

**Amended Technology Plan
Section 1
Cover Page**

District: Archdiocese of Detroit

School: Christ the King Elementary

Address: 16800 Trinity
Detroit, MI 48219

Contact: Rosanne Jodway, Principal

Phone: 313-532-1213

Fax: 313-532-1050

District/ School code: 82010 00685

Email: rmjodway@sbcglobal.net

Web address: www.christthekingdetroit.org

Years covered by this plan: 2009-2012

Start date of plan: June 30, 2009

End date of plan: June 30, 2012

Intermediate School District: Wayne County RESA

URL for technology plan:
www.christthekingdetroit.org/school.html

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Section 2 - Introductory Materials

Mission Statement We are Christ the King Catholic School in Northwest Detroit serving the educational needs of a multi-cultural parish and community. We instill Christian values from the gospel of Jesus Christ. We are dedicated to educating children to strive for academic excellence.

Description of school

Physical plant: Christ the King Catholic School was built in 1937 to serve the community of northwest Detroit. A wing was added in the 1960s; in the 1990s it was connected to the main building. The grounds and buildings are well-maintained. One small boiler was replaced in 1998. The main boiler was replaced in 2005. The roof is being repaired/replaced systematically. Classrooms have all been recently re-painted. The library and computer lab have been enlarged and renovated, mostly by volunteers. The gym floor was completely refinished in July of 2006.

Students: The current student population of approximately 150 children, preschool - grade 8, comes from all areas of metropolitan Detroit. The majority of the students are African American, non-Catholic and middle to low socioeconomic level (60% of the students qualify for free/reduced lunch). About half of the students attend either morning or afternoon latchkey.

Classrooms: There is one classroom for each grade. Class size varies from 10-20. Special classes include physical education, music, art, (these classes are provided by the shared-time program) computer, library and Italian (provided by the Italian consulate).

The library was renovated in 2002. It occupies the space of two classrooms and houses an extensive collection of books. There are two computers with Internet access, a printer, tables and chairs as well as floor space for story time.

There are two science labs (K-4 and 5-8) with equipment, supplies, and two computers with Internet access, a printer, and tables for group work in each one.

The computer lab was enlarged in 2006. There are 24 workstations with Internet access and printers. All students, K-8, have computer class once a week. The Lab is open from 6:30am to 6pm for student, parent or staff use.

All teachers in grades K-8 are certified; the preschool teachers meet or exceed state qualifications.

Finances: The school operates within a very tight budget. All teachers are paid on the archdiocesan scale (ranging from \$23,000 - \$38,000). Tuition is \$3900 per student, with a substantial discount for siblings. Several organizations provide tuition assistance to needy families. Funding from the archdiocese and financial support from the parish are important sources of revenue. The school has coped with increased expenses (gas, water, insurance, health insurance) and reduced income (caused by parents with financial problems) by hard work and penny pinching. There is no waste; in many cases, unless something is donated, we do without.

Technology Team

Rosanne Jodway	principal
Nancy Soisson	technology chairperson computer lab teacher
Brian Karapuz	teacher
Vertna Peterson	teacher
Nicole Evans	preschool aide
Christine Webb	parent
Prentis Parker	school secretary
Carl Davis	parent

Technology Plan C Process for Approval

- \$ acceptance in final form by the technology committee
- \$ approval by the School Committee
- \$ approval by Wayne County RESA
- \$ approval by the state of Michigan

Section 3 - Vision & Goals

Vision

The students at Christ the King school will have access to the tools of technology needed to improve academic achievement.

Goals

Our goal is to prepare students to become productive citizens in a global society. This will require a level of expertise in the use of electronic devices that we can only imagine. Twenty years ago, we had Apple II computers; there were no cell phones, Internet access, scanners, digital cameras or Palm pilots in our school. We cannot predict the digital machines of the future. We must give our students the problem-solving skills they will need to master these new tools.

School Improvement Plan

Christ the King School is accredited through the Michigan Non-Public Schools Accrediting Agency; we are in the seventh year of the seven year cycle, slated for review next fall. The following concerns were noted regarding the computer curriculum:

concern	response
increase integration of classroom work with computer lab activities	Info sheets@ are filled out by all teachers listing focus of each subject area for that week; activities in the computer lab and library are planned to correlate with this information.
expand network/internet access	The computer lab and library were wired in 2003. The two science labs were wired in 2004. The office was wired in 2005. Wireless routers provide access in most parts of the building.
provide support for teachers who are not comfortable using new technology in the classroom	This is no longer an issue; a few older teachers have retired and the current staff rates high in techno-literacy.

