

Curriculum Guide
For
Technology

(Revised June 2016)



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The Purpose of Technology in St. John's Lutheran School Curriculum

At St. John's Lutheran School we value the study of technology as an important tool in implementing our vision and philosophy statements. Technology can be defined as the application of tools to solve problems that extend human potential for the benefit of society. Technology today is evolving at an amazing rate, with both frequent advancements of existing technology and the creation of new technologies. All students must understand and be comfortable with the concepts and application of technology, not only in order to function in today's complex society, but also to become informed and productive adults of tomorrow.

At St. John's we emphasize computer and information literacy, which supports skills in information-gathering, information-organizing, and problem solving, all of which have become critical for every student whether college- or workplace-bound. Colleges and employers are now demanding that students and employees possess a broad range of computer and information literacy proficiencies.

We also work hard to incorporate technology and its many uses into all other areas of the curriculum. Using technology to support other curriculum areas is important because it provides highly motivational opportunities for our students to learn, and demonstrate what it is that they are learning.

In their use of technology, we at St. John's want to teach students to demonstrate their Christian role and responsibilities by applying ethical and God-pleasing practices and standards. This is increasingly important with the many pitfalls and dangers that are often found in the use of technology in today's society.

St. Johns Technology Curriculum **Standards & Performance Indicators** **For Students***

STANDARD 1: 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.

STANDARD 2: 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, responsible, and God pleasing use of information and technology.
- b) exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- c) demonstrate personal responsibility for lifelong learning.
- d) exhibit leadership for digital citizenship.
- e) demonstrate understanding of digital citizenship in relation to Christian citizenship traits.

STANDARD 3: 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.

STANDARD 4: Communication and Collaboration

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

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

STANDARD 5: 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.

STANDARD 6: 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.

* (Based on the National Educational Technology Standards (NETS) and Performance Indicators for Students. ©International Society for Technology in Education. ISTE 2007)

St. Johns Technology Curriculum **Standards & Performance Indicators** **For Teachers***

- St. John's teachers model and apply St. John's Technology Standards as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students, colleagues, and the community. All teachers should meet the following standards and performance indicators.

STANDARD 1: Facilitate and Inspire Student Learning and Creativity

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

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

STANDARD 2: Design and Develop Digital-Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in St. John's Technology Standards. Teachers:

- a) design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
- b) develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress
- c) customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources

d) provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

STANDARD 3: Model Digital-Age Work and Learning

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

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

STANDARD 4: Promote and Model Digital Citizenship and Responsibility as well as God-Pleasing Technology Use

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

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

STANDARD 5: Engage in Professional Growth and Leadership

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

- a) participate in local and global learning communities to explore creative applications of technology to improve student learning

- b)** exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others
- c)** evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
- d)** contribute to the effectiveness, vitality, and self-renewal of the teaching profession and and ministry of our school, church and community

(Based on the National Educational Technology Standards (NETS) and Performance Indicators for Teachers. ©International Society for Technology in Education. ISTE 2008)

St. Johns Technology Curriculum **Standards & Performance Indicators** **For Administrators***

- St. John's Administration models and applies St. John's Technology Standards as they design, implement, and assess learning experiences at St. John's relating to technology instruction and use. Administrators seek to provide opportunities that engage students and improve learning; enrich professional practice; and provide positive models for students and teachers, colleagues, and the community. All administrators should meet the following standards and performance indicators.

STANDARD 1: Visionary Leadership

St. John's Administrators will inspire and lead development and implementation of a shared vision for comprehensive integration of technology to promote excellence and support transformation throughout the organization. Administrators:

- a) inspire and facilitate among all stakeholders a shared vision of purposeful change that maximizes use of digital-age resources to meet and exceed learning goals, support effective instructional practice, and maximize performance of school leadership
- b) engage in an ongoing process to develop, implement, and communicate technology-infused strategic plans aligned with a shared vision
- c) Advocate on a local and state level for policies, programs, and funding to support implementation of a technology-infused vision and strategic plan

STANDARD 2: Digital age learning culture

St. John's Administrators create, promote, and sustain a dynamic, digital-age learning culture that provides a rigorous, relevant, and engaging education for all students. Administrators:

- a) ensure instructional innovation focused on continuous improvement of digital-age learning that also promotes and strives toward integrating the faith in all learning
- b) model and promote the frequent and effective use of technology for learning
- c) provide learner-centered environments equipped with technology and learning resources to meet the individual, diverse needs of all learners
- d) promote and participate in local, state, national, and global learning communities that stimulate innovation, creativity, and digital age collaboration

STANDARD 3: Excellence in professional practice

St. John's administrators promote an environment of professional learning, spiritual growth, and innovation that empowers educators to enhance professional and personal growth as well as student learning through the infusion of contemporary technologies and digital resources. Administrators:

- a) allocate time, resources, and access to ensure ongoing professional growth in technology fluency and integration, as well as personal spiritual growth.
- b) facilitate and participate in learning communities that stimulate, nurture and support administrators, faculty, and staff in the student and use of technology
- c) promote and model effective communication and collaboration among stakeholders using digital age tools
- d) stay abreast of educational research and emerging trends regarding effective use of technology and encourage evaluation of new technologies for their potential to improve student learning

STANDARD 4: Systemic improvement

St. John's Administrators provide digital age leadership and management to continuously improve the organization through the effective use of information and technology resources.

Administrators:

- a) lead purposeful change to maximize the achievement of learning goals through the appropriate use of technology and media-rich resources
- b) collaborate to establish metrics, collect and analyze data, interpret results, and share findings to improve staff performance and student learning
- c) recruit and retain highly competent personnel who use technology creatively and proficiently to advance academic and operational goals
- d) establish and leverage strategic partnerships to support systemic improvement
- e) establish and maintain a robust infrastructure for technology including integrated, interoperable technology systems to support management, operations, teaching, and learning

STANDARD 5: Digital Citizenship

St. John's Administrators model and facilitate understanding of social, ethical, spiritual, and legal issues and responsibilities related to an evolving digital culture. Administrators:

- a) ensure equitable access to appropriate digital tools and resources to meet all the needs of the learners
- b) promote, model and establish policies for safe, legal, and God-pleasing use of digital information and technology

c) promote and model responsible social interactions related to the use of technology and information

d) model and facilitate the development of a shared cultural understanding and involvement in global issues through the use of contemporary communication and collaboration tools

(Based on the National Educational Technology Standards (NETS) and Performance Indicators for Administrators. ©International Society for Technology in Education. ISTE 2009)