

August 2018

Dear Catholic school families, educators, leaders and supporters,

The Office of Catholic Schools in the Diocese of Grand Rapids is pleased to present new curriculum standards outlining the academic expectations throughout our alliance of Catholic schools. By our definition, curriculum standards express the skills and content students are expected to demonstrate within courses and across grade levels. These standards provide normative targets for student performance. When a student has successfully completed a course or grade level, he or she will have demonstrated competence in the knowledge, skills, or attitudes required of that course or grade level. We have created these new curriculum standards in order to express the Catholic identity within our curriculum and to articulate the profile of a graduate of our diocesan schools. Developing these curriculum standards has been a two-year process involving educators, administrators and clergy. Like all curriculum revisions, this process is never entirely finished, and an annual review will allow us to update these documents to reflect what is best for our schools.

The sources used to create our diocesan curriculum standards vary by content area, but each is rooted in the Catechism of the Catholic Church and the Cardinal Newman Society's <u>Catholic Curriculum Standards</u>. Additionally, the curriculum standards from various dioceses and national organizations of educators; curriculum guidelines from Michigan and other states; material from professional organizations, such as College Board, which produces the Scholastic Assessment Test (SAT) suite and the Advanced Placement (AP) assessments; and Northwest Evaluation Association (NWEA), which produces the Measure of Academic Progress (MAP) assessments, were used as references. Each of these sources is referenced in the acknowledgements following each content area document. Importantly, we also accounted for the cultures and communities of our local schools, as no standards should be adopted without consideration of the unique and specific desires of the Catholic families in the diocese.

Hundreds of diocesan teachers and administrators worked tirelessly to produce the content and wording of these curriculum standards over eighteen months, from summer 2016 through winter 2017. The curriculum standards were then reviewed by local experts in theology, including diocesan priests and Aquinas College professors. This combination of experts ensures that the curriculum is rooted in our Catholic faith, is interculturally appropriate for our diocese, and provides educational best practices to inspire excellence in Catholic education. The final review was completed by Most Reverend David J. Walkowiak, bishop of Grand Rapids and Mr. David Faber, superintendent of Catholic schools in the Diocese of Grand Rapids.

In sharing these documents with you, we invite you to explore how our alliance of Catholic schools strives to provide our students with an outstanding education that allows them to grow in faith and grace, achieve more in school and life, develop creativity and character, and feel welcome and cherished.

In Christ,

Jill Annable

rlldM

Assistant Superintendent for Curriculum, Instruction, and Technology Integration Office of Catholic Schools, Diocese of Grand Rapids

Diocese of Grand Rapids Office of Catholic Schools Curriculum Standards for Technology in grades K-8

Table of Contents

Program Goal	2
Catholic Church Teachings	2
Kindergarten through Second Grade Technology Curriculum Standards	7
Third through Fifth Grade Technology Curriculum Standards	9
Sixth through Eighth Grade Technology Curriculum Standards	12
Articulation of All Standards by Grade Band	15
<u>Acknowledgments</u>	19
Note on Shared Time Teachers	19

Office of Catholic Schools
Curriculum Standards
for Technology
in grades K-8

Program Goal

Students attending Catholic schools in the Diocese of Grand Rapids are taught to utilize available and emerging technologies for education, communication, problem solving, analysis, and research in accordance with Catholic values, ethical principles, and moral decision making. In our technology courses, students develop life skills necessary to meet the technological and ethical challenging of living and working with technology, and we are called by the Catholic Church to embrace technologies for the New Evangelization.