Section 4 - Curriculum Integration

Standards

The Michigan Educational Technology Standards and Expectations provide the framework for the computer curriculum at Christ the King School. These standards have been summarized below. Each standard will be noted in the weekly lesson plans for the computer lab for all grades, thereby providing documentation of alignment.

By the end of grade 2, each student will:

- \$ discuss the basic components, operations & care of basic devices
- \$ discuss social, ethical & human issues related to technology
- \$ use productivity tools in a learning environment
- \$ share information electronically
- \$ gather & analyze information electronically
- \$ employ problem-solving and decision-making skills

By the end of grade 5, each student will:

- \$ use keyboarding, other peripherals & storage devices, various search strategies to complete projects
- \$ discuss social, ethical & human issues in an age-appropriate way
- \$ use productivity tools with more options and greater creativity
- \$ share information to communicate with an audience & collaborate with peers
- \$ gather, analyze & evaluate various sources of on-line information
- \$ collect, organize & evaluate information related to real life problems

By the end of grade 8, each student will:

- \$ operate a computer & peripherals efficiently
- \$ discuss security, risks of social networking, consequences of unethical use
- \$ use the available technology to increase learning & productivity
- \$ communicate via a variety of tools
- \$ use online resources for research
- \$ use data to develop higher-level problem solving skills

Strategies and Descriptions

Technology is a tool for learning, one that is fundamentally transforming our educational system. It demands a new approach where students are learning to build their own base of knowledge and understanding while the teacher serves as guide and mentor. This will be accomplished through the following strategies:

- § using inquiry-based teaching materials (such as FOSS science curriculum, which was implemented in Sept. 2005) to engage students in hands-on projects that demand critical thinking while developing teamwork and communication skills.
 - < The FOSS science curriculum has a computer component that provides CD and web-based activities for each unit. Students continue their science work on each unit when they come to computer class.

- § integrating the daily curriculum (in any subject at all grade levels) with the skills being learned in the computer lab and the library.
 - < The content of the lessons in the computer lab are based on the Ainfo sheets@ provide weekly by each teacher. This requires close interaction between the classroom and the computer lab. Many teachers are designing classroom activities that require on-line research and presentation. Even second graders are using Powerpoint successfully.

- § using the websites of the textbook companies to provide additional practice, review or enrichment.
 - < Houghton Mifflin Language Arts and Social Studies sites, as well as Scott Foresman Math sites, are used to improve academic achievement.

- § documenting the alignment of the curriculum of the computer lab with the Michigan Educational Technology Standards (METS) for all grade levels.
 - < METS correlation will be noted in the computer lab weekly lesson plan book. This will insure that all standards are being met at the appropriate grade level.

Section 5 Student Achievement

The following items are specific examples of how technology can be integrated into the school curricula in the content areas. These examples are based on actual lessons from 2008-09 computer lab instruction that were identified by the staff as being successful in improving academic achievement.

Preschool

Children used the software, Sammy=s Science House, to explore classification of living beings according to several criteria (i.e., insects with wings, animals with 4 legs, things that can swim).

Kindergarten

Using the pbskids.org website, the children were able to practice short vowel sounds and blending sounds to make words. This was a direct correlation with the work they were doing in language arts.

First Grade

Using Word, the students typed in their spelling words every week. They were given a list to copy from; the words were typed in a list, printed and taken home. This activity provided review and practice in a new way. The teacher reported that the spelling scores improved with this activity.

Second Grade

Students did research on-line to find pictures and facts about a specific animal. This information was used to create individual reports on the animals.

Third Grade

The students learned to cut and paste pictures (using Google images) into a Word document for a social studies report. They enjoyed sharing their work with their peers.

Fourth Grade

Working in small groups, the students did on-line research about a topic of choice, then used PowerPoint to design their presentation. This project was done in a cooperative setting with the second graders.

Fifth Grade

The students did on-line research about solar energy. The project ended with a hand-made display of a solar house as part of a science assignment.

Sixth Grade

Students explored a virtual math site to study spatial relationships and geometry.

Seventh Grade

Students used Excel charts and graphs to display data from a social studies project.

