
- Students practice responsible use of technology systems, information, and software.
- Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

3 Technology productivity tools
- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

4 Technology communications tools
- Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

5 Technology research tools
- Students use technology to locate, evaluate, and collect information from a variety of sources.
- Students use technology tools to process data and report results.
- Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

6 Technology problem-solving and decision-making tools
- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems in the real world.

Performance Indicators

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

The Profiles for Technology Literate Students provide performance indicators describing the technology competence students should exhibit upon completion of the following grade ranges:

- Grades PreK - 2
- Grades 3 - 5
- Grades 6 - 8
- Grades 9 - 12

These profiles are indicators of achievement at certain stages in PreK-12 education. They assume that technology skills are developed by coordinated activities that support learning throughout a student's education. These skills are to be introduced, reinforced, and finally mastered, and thus, integrated into an individual's personal learning and social framework. They represent essential, realistic, and attainable goals for lifelong learning and a productive citizenry. The standards and performance indicators are based on input and feedback from educational technology experts as well as parents, teachers, and curriculum experts. In addition, they reflect information collected from professional literature and local, state, and national documents.

Grades K - 2

Performance Indicators:
All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 2 students will:

K-2.1. Use input devices (e.g., mouse, keyboard, remote control) and output devices (e.g., monitor, printer) to successfully operate computers, VCRs, audiotapes, and other technologies. (1)

K-2.2. Use a variety of media and technology resources for directed and independent learning activities. (1, 3)

K-2.3. Communicate about technology using developmentally appropriate and accurate terminology. (1)

K-2.4. Use developmentally appropriate multimedia resources (e.g., interactive books, educational software, elementary multimedia encyclopedias) to support learning. (1)

K-2.5. Work cooperatively and collaboratively with peers, family members, and others when using technology in the classroom. (2)

K-2.6. Demonstrate positive social and ethical behaviors when using technology. (2)

K-2.7. Practice responsible use of technology systems and software. (2)

K-2.8. Create developmentally appropriate multimedia products with support from teachers, family members, or student partners. (3)

K-2.9. Use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories. (3, 4, 5, 6)

K-2.10. Gather information and communicate with others using telecommunications, with support from teachers, family members, or student partners. (4)

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

1. Basic operations and concepts
2. Social, ethical, and human issues
3. Technology productivity tools
4. Technology communications tools
5. Technology research tools
6. Technology problem-solving and decision-making tools

Grades 3 - 5

Performance Indicators:
All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 5 students will:

3-5.1. Use keyboards and other common input and output devices (including adaptive devices when necessary) efficiently and effectively. (1)

3-5.2. Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide. (1, 2)

3-5.3. Discuss basic issues related to responsible use of technology and information and describe personal consequences of inappropriate use. (2)

3-5.4. Use general purpose productivity tools and peripherals to support personal productivity, remediate skill deficits, and facilitate learning throughout the curriculum. (3)

3-5.5. Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom. (3, 4)

3-5.6. Use telecommunications efficiently and effectively to access remote information, communicate with others in support of direct and independent learning, and pursue personal interests. (4)

3-5.7. Use telecommunications and online resources (e.g., e-mail, online discussions, Web environments) to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom. (4, 5)

3-5.8. Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities. (5, 6)

3-5.9. Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems. (5, 6)

3-5.10. Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources. (6)

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

1. Basic operations and concepts
2. Social, ethical, and human issues
3. Technology productivity tools
4. Technology communications tools
5. Technology research tools
6. Technology problem-solving and decision-making tools

Grades 6 - 8

Performance Indicators:
All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 8 students will:

6-8.1. Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. (1)

6-8.2. Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society. (2)

6-8.3. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. (2)

6-8.4. Use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research. (3, 5)

6-8.5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum. (3 , 6)

6-8.6. Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom. (4, 5, 6)

6-8.7. Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom. (4, 5)

6-8.8. Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. (5, 6)

6-8.9. Demonstrate an understanding of concepts underlying hardware, software, and connectivity and of practical applications to learning and problem solving. (1, 6)

6-8.10. Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems. (2, 5, 6)

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

1. Basic operations and concepts
2. Social, ethical, and human issues
3. Technology productivity tools
4. Technology communications tools
5. Technology research tools
6. Technology problem-solving and decision-making tools

Grades 9 - 12

Performance Indicators:
All students should have opportunities to demonstrate the following performances. Prior to completion of Grade 12 students will:

9-12.1. 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. (2)

9-12.2. Make informed choices among technology systems, resources, and services. (1, 2)

9-12.3. Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole. (2)

9-12.4. Demonstrate and advocate for legal and ethical behaviors among peers, family, and community regarding the use of technology and information. (2)