Catholic Church Teachings

From the Catechism of the Catholic Church

Basic scientific research, as well as applied research, is a significant expression of man's dominion over creation. Science and technology are precious resources when placed at the service of man and promote his integral development for the benefit of all. By themselves however they cannot disclose the meaning of existence and of human progress. Science and technology are ordered to man, from whom they take their origin and development; hence they find in the person and in his moral values both evidence of their purpose and awareness of their limits. (159, 1703)

It is an illusion to claim moral neutrality in scientific research and its applications. On the other hand, guiding principles cannot be inferred from simple technical efficiency, or from the usefulness accruing to some at the expense of others or, even worse, from prevailing ideologies. Science and technology by their very nature require unconditional respect for fundamental moral criteria. They must be at the service of the human person, of his inalienable rights, of his true and integral good, in conformity with the plan and the will of God. (2375)

1723 The beatitude we are promised confronts us with decisive moral choices. It invites us to purify our hearts of bad instincts and to seek the love of God above all else. It teaches us that true happiness is not found in riches or well-being, in human fame or power,

or in any human achievement— however beneficial it may be—such as science, technology, and art, or indeed in any creature, but in God alone, the source of every good and of all love: (2519, 227)

From the Pontifical Council for Social Communications – "The Church and the Internet"

- The Pastoral Instruction on the Means of Social Communication *Communio et Progressio* published in 1971, underlined the point: "The Church sees these media as 'gifts from God' which, in accordance with his providential design, unite men in brotherhood and so help them to cooperate with his plan for their salvation."
- 2 Considering the media of social communication, we see they "contribute greatly to the enlargement and enrichment of men's minds and to the propagation and consolidation of the kingdom of God."
- The Church has a two-fold aim in regard to the media. One aspect is to encourage their right development and right use for the sake of human development, justice, and peace—for the upbuilding of society at the local, national, and community levels in light of the common good and in a spirit of solidarity.
- Internet is relevant to many activities and programs of the Church— evangelization, including both re-evangelization and new evangelization and the traditional missionary work ad gentes, catechesis and other kinds of education, news and information, apologetics, governance and administration, and some forms of pastoral counseling and spiritual direction. Although the virtual reality of cyberspace cannot substitute for real interpersonal community, the incarnational reality of the sacraments and the liturgy, or the immediate and direct proclamation of the gospel, it can complement them, attract people to a fuller experience of the life of faith, and enrich the religious lives of users. It also provides the Church with a means for communicating with particular groups—young people and young adults, the elderly and home-bound, persons living in remote areas, the members of other religious bodies—who otherwise may be difficult to reach.
- Education and training are another area of opportunity and need. "Today everybody needs some form of continuing media education, whether by personal study or participation in an organized program or both. More than just teaching about techniques, media education helps people form standards of good taste and truthful moral judgment, an aspect of conscience formation. Through her schools and formation programs the Church should provide media education of this kind".

Education and training regarding the Internet ought to be part of comprehensive programs of media education available to members of the Church. As much as possible, pastoral planning for social communications should make provision for this training in the formation of seminarians, priests, religious, and lay pastoral personnel as well as teachers, parents, and students.

Young people in particular need to be taught "not only to be good Christians when they are recipients but also to be active in using all the aids to communication that lie within the media...So, young people will be true citizens of that age of social communications which has already begun"—an age in which media are seen to be "part of a still unfolding culture whose full implications are as yet imperfectly understood". Teaching about the Internet and the new technology thus involves much more than teaching techniques; young people need to learn how to function well in the world of cyberspace, make discerning judgments according to sound moral criteria about what they find there, and use the new technology for their integral development and the benefit of others.

- At a very deep level, "the world of the media can sometimes seem indifferent and even hostile to Christian faith and morality. This is partly because media culture is so deeply imbued with a typically postmodern sense that the only absolute truth is that there are no absolute truths or that, if there were, they would be inaccessible to human reason and therefore irrelevant".
- The virtual reality of cyberspace has some worrisome implications for religion as well as for other areas of life. Virtual reality is no substitute for the Real Presence of Christ in the Eucharist, the sacramental reality of the other sacraments, and shared worship in a flesh-and-blood human community. There are no sacraments on the Internet; and even the religious experiences possible there by the grace of God are insufficient apart from real-world interaction with other persons of faith. Here is another aspect of the Internet that calls for study and reflection. At the same time, pastoral planning should consider how to lead people from cyberspace to true community and how, through teaching and catechesis, the Internet might subsequently be used to sustain and enrich them in their Christian commitment.
- It is important, too, that people at all levels of the Church use the Internet creatively to meet their responsibilities and help fulfill the Church's mission.
- To educators and catechists. The Pastoral Instruction *Communio et Progressio* spoke of the "urgent duty" of Catholic schools to train communicators and recipients of social communications in relevant Christian principles. The same message has been repeated many times. In the age of the Internet, with its enormous outreach and impact, the need is more urgent than ever.

