

Technology Plan

July, 2009 to June, 2012
Rev.2

For

Crossroads Charter Academy

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District Code : 54901
ISD : Mecosta-Osceola Intermediate School District

URL :<http://www.ccabr.org/techplan0912.pdf>

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Description of the District

Crossroads Charter Academy is a public school academy chartered by Grand Valley State University and located in the city of Big Rapids. Crossroads' first year of operation was the 1998-99 school year when it opened with grades kindergarten through eighth and with two sections at each grade level. Each year the subsequent grade has been added culminating with the addition of twelfth grade. The enrollment the first year was 329 and for the fall of 2008 was just over 570. The success of the school resulted in the addition of a third section of kindergarten for the 2000-2001 school year and the additions of a third section for first and second grades in the following two years. This continued with the addition of the third section of third grade in 2003-2004 and an addition of a third section of fourth grade in 2005-06.

Crossroads Charter Academy operated in a single building for the first four and a half years of its existence. The growth required additional space and in January, 2003 a new high school was opened for grades nine through twelve. In August, 2005 a new gymnasium, cafeteria, new research computer lab and seven new classrooms were added to the high school. The new building now includes the seventh and eighth grade students. The original school now houses the kindergarten through the sixth grade. In 2008 new administrative offices were added. There were eighty-five administrators, teachers, and support staff last school year.

The student population is comprised of kids from every district in the ISD with some from as far north as Cadillac and as far south as White Cloud. Each of the past five years Crossroads has also hosted three exchange students, for 2008-09, that number jumped to five. Most of our students come from the local area and are from lower to middle income families. The free and reduced lunch count for the current year is forty-eight per cent.

District Mission, Vision, and Values Statements

CROSSROADS CHARTER ACADEMY CCA MISSION STATEMENT

Developing students' lives to positively impact the world through academic excellence and higher moral character.

CCA VISION STATEMENT

Our vision is to be the #1 School of Choice in our area, through excellence in values and education.

CCA CORE VALUES...

Embracing excellence in:

- higher moral character and integrity
- academic achievement
- a safe, nurturing environment; physically, mentally, and emotionally
- diversity by respecting differences
- resource stewardship
- life long learning and leadership
- life skills development
- community service
- critical and creative thinking

District Buildings:

Kindergarten – Sixth Grade Building
215 N. State Street
Big Rapids

Middle and High School Building
215 W. Spruce Street
Big Rapids

Crossroads Charter Academy Technology Department

Vision Statement

The mission of the Crossroads Charter Academy Technology Department is to assist the teachers and support staff in utilizing the latest technology thus facilitating the instruction of students in the most exciting, comprehensive, and time-efficient methods possible. Imparting the knowledge that technology plays in effective communication and in life long learning. Additionally, the department strives to tutor teachers and support staff in using technology to more effectively assist the interaction between staff, students and parents.

Goals

- Provide and support technology involved in the educational setting including but not limited to audio, visual and computer related equipment.
- Provide and support technology to assist teachers and staff automate routine tasks in order to have more time with students or in preparation for class time.
- Provide opportunities for staff to achieve proficiency in using technology for communications, self-educational purposes and working with students and parents.
- Provide teachers and students with the equipment to effectively communicate in the information age.
- Provide students with the ability access information and learning opportunities inside and outside the classroom including but not limited to streaming video, shared access with other local school districts and the ISD.
- Provide each individual classroom with outside communications to have an immediate update of current world and local events.

With the addition of a Professional Learning Center (PLC), our teachers have a place where they can meet on a one-to-one basis or in groups, or with our Curriculum Director, who has a highly technical oriented facility. This allows the Curriculum Director to keep up with the latest state school testing requirements as well as other requirements necessary to keep up with school standards. Information can then be provided to all teachers and other professional staff members in a way that allows them to glean the knowledge they require for ensuring our school is at the highest level possible.

Technology Committee

Brian Pickett, Director of Technology
Ross Meads, High School Teacher
John Lowery, High School Computer Teacher
Kendall Schroeder, K-6 Staff Rep
Tom Saporito, High School Staff Rep
Ron Schneider, Administrative Rep
Charissa Talsma, Curriculum Coordinator
Rebecca Goettl, Parent Rep