9-12.5. Use technology tools and resources for managing and communicating personal/professional information (e.g., finances, schedules, addresses, and purchases, correspondence). (3, 4)

9-12.6. Evaluate technology-based options, including distance and distributed education, for lifelong learning. (5)

9-12.7. Routinely and efficiently use online information resources to meet needs for collaboration, research, publication, communication, and productivity. (4, 5, 6)

9-12.8. Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning. (4, 5)

9-12.9. Investigate and apply expert systems, intelligent agents, and simulations in real-world situations. (3, 5, 6)

9-12.10. Collaborate with peers, experts, and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce, and disseminate information, models, and other creative works. (4, 5, 6)

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

1. Basic operations and concepts
2. Social, ethical, and human issues
3. Technology productivity tools
4. Technology communications tools
5. Technology research tools
6. Technology problem-solving and decision-making tools

NETS for Teachers

Educational Technology Standards and Performance Indicators for All Teachers

The six standards areas with performance indicators listed below are designed to be general enough to be customized to fit state or diocesan guidelines and yet specific enough to define the scope of the topic. Performance indicators for each standard provide specific outcomes to be measured when developing a set of assessment tools. The standards and the performance indicators provide guidelines for teachers currently in the classroom.

1 TECHNOLOGY OPERATIONS AND CONCEPTS.
Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:

- demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students)
- demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

2 PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES.
Teachers plan and design effective learning environments and experiences supported by technology. Teachers:

- design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
- apply current research on teaching and learning with technology when planning learning environments and experiences.
- identify and locate technology resources and evaluate them for accuracy and suitability.
- plan for the management of technology resources within the context of learning activities.
- plan strategies to manage student learning in a technology-enhanced environment.

3 TEACHING, LEARNING, AND THE CURRICULUM.
Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning. Teachers:

- facilitate technology-enhanced experiences that address content standards and student technology standards.
- use technology to support learner-centered strategies that address the diverse needs of students.
- apply technology to develop students' higher order skills and creativity.
- manage student learning activities in a technology-enhanced environment.

4 ASSESSMENT AND EVALUATION.

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

- apply technology in assessing student learning of subject matter using a variety of assessment techniques.
- use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.
- apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.

5 PRODUCTIVITY AND PROFESSIONAL PRACTICE.

Teachers use technology to enhance their productivity and professional practice. Teachers:

- use technology resources to engage in ongoing professional development and lifelong learning.
- continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.
- apply technology to increase productivity.
- use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

6 SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES.

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

- model and teach legal and ethical practice related to technology use.
- apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
- identify and use technology resources that affirm diversity
- promote safe and healthy use of technology resources.
- facilitate equitable access to technology resources for all students.

Profiles for Technology-Literate Teachers

Teaching Performance Profile

Teachers who effectively integrate technologies into their curriculum typically perform the following tasks. Effective teachers:

1. assess the availability of technology resources at the school site, plan activities that integrate available resources, and develop a method for obtaining the additional necessary software and hardware to support the specific learning needs of students in the classroom. (1, 2, 4)

2. make appropriate choices about technology systems, resources, and services that are aligned with diocesan and state standards. (1, 2)

3. arrange equitable access to appropriate technology resources that enable students to engage successfully in learning activities across subject/content areas and grade levels. (2, 3, 6)

4. 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 (as defined in the ISTE National Educational Technology Standards for Students). (2, 3)

5. plan and implement technology-based learning activities that promote student engagement in analysis, synthesis, interpretation, and creation of original products. (2, 3)

6. plan for, implement, and evaluate the management of student use of technology resources as part of classroom operations and in specialized instructional situations. (1, 2, 3, 4)

7. implement a variety of instructional technology strategies and grouping strategies (e.g., whole group, collaborative, individualized, and learner centered) that include appropriate embedded assessment for meeting the diverse needs of learners. (3, 4)

8. facilitate student access to school and community resources that provide technological and discipline-specific expertise. (3)

9. teach students methods and strategies to assess the validity and reliability of information gathered through technological means. (2, 4)

10. recognize students' talents in the use of technology and provide them with opportunities to share their expertise with their teachers, peers, and others. (2, 3, 5)

11. guide students in applying self — and peer-assessment tools to critique student-created technology products and the process used to create those products. (4)

12. facilitate students' use of technology that addresses their social needs and cultural identity and promotes their interaction with the global community. (3, 6l)

13. use results from assessment measures (e.g., learner profiles, computer-based testing, electronic portfolios) to improve instructional planning, management, and implementation of learning strategies. (2, 4)

14. use technology tools to collect, analyze, interpret, represent, and communicate data (student performance and other information) for the purposes of instructional planning and school improvement. (4)

15. use technology resources to facilitate communications with parents or guardians of students. (5)