Catholic universities, colleges, schools, and educational programs at all levels should provide courses for various groups—"seminarians, priests, religious brothers and sisters, and lay leaders…teachers, parents, and students"—as well as more advanced training in communications technology, management, ethics, and policy issues for individuals preparing for professional media work or decision-making roles, including those who work in social communications for the Church.

To parents. For the sake of their children, as well as for their own sakes, parents must "learn and practice the skills of discerning viewers and listeners and readers, acting as models of prudent use of media in the home". As far as the Internet is concerned, children and young people often are more familiar with it than their parents are, but parents still are seriously obliged to guide and supervise their children in its use. If this means learning more about the Internet than they have up to now, that will be all to good.

Parental supervision should include making sure that filtering technology is used in computers available to children when that is financially and technically feasible, in order to protect them as much as possible from pornography, sexual predators, and other threats. Unsupervised exposure to the Internet should not be allowed. Parents and children should dialogue together about what is seen and experienced in cyberspace; sharing with other families who have the same values and concerns will also be helpful. The fundamental parental duty here is to help children become discriminating, responsible Internet users and not addicts of the Internet, neglecting contact with their peers and with nature itself.

To children and young people. The Internet is a door opening on a glamorous and exciting world with a powerful formative influence; but not everything on the other side of the door is safe and wholesome and true. "Children and young people should be open to formation regarding media, resisting the easy path of uncritical passivity, peer pressure, and commercial exploitation". The young owe it to themselves—and to their parents and families and friends, their pastors and teachers, and ultimately to God—to use the Internet well.

The Internet places in the grasp of young people at an unusually early age an immense capacity for doing good and doing harm, to themselves and others. It can enrich their lives beyond the dreams of earlier generations and empower them to enrich others' lives in turn. It also can plunge them into consumerism, pornographic and violent fantasy, and pathological isolation.

Young people, as has often been said, are the future of society and the Church. Good use of the Internet can help prepare them for their responsibilities in both. But this will not happen automatically. The Internet is not merely a medium of entertainment and consumer gratification. It is a tool for accomplishing useful work, and the young must learn to see it and use it as such. In

cyberspace, at least as much as anywhere else, they may be called on to go against the tide, practice counter-culturalism, even suffer persecution for the sake of what is true and good.

12 *To all persons of good will.* Finally, then, we would suggest some virtues that need to be cultivated by everyone who wants to make good use of the Internet; their exercise should be based upon and guided by a realistic appraisal of its contents.

Prudence is necessary in order clearly to see the implications—the potential for good and evil—in this new medium and to respond creatively to its challenges and opportunities.

Justice is needed, especially justice in working to close the digital divide—the gap between the information-rich and the information-poor in today's world. This requires a commitment to the international common good, no less than the "globalization of solidarity".

Fortitude, courage, is necessary. This means standing up for truth in the face of religious and moral relativism, for altruism and generosity in the face of individualistic consumerism, for decency in the face of sensuality and sin.

And temperance is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to use it wisely and only for good.