Eighth Grade

Since these students have a solid background in using the computer as a word processing tool, their work was expanded to include podcasting. As a project for graduation, the students scanned their photos and completed the process in art class.

Timeline for technology integration

Christ the King School has a solid foundation of technology integration. The computer lab exists to support the curriculum. It has become a center for new ways of learning, new approaches to instruction, and new methods of improving academic performance. It will continue to grow into the curriculum, perhaps to the point of disappearing. When the use of technology has been completely integrated into the curriculum, there may be no need for a lab. The technology will be infused invisibly into the classroom itself. Perhaps there will be no classroom, either.

At this point, the use of technology is evident in every subject. In the next few years, the change will be in the level of Internet access and the types of computing devices used.

This can best be understood from a historical perspective:

year	computer lab activities	integration w/ curriculum
1986	LOGO on Apple II	none

1996	educational games on PCs word processing	math and language arts
2006	web activities on-line research productivity tools creative expression Palm pilots scanners digital camera school network	all subjects (science, social studies, language arts, math, art, music) at all grade levels
2007	expanded use of hand-held devices (Palm pilots)	all subjects, all grades
2008	internet access in all classrooms	all subjects, all grades
2009	laptops for junior high students	all subjects, all grades

Section 6 Technology Delivery

The Title One program, provided by 21st Century Learning, used interactive video presentations with some of the students. As an elementary school, we have not seen the need to be involved in distance learning for our students, although many of our teachers have taken on-line courses. This may be an area for further study, especially for some of our high-achieving junior high students.

Section 7 Parental Communications & Community Relations

This plan will be presented to the parents at our school Open House in September. Although it may not have been approved at that time, it is important that parents are aware of it. A few parents have already worked on the plan itself. Their input has been invaluable. Once the plan has been approved, it will be posted on our school website. Print copies will be available in the school office.

The school website is a good means of reaching parents. Many teachers also maintain their own websites, as well as using email for communicating with

parents. The school database now includes parent email addresses. Notices can be sent out to the entire group or to any subgroup (kindergarten parents, only). We must remember, however, that not all parents have daily access to the Internet. Therefore, all communication must be done in print, as well.

We have two multimedia projectors which are used for large group presentations with parent groups. This is a good way to showcase student work.

We are very fortunate to have a few very involved parents who have contributed to the development of this technology plan. They have worked with us on many projects and will continue to do so in the future. Their names are listed in Section 2.

Section 8 Collaboration

As a parish elementary school, we have had only one direct contact with adult literacy programs. In 2004, we collaborated with the Marie Madeleine Project which provided senior citizens an opportunity to work with junior high students on computer activities. The seniors learned how to scan personal photographs and post them to a website. The students enjoyed their interaction with the seniors; the seniors found the technology both challenging and rewarding.

Part of our building is used by the St. Vincent and Sarah Fisher group which provides an adult literacy program. This project is a vital part of our urban community.

Section 9 Professional Development

- the computer lab teacher - attends workshops and MACUL conferences
 - reads educational technology publications
 - meets with other technology coordinators
 - makes use of RESA support
- < is responsible for a staff in-service on technology (end of Sept.)
 - What is available?
 - What else is needed?
 - How can we get what we need?
 - How will this improve student learning?
- < trains individual teachers as necessary

- the school principal is responsible for disseminating information about professional development opportunities that focus on curriculum integration. All teachers are encouraged to attend at least one off-site workshop in this area.

Timeline for professional development

Sept. of every year	technology show & tell	teachers will meet to share tech info computer teacher will introduce new technologies
Oct. of every year	MANS conference	teachers select workshops to attend with emphasis on use of technology in the classroom
Jan. - June of every year	various workshops	teachers choose off-site workshops in their area of interest
March of every year	MACUL Conference	computer lab teacher attends

Information regarding state and national standards for teachers and students will be given to teacher at the September in-service. First, an informal survey will be conducted to determine each teacher's level of techno-literacy. This will lay the groundwork for future training sessions. Evaluation will be based on NETS for teachers (National Educational Technology Standards) as well as the METS for students.

Section 10 Supporting Resources

Christ the King School will utilize the resources of the Archdiocese of Detroit Office of Education, Wayne County RESA, MACUL, ASCD, ISTE. The computer lab teacher reads numerous publications regarding technology and education and shares information with the rest of the staff. The members of the staff, the School Committee and the Parent Teacher Group will continue to meet with the technology planning committee for the duration of this plan.