16. identify capabilities and limitations of current and emerging technology resources and assess the potential of these systems and services to address personal, lifelong learning, and workplace needs. (1, 4, 5)

17. participate in technology-based collaboration as part of continual and comprehensive professional growth to stay abreast of new and emerging technology resources that support enhanced learning for PK-12 students. (5)

18. demonstrate and advocate for legal and ethical behaviors among students, colleagues, and community members regarding the use of technology and information. (5, 6)

19. enforce classroom procedures that guide students' safe and healthy use of technology and that comply with legal and professional responsibilities for students needing assistive technologies. (6)

20. advocate for equal access to technology for all students in their schools, communities, and homes. (6)

21. implement procedures consistent with diocesan and school policies that protect the privacy and security of student data and information. (6)

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

1. Technology operations and concepts
2. Planning and Designing Learning Environments and Experiences
3. Teaching, Learning, and the Curriculum
4. Assessment and Evaluation
5. Productivity and Professional Practice
6. Social, Ethical, Legal, and Human Issues

NETS for Administrators

Educational Technology Standards and Performance Indicators for Administrators

1. 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:
   - facilitate the shared development by all stakeholders of a vision for technology use and widely communicate that vision.
   - maintain an inclusive and cohesive process to develop, implement, and monitor a dynamic, long-range, and systemic technology plan to achieve the vision.
   - foster and nurture a culture of responsible risk-taking and advocate policies promoting continuous innovation with technology.
   - use data in making leadership decisions.
   - advocate for research-based effective practices in use of technology.
   - advocate on the state and national levels for policies, programs, and funding opportunities that support implementation of the diocesan technology plan.

2. LEARNING AND TEACHING.
   Educational leaders ensure that curricular design, instructional strategies, and learning environments integrate appropriate technologies to maximize learning and teaching. Educational leaders:
   - identify, use, evaluate, and promote appropriate technologies to enhance and support instruction and standards-based curriculum leading to high levels of student achievement.
   - facilitate and support collaborative technology-enriched learning environments conducive to innovation for improved learning.
   - provide for learner-centered environments that use technology to meet the individual and diverse needs of learners.
   - facilitate the use of technologies to support and enhance instructional methods that develop higher-level thinking, decision-making, and problem-solving skills.
   - provide for and ensure that faculty and staff take advantage of quality professional learning opportunities for improved learning and teaching with technology.

3. PRODUCTIVITY AND PROFESSIONAL PRACTICE.
   Educational leaders apply technology to enhance their professional practice and to increase their own productivity and that of others. Educational leaders
   - model the routine, intentional, and effective use of technology.
   - employ technology for communication and collaboration among colleagues, staff, parents, students, and the larger community.
   - create and participate in learning communities that stimulate, nurture, and support faculty and staff in using technology for improved productivity.
   - engage in sustained, job-related professional learning using technology resources.
   - maintain awareness of emerging technologies and their potential uses in education.
   - use technology to advance organizational improvement.

4. SUPPORT, MANAGEMENT, AND OPERATIONS.
   Educational leaders ensure the integration of technology to support productive systems for learning and administration. Educational leaders:
   - develop, implement, and monitor policies and guidelines to ensure compatibility of technologies.
   - implement and use integrated technology-based management and operations systems.
   - allocate financial and human resources to ensure complete and sustained implementation of the technology plan.
   - integrate strategic plans, technology plans, and other improvement plans and policies to align efforts and leverage resources.
   - implement procedures to drive continuous improvement of technology systems and to support technology replacement cycles.

5. ASSESSMENT AND EVALUATION.
   Educational leaders use technology to plan and implement comprehensive systems of effective assessment and evaluation. Educational leaders:
   - Use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.
   - use technology to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.
   - assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.
   - use technology to assess, evaluate, and manage administrative and operational systems.

6. 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:
   - ensure equity of access to technology resources that enable and empower all learners and educators.
   - identify, communicate, model, and enforce social, legal, and ethical practices to promote responsible use of technology.
   - promote and enforce privacy, security, and online safety related to the use of technology.
   - promote and enforce environmentally safe and healthy practices in the use of technology.
   - participate in the development of policies that clearly enforce copyright law and assign ownership of intellectual property developed with diocesan resources.

NETS for Administrators

Profiles for Technology-Literate Administrators

Principal Profile

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

1. Leadership and Vision
   - participate in an inclusive diocesan process through which stakeholders formulate a shared vision that clearly defines expectations for technology use.
   - develop a collaborative, technology-rich school improvement plan, grounded in research and aligned with the diocesan strategic plan.
   - promote highly effective practices in technology integration among faculty and other staff.