Diocese of Grand Rapids
Office of Catholic Schools
Curriculum Standards
for Technology
in grades K-8

Kindergarten through Second Grade Technology Curriculum Standards

Students who demonstrate understanding of second grade Technology are able to --

Operations and Concepts "Prudence is necessary in order clearly to see the implications—the potential for good and evil—in this new medium and to respond creatively to its challenges and opportunities" (The Church and Internet, 12).				
K-2.Tech.O.1	K-2.Tech.O.1 Use a variety of media and technology resources for directed/independent learning activities.			
K-2.Tech.O.2	K-2.Tech.O.2 Communicate about technology using developmentally appropriate and accurate terminology.			
Social, Ethical and Human Issues "Justice is needed, especially justice in working to close the digital divide—the gap between the information-rich and the information-poor in today's world. This requires a commitment to the international common good, no less than the 'globalization of solidarity.' Fortitude, courage, is necessary. This means standing up for truth in the face of religious and moral relativism, for altruism and generosity in the face of individualistic consumerism, for decency in the face of sensuality and sin" (The Church and Internet, 12).				
K-2.Tech.S.1 Use technology for the benefit of others and society, for the sake of human development, justice and peace, for the upbuilding of society at all levels, in light of the common good and in the spirit of solidarity.				
K-2.Tech.S.2 Build cooperative and collaborative networks of peers and experts to customize and support the learning process.				

K-2.Tech.S.4 Demonstrate awareness of the permanence of actions in the digital world. K-2.Tech.S.5 Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. Technology Tools "And temperance is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to usit wisely and only for good" (The Church and Internet, 12). K-2.Tech.T.1 Identity and create patterns, identify and correct errors in a sequence, and solve problems, as a means to introduce basic coding skills, using developmentally-appropriate terminology. K-2.Tech.T.2 Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes improve goal outcomes. K-2.Tech.T.3 Use a variety of technologies within a design process to identify and solve problems. K-2.Tech.T.4 Create developmentally-appropriate, original multimedia products with support from teachers, family members or peers. K-2.Tech.T.5 Publish, present, or share original products for authentic audiences. K-2.Tech.T.6 Use productivity tools and peripherals to facilitate learning.				
K-2.Tech.S.5 Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. Technology Tools "And temperance is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to use it wisely and only for good" (The Church and Internet, 12). K-2.Tech.T.1 Identity and create patterns, identify and correct errors in a sequence, and solve problems, as a means to introduce basic coding skills, using developmentally-appropriate terminology. K-2.Tech.T.2 Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes improve goal outcomes. K-2.Tech.T.3 Use a variety of technologies within a design process to identify and solve problems. K-2.Tech.T.4 Create developmentally-appropriate, original multimedia products with support from teachers, family members or peers. K-2.Tech.T.5 Publish, present, or share original products for authentic audiences. K-2.Tech.T.6 Use productivity tools and peripherals to facilitate learning. Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test	K-2.Tech.S.3	Use digital tools to engage with others from a variety of backgrounds and cultures, to broaden understanding of global issues and investigate solutions.		
Technology Tools "And temperance is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to use it wisely and only for good" (The Church and Internet, 12). K-2.Tech.T.1 Identity and create patterns, identify and correct errors in a sequence, and solve problems, as a means to introduce basic coding skills, using developmentally-appropriate terminology. K-2.Tech.T.2 Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes improve goal outcomes. K-2.Tech.T.3 Use a variety of technologies within a design process to identify and solve problems. K-2.Tech.T.4 Create developmentally-appropriate, original multimedia products with support from teachers, family members or peers. K-2.Tech.T.5 Publish, present, or share original products for authentic audiences. K-2.Tech.T.6 Use productivity tools and peripherals to facilitate learning. Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test	K-2.Tech.S.4	Demonstrate awareness of the permanence of actions in the digital world.		
"And temperance is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to use it wisely and only for good" (The Church and Internet, 12). K-2.Tech.T.1 Identity and create patterns, identify and correct errors in a sequence, and solve problems, as a means to introduce basic coding skills, using developmentally-appropriate terminology. K-2.Tech.T.2 Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes improve goal outcomes. K-2.Tech.T.3 Use a variety of technologies within a design process to identify and solve problems. K-2.Tech.T.4 Create developmentally-appropriate, original multimedia products with support from teachers, family members or peers. K-2.Tech.T.5 Publish, present, or share original products for authentic audiences. K-2.Tech.T.6 Use productivity tools and peripherals to facilitate learning. Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test	K-2.Tech.S.5			
introduce basic coding skills, using developmentally-appropriate terminology. K-2.Tech.T.2 Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes improve goal outcomes. K-2.Tech.T.3 Use a variety of technologies within a design process to identify and solve problems. Create developmentally-appropriate, original multimedia products with support from teachers, family members or peers. K-2.Tech.T.5 Publish, present, or share original products for authentic audiences. K-2.Tech.T.6 Use productivity tools and peripherals to facilitate learning. Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test	•	"And temperance is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to use		
 K-2.Tech.T.3	K-2.Tech.T.1			
 K-2.Tech.T.4 Create developmentally-appropriate, original multimedia products with support from teachers, family members or peers. K-2.Tech.T.5 Publish, present, or share original products for authentic audiences. K-2.Tech.T.6 Use productivity tools and peripherals to facilitate learning. K-2.Tech.T.7 Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test 	K-2.Tech.T.2	Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes to improve goal outcomes.		
 K-2.Tech.T.5 or peers. K-2.Tech.T.5 Publish, present, or share original products for authentic audiences. K-2.Tech.T.6 Use productivity tools and peripherals to facilitate learning. K-2.Tech.T.7 Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test 	K-2.Tech.T.3	Use a variety of technologies within a design process to identify and solve problems.		
K-2.Tech.T.6 Use productivity tools and peripherals to facilitate learning. Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test	K-2.Tech.T.4	Create developmentally-appropriate, original multimedia products with support from teachers, family members, or peers.		
Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test	K-2.Tech.T.5	Publish, present, or share original products for authentic audiences.		
I K-2 I ACN I / I ·	K-2.Tech.T.6	Use productivity tools and peripherals to facilitate learning.		
	K-2.Tech.T.7	Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.		