Curriculum

A. Curriculum Integration

Technology has played an integral part in improving the academic achievement of students at Crossroads. Two important aspects of this integration are the use of computers in improving literacy through the Accelerated Reader program and in improving math skills through the Accelerated Math program. The Accelerated Reader program enables students to take tests online on books which they have read. It then tracks progress and provides valuable feedback to teachers. The Accelerated Math program prints worksheets for students in their particular area of deficiency and tracks their progress until mastery is achieved. Two software programs (Star Reading and Star Math) are used to determine reading levels of students and to identify areas of math deficiency. Fluent Reader is used to allow special needs students to be evaluated to their reading level. These programs can all be done simultaneously for a whole classroom and can quickly provide assessments. The Teacher Technology Initiative (TTI) provided many of the teachers with laptops. Crossroads has coupled this technology with LCD projectors so that teachers can make presentations to their whole class. The addition of streaming video through United Streaming will greatly enhance the ability of the teachers to show pertinent videos and incorporate them in presentations. Students in grades first through sixth have weekly instruction in computers and computer applications. Integration is made between the skills being taught in the computer lab allowing homeroom teachers to refer back to these skills in future lessons.

Specific Technology Curriculum Integration Goals

1. Expand use of Accelerated Math into the middle and high school.
2. Increase by 10% students scoring “proficient” on the state math test by aligning the Accelerated Math program objectives to the Saxon Math objectives and both to the Mathematics Grade Level Expectations as stated in the Michigan Curriculum Frameworks. We would like to expand this program through the middle school and into the high school.
3. To increase the number of teachers who are regularly using technology for instructional purposes by 50%.
4. To increase the number of students scoring at grade level on reading comprehension scores using the S.T.A.R. computerized test by 5%, by implementing the “Fluent Reader computerized” program with Title I and At-Risk students
5. To increase by 50% the number of high school students enrolled in Advanced Placement courses through Michigan Virtual High School.
6. Since the 2005-2006 school year, CCA has used a computer-based adaptive testing solution called the Measures of Academic Progress (MAP). This program is accessed through Grand Valley State University and is processed by NWEA (The Northwest Evaluation Education Association), a national non-profit organization dedication to

helping children learn. Crossroads participates in the fall and the spring testing sessions. Our teachers must continue their training in the MAP process, and we must make the necessary technology adjustments to maximize the effectiveness of the program.

B. Student Achievement

Mention was made in the previous section regarding the use of Accelerated Reading and Math in helping students achieve success in the reading and math areas. The Accelerated reading program has fostered an interest in reading and enabled students to read at their level. The results obtained through the software enable the teacher to determine whether the student is being adequately challenged. The addition of video streaming will allow teachers to add pertinent video to their lectures and classroom presentations.

C. Technology Delivery

Technology has allowed Crossroads Charter Academy to access both resources that can be used in the classroom and educational opportunities not available at the local level. Many teachers have used REMC for videos that are used to augment classroom instruction. The addition of video streaming has made it much more convenient for them to access the materials and tailor them to fit the needs of their individual class. The use of the Internet has been a tremendous resource in research. The computer labs have allowed the teacher to take their entire class to the lab, have them work individually on a computer, and monitor research as it is being done.

D. Parental Communications & Community Relations

Crossroads believes that parents are a vital part of the educational process. Technology is used to communicate with them on a timely basis regarding their child and his/her progress and also to communicate general school news. Crossroads has established a website at www.ccabr.org and posts announcements to the website daily. The website also has pages posted by the individual teachers with pictures and information regarding current subjects in their classes. One key aspect of parental communication is the student information available through "Family Access." This allows parents to access information on their student through a secure site. This data includes food service, attendance, and discipline information, as well as grades and assignments. Teachers have email accounts through the school website that allow not only internal communication but also ease of communication between parents and staff. Crossroads requires that teachers check email frequently to ensure that communication occurs on a timely basis. Technology is a frightening area to some parents. To assure parents of how their students will be using technology, to acquaint them with the technology plan, and to demonstrate the "Family Access" software, a meeting is held at the beginning of the school year with the director of technology. This enables Crossroads to demonstrate the software and answer any questions or concerns parents may have related to technology.

E. Collaboration

Technology collaboration between CCA and the Mecosta Osceola Intermediate School District has really improved. We currently cooperate with e-mail, Skyward, Pearson Data System, and have many other tech connections. It is important we continue to seek all partnerships that benefit our students and staff. We want to investigate any possible connection to Ferris State University. The classes available through Michigan Virtual University and a credit recovery program through Keystone, coupled with the high speed Internet connection available at the school, continues to work well.

Crossroads Charter Academy does not provide adult literacy nor GED services due to these programs being offered by the local Michigan Works Office.