The administration will provide in-service time for teachers to enhance their skills.

Section 11 - Infrastructure Needs/Technical Specs & Design

Current Hardware Inventory (updated June 2009)

- < audio headsets in the primary classrooms
- < audio headsets (24) in the computer lab
- < overhead projectors in all K-8 classrooms
- < classroom computers (2-4 in each room)
- < one laser printer in each classroom
- < two computers and a printer in both science labs, with Internet access
- < two computers and a printer in the library, with Internet access
- < one computer and printer in the office for teachers, with Internet access
- < four computers in the office, each with their own printer, not networked
- < twenty-six computers in the computer lab (Pentium II), networked to laser printers with Internet access
- < high speed Internet connection provided by Comcast, services the office, the library, the computer lab, the two science labs and the Title One room
- < wireless routers, hubs & switches
- < scanner
- < a digital camera
- < a camcorder
- < three laptops running Windows XP
- < two multimedia projectors
- < five sets of Lego Mindstorms (construct & program robots)
- < three TV sets with VCRs and DVD players
- < CD players in every classroom
- < 30 palm pilots with a charging station

Current Software

- < Windows 2000 on all computers, Win XP on laptops
- < Office 2000 (Word, PowerPoint, Excel)
- < My Invoices (for latchkey billing)
- < Database Professional (for office use, still working on it)
- < a collection of very old but very educational programs such as

- < Bailey's Book House
- < Sammy's Science House
- < Money Math
- < Telling Time
- < miscellaneous educational CDs donated by parents

Network infrastructure

The computers are connected via Cat5 cabling throughout the building. The work was done in three separate segments with donated manpower. The network is maintained by the computer lab teacher. Our internet connection is provided by Comcast.

Telecommunications

The school participates in the E-rate program for discounts on telephone service.

Future Needs

Any hardware or software needs will depend on available donations. This has worked for us in the past, and we are hopeful it will work the same way in the future.

Interoperability of equipment

The computer lab teacher has learned to repair, replace, upgrade, and install any piece of equipment or software as needed. She uses many resources---a local computer store, knowledgeable parents & friends, computer publications and on-line databases. Upgrading and new acquisitions are not in the budget. We take what we are given, scavenge whatever else we need and use what we have to improve academic performance. A timeline for technological acquisitions is included in section 13.

Technical support

The computer lab teacher has met with technology people from other schools in the area. She also attends conferences (MACUL member) and local workshops as part of her professional development. She subscribes to several publications about technology and learning. This network provides some support, as well as the online tech support provided by many companies.

Section 12 - Increase Access

The computer lab is open before and after school for students, parents and staff (6:30am - 6:00pm). Each class has one scheduled computer class. Also, there are blocks of time during the school day when teachers can bring their class down for projects. The expansion of the lab (by knocking down a wall and installing larger workstations) has created more work space for students. There is a sign up sheet for the computer lab to avoid conflicting schedules.

Internet access is strategically placed in all areas of the building, so that no one is more than a short walk from a wired computer or wireless router. This allows access at any time of the day.

The multimedia projectors are very popular, especially when used for Powerpoint presentations done by the students.

The computer lab is often used by parents who do not have Internet access at home or at work. They are welcome to come in at any time.

The information contained on the school website is also available in print form, since many of our parents do not have Internet access. Email is a good form of parent communication for those parents who can be reached that way. We are always looking for alternative methods of reaching parents (newsletter, phone reminders, email, face-to-face on the parking lot).

Section 13 - Budget & Timetable

There is no line item in the school budget for technology. This will probably not change in the near future. Our limited income covers the bare essentials (salaries, benefits, insurance, and utilities). This technology plan may be unique in this aspect: there are no funds earmarked for upgrades, expansion or replacement, except those requested through Title IID. This does not mean, however, that our program lacks sustainability. On the contrary; necessity is the mother of invention and we have invented many ways to get what we need. Our equipment is adequate for our needs. We are committed to maintaining a quality program for our students.

All of the equipment in the school has been donated, refurbished or funded by an outside source. We have received generous donations of used equipment from parents, current and former, that we use as needed. Dr. Jim Payne set up the cable

network for us at no cost. Through a little luck, some good connections and lots of hard work, we have been able to provide a very good computer program at very little cost.