Third through Fifth Grade Technology Curriculum Standards

Students who demonstrate understanding of fifth grade technology are able to --

Operations and Concepts

"Prudence is necessary in order clearly to see the implications—the potential for good and evil—in this new medium and to respond creatively to its challenges and opportunities" (The Church and Internet, 12).

	respond Greatively to its chancinges and opportunities (The Original and Internet, 12).			
3-5.Tech.O.1 Use a variety of media and technology resources for directed/independent learning activities.				
	3-5.Tech.O.2 Communicate about technology using developmentally appropriate and accurate terminology.			
	3-5.Tech.O.3	Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.		

Social, Ethical and Human Issues

"Justice is needed, especially justice in working to close the digital divide—the gap between the information-rich and the information-poor in today's world. This requires a commitment to the international common good, no less than the 'globalization of solidarity.'

Fortitude, courage, is necessary. This means standing up for truth in the face of religious and moral relativism, for altruism and generosity in the face of individualistic consumerism, for decency in the face of sensuality and sin" (The Church and Internet, 12).

3-5.Tech.S.1	Use technology for the benefit of others and society, for the sake of human development, justice and peace, for the upbuilding of society at all levels, in light of the common good and in the spirit of solidarity.	
3-5.Tech.S.2	Build cooperative and collaborative networks of peers and experts to customize and support the learning process.	
3-5.Tech.S.3	Use digital tools to engage with others from a variety of backgrounds and cultures, to broaden understanding of global issues and investigate solutions.	
3-5.Tech.S.4 Demonstrate awareness of the permanence of actions in the digital world.		