Curriculum timeline

Fall 2010

- Evaluation of technology integration
- Classroom technology training for teachers
- Increased AP course enrollment

Spring 2010

- Increased use of M.A.P. analysis engine by teachers
- Accelerated Math integration into middle school
- Fluent Reader integration into middle school
- Integration of mobile computer lab into curriculum

Fall 2011

- Evaluation of technology integration
- Classroom technology training for teachers
- Increased AP course enrollment

Spring 2011

- Increased use of M.A.P. analysis engine by teachers
- Accelerated Math integration into high school
- Fluent Reader integration into high school

Fall 2012

- Evaluation of technology integration
- Classroom technology training for teachers
- Increased AP course enrollment

Spring 2012

- Reevaluation of usefulness/purpose/effectiveness of MAP testing
- Reevaluation of usefulness/purpose/effectiveness of Accelerated Math
- Reevaluation of usefulness/purpose/effectiveness of Fluent Reader
- Recommendation for further use of these tools

II. PROFESSIONAL DEVELOPMENT

F. Professional Development

Technology is only as effective as the people who are utilizing it. Therefore, a major focus of the technology department is to make sure that teachers are able to integrate the technology available to them into the classroom. Training in technology is done through various means and focuses on the use of technology to improve preparation skills and daily tasks, presentation of material in the classroom, and student involvement through the hands on use of technology.

Reference and training materials for the software supplied by the school will be available as a resource for teachers and staff. Teachers adept at various software will also be used as a reference for other teachers. Access to REMC training materials will also be encouraged.

Training has been done at Crossroads with someone from the ISD regarding the use of video streaming and its integration into different programs. Teachers are encouraged to take advantage of many of the training classes offered at the ISD.

G. Supporting Resources

There are a number of resources that are used to support the technology program at Crossroads. One primary form of communication with parents has been the use of the school web site. Daily announcements are available on the main page and the school calendar shows activities for the entire year, in an easy-to-follow format. A weekly building wide newsletter, current classroom events, athletic information is available with schedules, driving directions, results, and descriptions of the coaches, can also be found on this site.

Students and all staff members are encouraged to participate with contributions to the web site. This includes writing articles, taking pictures and adding special information to certain areas of the web site. Administrators contribute informational articles in the form or "Corners" on our website. One link on the site connects directly to a family access portion of the student data base which allows parents to check grades posted daily, attendance information, discipline information, and even lunch account information. The web page has been moved from a local hosting provider to an internal server, as a cost saving measure

School-based email system has improved communication between school staff, parents, and students. The Crossroads e-mail server was moved from a local provider to the ISD at a substantial savings to the district. We are planning to enter as many parent e-mails as possible into a distribution list starting in the fall of 2009. The idea is to electronically

share information, changes, schedules, and even class request information with as many parents as possible. We want to eliminate as many mailings as we can, as well as substantially reduce our use of paper products.

Many teachers use the availability of United Streaming for streaming video through the Internet, and these technologies will be used more as training is given to the teachers.

One important supporting resource for the technology department is the involvement of the technology director in the ISD technology meetings. The pooling of information and knowledge has been a key factor in the progress of technology at Crossroads. The technology director at the ISD has been a very important resource and has been willing to invest time at Crossroads in a supportive capacity. Our technicians' employment partnership with the ISD is working well and benefits both parties.

INFRASTRUCTURE, HARDWARE, TECHNICAL, SUPPORT AND SOFTWARE

H. Infrastructure Needs/Technical specifications, and Design

General Information about the District Network

Crossroads intranet is comprised of a primary backbone of both fiber and copper all running at 1Gbps, with both 100Mbps and 1Gbps connections running to the work stations. The connection to the Internet is provided through the Mecosta-Osceola ISD Wide Area Network at 40Mbps.

Network applications and services are provided to users on four servers running Windows 2003, with the web page being served on a Windows Server 2000 system. The district is in the process of converting all work stations over to Windows XP Professional for access control, security and consistency, from Windows XP Home, Windows Vista Home, and Windows 2000 Professional.

General Information about the District Hardware

The focus for computer usage determines the placement of computer hardware in the district. The primary placement for computers is in three computer labs. There are 26 student computers in the K-6 lab (approximately eight years old); 24 student computers in the high school teaching lab (approximately six years old); and 24 computers in the new MS/HS lab (approximately two years old). There are four computers available for student use and testing in the library. Each classroom, second through eighth grades, has three computers – one for the teacher and two for student use. Kindergarten, first, and all high school grades have one computer in the classroom, primarily for teacher use. The computers in all labs use Windows XP Professional as their operating system and have Microsoft Office 2003 for word processing, spreadsheets, and presentations.

Administration and support personnel have computers for word processing, access to the main student and financial databases, and access to email for communication with parents and school personnel. Internet access protection for the district is handled by a Fortinet 100, but will shortly be replaced by an ISD wide firewall and content filter provided by Fort iGATE.