2. Learning and Teaching
   - 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.
   - collaboratively design, implement, support, and participate in professional development for all instructional staff that institutionalizes effective integration of technology for improved student learning.

3. Productivity and Professional Practice
   - use current technology-based management systems to access and maintain personnel and student records.
   - 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.

4. Support, Management, and Operations
   - provide staff development for sharing work and resources across commonly used formats and platforms.
   - allocate school discretionary funds and other resources to advance implementation of the technology plan.
   - advocate for adequate, timely, and high-quality technology support services.

5. Assessment and Evaluation
   - promote and model the use of technology to access, analyze, and interpret campus data to focus efforts for improving student learning and productivity.
   - implement evaluation procedures for teachers that assess individual growth toward established technology standards and guide professional development planning.
   - include effectiveness of technology use in the learning and teaching process as one criteria in assessing performance of instructional staff.

6. Social, Legal, and Ethical Issues
   - secure and allocate technology resources to enable teachers to better meet the needs of all learners in school.
   - 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.
   - participate in the development of facility plans that support and focus on health and environmentally safe practices related to the use of technology.

Diocesan Technology Program Director Profile

Note: Currently, this position does not exist in the Diocese.

Diocesan program directors who effectively lead integration of technology typically perform the following tasks. Effective program directors:

1. Leadership and Vision
   - assure that program technology initiatives are aligned with the diocesan technology vision.
   - represent program interests in the development and systematic review of a comprehensive diocesan technology plan.
   - advocate for program use of promising practices with technology to achieve program goals.

2. Learning and Teaching
   - participate in developing and providing electronic resources that support improved learning for program participants.
   - provide rich and effective staff development opportunities and ongoing support that promote use of technology to enhance program initiatives and activities.
   - ensure that program curricula and services embrace changes brought about by the proliferation of technology within society.

3. Productivity and Professional Practice
   - use technology and connectivity to share promising strategies, interesting case studies, and student and faculty learning opportunities that support program improvement.
   - model, for program staff, effective uses of technology for professional productivity such as in presentations, record keeping, data analysis, research, and communications.
   - use online collaboration to build and participate in collaborative learning communities with directors of similar programs in other dioceses.

4. Support, Management, and Operations
   - implement technology initiatives that provide instructional and technical support as defined in the diocesan technology plan.
   - determine financial needs of the program, develop budgets, and set timelines to realize program technology targets.

5. Assessment and Evaluation
   - continuously monitor and analyze performance data to guide the design and improvement of program initiatives and activities.
   - employ multiple measures and flexible assessment strategies to determine staff technology proficiency within the program and to guide staff development efforts.

6. Social, Legal, and Ethical Issues
   - involve program participants, clients, and staff in dealing with issues related to equity of access and equity of technology-rich opportunities.
   - educate program personnel about technology-related health, safety, legal, and ethical issues, and hold them accountable for decisions and behaviors related to those.
   - inform diocesan and campus leadership of program-specific issues related to privacy, confidentiality, and reporting of information that might impact technology system and policy requirements.

Catholic Schools Office Directors' Profile

Directors who effectively lead the integration of technology typically perform the following tasks. Effective directors:

1. Leadership and Vision
   - assure that the vision for use of technology is congruent with the overall diocesan vision.
   - engage representatives from all stakeholder groups in the development, implementation, and ongoing assessment of a diocesan technology plan consistent with the diocesan improvement plan.
   - 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.

2. Learning and Teaching
   - provide equitable access for students and staff to technologies that facilitate productivity and enhance learning.
   - communicate expectations consistently for the use of technology to increase student achievement.
   - ensure that budget priorities reflect a focus on technology and its relationships to enhanced learning and teaching.

3. Productivity and Professional Practice
   - establish a culture that encourages responsible risk-taking with technology while requiring accountability for results.
   - maintain an emphasis on technology fluency among staff across the diocese and provide staff development opportunities to support high expectations.
   - use current information tools and systems for communication, management of schedules and resources, performance assessment, and professional learning.

4. Support, Management, and Operations
   - provide adequate staffing and other resources to support technology infrastructure and integration across the diocese.
   - ensure, through collaboration with diocesan and campus leadership, alignment of technology efforts with the overall diocesan improvement efforts in instructional management and diocese operations.

5. Assessment and Evaluation
   - engage administrators in using diocesan-wide and disaggregated data to identify improvement targets at the campus and program levels.
   - establish evaluation procedures for administrators that assess demonstrated growth toward achieving technology standards for school administrators.

6. Social, Legal, and Ethical Issues
   - ensure that every student in the diocese engages in technology-rich learning experiences.
   - recommend policies and procedures that protect the security and integrity of the diocesan infrastructure and the data resident on it.
   - develop policies and procedures that protect the rights and confidentiality of students and staff.