3-5.Tech.S.5	Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.			
3-5.Tech.S.6	Tech.S.6 Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness and reliability of electronic information sources.			
3-5.Tech.S.7	Establish and maintain a positive digital identity and reputation.			
3-5.Tech.S.8	Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.			
3-5.Tech.S.9	Manage personal data to maintain digital privacy and security and build awareness of data-collection technology used to track people's navigation online.			
•	Technology Tools ce is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to use ally for good" (The Church and Internet, 12).			
3-5.Tech.T.1	3-5.Tech.T.1 Identity and create patterns, identify and correct errors in a sequence, and solve problems, as a means to introduce basic coding skills, using developmentally-appropriate terminology.			
3-5.Tech.T.2	Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes to improve goal outcomes.			
3-5.Tech.T.3	Use a variety of technologies within a design process to identify and solve problems.			
3-5.Tech.T.4	Create developmentally-appropriate, original multimedia products with support from teachers, family members, or peers.			
3-5.Tech.T.5	Publish, present, or share original products for authentic audiences.			
3-5.Tech.T.6	Use productivity tools and peripherals to facilitate learning.			
3-5.Tech.T.7	Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.			

3-5.Tech.T.8	Use digital tools to collect, analyze, and represent information in various ways to facilitate problem-solving and decision-making.	
3-5.Tech.T.9	Select and use digital tools effectively and productively.	
3-5.Tech.T.10	Plan and employ effective research strategies to locate information and other resources.	
3-5.Tech.T.11	Curate and organize information from digital resources using a variety of tools and methods.	
3-5.Tech.T.12	Model processes and systems that satisfy if-then statement with increased complexity.	
3-5.Tech.T.13	Use the concepts of <i>compose</i> and <i>decompose</i> to demonstrate understanding of specific organizational patterns.	
3-5.Tech.T.14	Explore using various coding languages as a way to create, control, and interact with digital spaces.	

Sixth through Eighth Grade Technology Curriculum Standards

Students who demonstrate understanding of eighth grade technology are able to --

Operations and Concepts

"Prudence is necessary in order clearly to see the implications—the potential for good and evil—in this new medium and to respond creatively to its challenges and opportunities" (The Church and Internet, 12).

,		
6-8.Tech.O.1	Use a variety of media and technology resources for directed/independent learning activities.	
6-8.Tech.O.2	ommunicate about technology using developmentally appropriate and accurate terminology.	
6-8.Tech.O.3 Apply strategies for identifying and solving routine hardware and software problems that occur during everyd use.		
6-8.Tech.O.4	Understand and use technology systems.	
6-8.Tech.O.5	Transfer current knowledge to learning of new technologies.	

Social, Ethical and Human Issues

"Justice is needed, especially justice in working to close the digital divide—the gap between the information-rich and the information-poor in today's world. This requires a commitment to the international common good, no less than the 'globalization of solidarity.'

Fortitude, courage, is necessary. This means standing up for truth in the face of religious and moral relativism, for altruism and generosity in the face of individualistic consumerism, for decency in the face of sensuality and sin" (The Church and Internet, 12).

6-8.Tech.S.1	Use technology for the benefit of others and society, for the sake of human development, justice and peace, for the upbuilding of society at all levels, in light of the common good and in the spirit of solidarity.*
6-8.Tech.S.2	Build cooperative and collaborative networks of peers and experts to customize and support the learning process.

·					
6-8.Tech.S.3	Use digital tools to engage with others from a variety of backgrounds and cultures, to broaden understanding of global issues and investigate solutions.				
6-8.Tech.S.4	Demonstrate awareness of the permanence of actions in the digital world.				
6-8.Tech.S.5	6-8.Tech.S.5 Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.				
6-8.Tech.S.6	Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness and reliability of electronic information sources.				
6-8.Tech.S.7	Establish and maintain a positive digital identity and reputation.				
6-8.Tech.S.8	Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.				
6-8.Tech.S.9	Manage personal data to maintain digital privacy and security and build awareness of data-collection technology used to track people's navigation online.				
	Technology Tools ace is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to use any for good" (The Church and Internet, 12).				
6-8.Tech.T.1					
1	Identity and create patterns, identify and correct errors in a sequence, and solve problems, as a means to introduce basic coding skills, using developmentally-appropriate terminology.				
6-8.Tech.T.2					
	introduce basic coding skills, using developmentally-appropriate terminology. Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes to				
6-8.Tech.T.2	introduce basic coding skills, using developmentally-appropriate terminology. Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes to improve goal outcomes.				