Original Timetable

year	equipment	source & est. cost if paid for	
2006	expand computer lab, replace desks to provide more workspace	donated manpower (50 hrs.) done donated desks (\$500) done	
	replace 3 office computers	donated CPUs (\$300 & 5 hr.) done	
	repair CPUs in the computer lab (25)	donated inventory (\$250)	done
	add multimedia projector for computer lab	technology funds? (\$1000) done	
2007	upgrade or replace computers in lab	look for donations (\$3000) done	
	shift lab computers to classrooms, upgrade electrical system in rooms	no cost donated manpower (25 hr.)	no no
	connect all office computers to Internet	donated manpower (5 hr.)	no
2008	replace printers as needed	donations (\$500)	done
	expand Internet wiring to remaining classrooms	donated manpower (25 hr.)	no
2009	provide Jr. High students with laptops	technology funds? (\$10,000)	no

Note: projects marked “done” were completed as of June 2009. Those marked

“no” have been carried over to the amended timetable on the next page.

Amended Timetable

Year	Project	Source & est. cost
2009	expand Internet wiring to remaining classrooms & all office computers	donated manpower (25 hr.)
	use online resources to supplement/replace textbooks in jr. high	no cost
	expand after school program (the ezone) to include digital photography & movie making	no cost
	Replace /repair overhead projectors as needed	Fundraiser (\$500)
	Repair/replace classroom screens as needed	Fundraiser (\$500)
	Replace headphones in computer lab (24)	(\$250)
	Implement automated library system	Fundraiser (\$3000)
2010	provide Jr. High students with laptops	Grant money? (\$10,000)
2011	upgrade electrical system in classrooms	donated manpower (25 hr.)
	acquire more (3) LCD projectors	Grant money (\$1500)
2012	replace desktops with laptops in classrooms / lab	Grant money (\$5000)

Section 14 Coordination of Resources

We utilize available title money for our school. We have applied for various grants (Skillman Good Schools, Best Buy, MACUL, to name a few) and will continue to do so. We use the REMC bid list for purchasing. We will continue to be techno-

scavengers to overcome budget constraints

- < learning to repair equipment as needed
- < nurturing community partners who provide used equipment
- < refurbishing extra computers for school families
- < making good use of whatever equipment we have

Section 15 Evaluation

The technology committee will meet quarterly to evaluate the effectiveness of the increase integration of technology and instruction.

Several measures will be used: mastery of the METS by a sample of students (conducted by the computer lab teacher), a written survey of all teaching staff (conducted by the technology committee), and observations by the principal in the computer lab and the regular classroom (conducted by the principal).

Unmet goals will be addressed by the school improvement committee in their annual report. Strategies for modifying the implementation of the plan will be discussed.

All of the above information will be shared with the school staff and the School Committee.

Section 16 Acceptable Use Policy

CHRIST THE KING SCHOOL Acceptable Use Policy

This Acceptable Use Policy (AUP) defines guidelines and consequences for all users of the Internet at Christ the King School. This signed statement must be returned before a student is given Internet access.

Responsibilities of the School

- < to provide age-appropriate access for students through AOL@SCHOOL and selected search engines
- < to monitor and supervise students working on-line
- < to correlate on-line activities with classroom curriculum

Responsibilities of the User

- < to use the Internet in accordance with the school=s code of conduct
- < to follow the directions of the adult in charge

Students are not allowed to visit social networking websites, send or receive email or visit chat rooms without a teacher’s permission.

Failure to follow these guidelines will result in loss of Internet access privileges as determined by the school administration.

I have read and agree with this policy:

Student= Signature _____ Date _____

Parent= Signature _____ Date _____

This document is sent home at the start of the school year. An explanatory cover letter is included. It is returned with signatures and kept on file.

Our AUP recognizes existing federal requirements for privacy and Internet safety. Since our school receives E-rate funding only for telephone service, our compliance with the Children=s Internet Protection Act is voluntary. We discuss the following with parents and students:

The Internet safety policy addresses the following issues:

- _ Access by minors to inappropriate matter on the Internet and World Wide Web
- _ The safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications
- _ Unauthorized access including "hacking" and other unlawful activities by minors online
- _ Unauthorized disclosure, use, and dissemination of personal information regarding minors
- _ Measures designed to restrict minors' access to materials harmful to minors