6-8.Tech.T.6	Use productivity tools and peripherals to facilitate learning.	
6-8.Tech.T.7	Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.	
6-8.Tech.T.8	Use digital tools to collect, analyze, and represent information in various ways to facilitate problem-solving and decision-making.	
6-8.Tech.T.9	Select and use digital tools effectively and productively.	
6-8.Tech.T.10	Plan and employ effective research strategies to locate information and other resources.	
6-8.Tech.T.11	Curate and organize information from digital resources using a variety of tools and methods.	
6-8.Tech.T.12	Model processes and systems that satisfy if-then statement with increased complexity.	
6-8.Tech.T.13	Use the concepts of <i>compose</i> and <i>decompose</i> to demonstrate understanding of specific organizational patterns.	
6-8.Tech.T.14	Explore using various coding languages as a way to create, control, and interact with digital spaces.	
6-8.Tech.T.15	Use variables to demonstrate if-then relationships.	
6-8.Tech.T.16	Explain the connection between variables and outputs of a program.	
6-8.Tech.T.17	Expand and build on others' ideas to create more efficient programming commands.	

Articulation of All Standards by Grade Band

Students who demonstrate understanding of technology within each grade band are able to --

Operations and Concepts

"Prudence is necessary in order clearly to see the implications—the potential for good and evil—in this new medium and to respond creatively to its challenges and opportunities" (The Church and Internet, 12).

	Full Standard	Report Card Wording	K-2	3-5	6-8
Tech.O.1	Use a variety of media and technology resources for directed/independent learning activities.	Use variety of media resources for directed/independent learning activities.	Х	Х	Х
Tech.O.2	Communicate about technology using developmentally appropriate and accurate terminology.	Use accurate terminology.	Х	X	Х
Tech.O.3	Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.	Apply strategies for identifying/solving routine problems.		X	Х
Tech.O.4	Understand and use technology systems.	Understand/use technology systems.			Х
Tech.O.5	Transfer current knowledge to learning of new technologies.	Transfer knowledge to learning new technologies.			х

Social, Ethical and Human Issues

"Justice is needed, especially justice in working to close the digital divide—the gap between the information-rich and the information-poor in today's world. This requires a commitment to the international common good, no less than the 'globalization of solidarity.'

Fortitude, courage, is necessary. This means standing up for truth in the face of religious and moral relativism, for altruism and generosity in the face of individualistic consumerism, for decency in the face of sensuality and sin" (The Church and Internet, 12).

	Full Standard	Report Card Wording	K-2	3-5	6-8
Tech.S.1	Use technology for the benefit of others and society, for the sake of human development, justice and peace, for the upbuilding of	Use technology for the common good.	х	х	Х

	society at all levels, in light of the common good and in the spirit of solidarity.				
Tech.S.2	Build cooperative and collaborative networks of peers and experts to customize and support the learning process.	Build collaborative networks of peers/experts.	Х	х	Х
Tech.S.3	Use digital tools to engage with others from a variety of backgrounds and cultures, to broaden understanding of global issues and investigate solutions.	Engage with others to broaden understanding of global issues/investigate solutions.	Х	х	Х
Tech.S.4	Demonstrate awareness of the permanence of actions in the digital world.	Demonstrate awareness of permanence of actions in digital world.	Х	Х	Х
Tech.S.5	Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.	Demonstrate respect for rights/obligations of using/sharing intellectual property.	х	х	Х
Tech.S.6	Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness and reliability of electronic information sources.	Research/evaluate reliability of electronic information sources.		x	Х
Tech.S.7	Establish and maintain a positive digital identity and reputation.	Establish/maintain positive digital identity/reputation.		х	Х
Tech.S.8	Engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.	Engage in positive behavior when using technology.		х	Х
Tech.S.9	Manage personal data to maintain digital privacy and security and build awareness of data-collection technology used to track people's navigation online.	Manage personal data to maintain digital privacy/security.		х	Х

Technology Tools

"And temperance is needed—a self-disciplined approach to this remarkable technological instrument, the Internet, so as to use it wisely and only for good" (The Church and Internet, 12).

	Full Standard	Report Card Wording	K-2	3-5	6-8
Tech.T.1	Identity and create patterns, identify and correct errors in a sequence, and solve problems, as a means to introduce basic coding skills, using developmentally-appropriate terminology.	Identity/create patterns and identify/correct errors in sequence.	X	X	х
Tech.T.2	Articulate and set learning goals, use technology to help achieve them, and reflect on the learning processes to improve goal outcomes.	Articulate/set learning goals and use technology to help achieve them.	X	х	х
Tech.T.3	Use a variety of technologies within a design process to identify and solve problems.	Use variety of technologies within design process to identify/solve problems.	Х	Х	Х
Tech.T.4	Create developmentally-appropriate, original multimedia products with support from teachers, family members, or peers.	Create original multimedia products.	X	Х	Х
Tech.T.5	Publish, present, or share original products for authentic audiences.	Publish/present/share original products for authentic audiences.	Х	Х	Х
Tech.T.6	Use productivity tools and peripherals to facilitate learning.	Use productivity tools/peripherals to facilitate learning.	X	Х	Х
Tech.T.7	Explore the use of automation and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.	Develop sequence of steps to create/test automated solutions.	X	Х	х
Tech.T.8	Use digital tools to collect, analyze, and represent information in various ways to facilitate problem-solving and decision-making.	Collect/analyze/represent information.		х	Х
Tech.T.9	Select and use digital tools effectively and productively.	Select/use digital tools effectively/productively.		Х	Х
Tech.T.10	Plan and employ effective research strategies to locate information and other resources.	Plan/employ effective research strategies.		Х	Х
Tech.T.11	Curate and organize information from digital resources using a	Curate/organize information from digital		Х	Х

	variety of tools and methods.	resources.		
Tech.T.12	Model processes and systems that satisfy <i>if-then</i> statements with increased complexity.	Model processes/systems that satisfy if-then statements.	Х	х
Tech.T.13	Use the concepts of <i>compose</i> and <i>decompose</i> to demonstrate understanding of specific organizational patterns.	Use compose/decompose.	Х	х
Tech.T.14	Explore using various coding languages as a way to create, control, and interact with digital spaces.	Create/control/interact with digital spaces.	Х	х
Tech.T.15	Use variables to demonstrate if-then relationships.	Use variables to demonstrate if-then relationships.		Х
Tech.T.16	Explain the connection between variables and outputs of a program.	Explain connection between variables/outputs.		х
Tech.T.17	Expand and build on others' ideas to create more efficient programming commands.	Expand/build on ideas to create more efficient programming commands.		х

Diocese of Grand Rapids
Office of Catholic Schools
Curriculum Standards
for Technology
in grades K-8

Acknowledgements

The Diocese of Grand Rapids Office of Catholic Schools Curriculum Standards for Technology were drafted in reflection of

Catholic Church. Catechism of the Catholic Church. 1995.

Diocese of Superior. Technology Curriculum Guidelines. 2015.

Dominican Sisters of Mary, Mother of the Eucharist. *Education in Virtue*. 2013.

Foley, John F. "Pontifical Council for Social Communications: The Church and Internet." The Catholic Church, 2002.

Michigan Department of Education. Michigan Integrated Technology Competencies for Students. 2018.

ISTE Standards for Students, International Society for Technology in Education, 2016.

Note on Shared-Time Teachers

Shared-time teachers employed by local public school districts must comply with the curriculum guidelines of the local public school districts. Each is a Michigan public school as those terms are defined within the 1998 Public Act 339. The curriculum provided in those programs shall comply with all regulations required by Public Act 339.