General Information about the District Telecommunications

The entire district is connected through one phone system allowing intercom calls between all phones. An updated system was installed in the summer of 2005 to allow outside line access from all classrooms and the ability to make 911 calls from any phone in the building. Outside line access is protected by requiring a code before dialing outside numbers. School wide paging is also done through the phone systems and zones are divided so that the K-6 building and the high school can be paged separately or together. Cellular phones are provided to the members of the administrative council to

maintain close communication. Walkie-talkies are located in the school main office to communicate with administrative council members, maintenance workers, and playground assistants, as well.

General Information about the District Software

Most of the computers in the district use Windows XP Professional as their operating system and are connected through the network to Windows 2003 servers. The vast majority of teaching staff are in possession of laptops, allowing them to work from any location, as the Skyward grading system is accessible from the Internet, by both staff and parents.

Future Technology Needs

The first area of priority for Crossroads future technology needs are those of the classroom. Currently approximately 80% of the teachers have a laptop; however, these systems are aging quickly, some nearing six years. The classroom student systems are mostly over eight years old. It is further deemed priority that the remaining 25% classrooms be fitted with LCD projectors. In the last year Crossroads has made significant advancements in its networking infrastructure, for the purpose of allowing teaching staff to take full advantage of the Internet.

The increased use of the Internet as a primary means of research has caused the computer labs to be overloaded; space is also a key factor. The solution appears to be a wireless mobile laptop carts; possibly two for the high school and one for the K-6 building. High school staff has shown great interest in this concept as well as some form a “Promethean” type of feedback system, to accompany this lab.

District Technical Support

One person handles all of the direct technical support for the district – the Director of Technology at the MOISD. This person is responsible for the support of all audio, visual, telephony, digital, and security equipments used by the K-6 school and the Middle/High School. This position is filled by Mecosta-Osceola ISD technicians three days per week year round.

Increase Access

The goal of the Crossroads Technology department is to allow all students and teachers to have equitable access to technology. This involves not only access to the hardware but also access to the training necessary to use that technology. The computer lab in the K-6 building is used about 70% of the time for scheduled classes. This allows time for teacher to sign out the lab to bring their entire classes in or send students down to use the lab. The computer teaching lab in the high school building is used six of seven class periods during the day for scheduled class instruction. The computer lab in the high

school building is used for 30% of the day for scheduled class instruction. The remaining hours are for classes that wish to reserve the lab for research and other student supervised classroom workgroups, which equates to approximately 70-80% utilization. Education is requiring more and more use of the computer. This is no problem for many students who have access to computers at home but it does pose a problem for other students. The technology department would like to solve this problem by combining the service hours required of all high school students with the after-school availability of the computer labs. Students will be able to work on school related research or homework under the supervision of staff or parent volunteers. Some students have learning or physical impairments that limit their ability to use computer technology to its fullest potential. These students will be aided by the technology department through the provision of certain computers with voice recognition software and touch screen technology. This will enable those students with certain physical impairments to minimize their difficulty in accomplishing class work and allow students with writing impairments to communicate thoughts without having to struggle with the writing and spelling process.

J. Budget and Timetable

	2009/2010	2010/2011	2011/2012	Total
Personnel	\$40,000	\$41,200	\$43,672	\$124,872
Hardware	\$6,000	\$6,360	\$6,551	\$18,911
Software	\$11,000	\$11,660	\$12,010	\$34,670
Networking	\$1,000	\$1,060	\$1,092	\$3,152
Internet Services	\$8,400	\$8,904	\$9,171	\$26,475
Phone/Voice Mail	\$12,000	\$12,720	\$13,102	\$37,822
Infrastructure	\$3,000	\$3,180	\$3,275	\$9,455
Supplies	\$9,000	\$9,270	\$9,548	\$27,818
Replacement	\$20,000	\$21,200	\$21,836	\$63,036
Maintenance	\$5,000	\$5,300	\$5,459	\$15,759
Professional Development	\$3,000	\$3,180	\$3,275	\$9,455
Total	\$114,400	\$120,064	\$124,902	\$371,729

K. Coordination of Resources

The yearly budgets detailed above are based on funding from the regular budget of the school. Application was made for USF funding for the 2008-2009 year and will continue to be made. Grants are being pursued for implementation of the wireless laptop lab and for purchase of software for research. The technology plan can be sustained from the general budget but the grants would enable progress to be made quicker. Purchasing of technology has greatly benefited from the state pricing available from REMC. Training sessions on the use of technology provided by the ISD have also been used for teacher training.

L. Evaluation

While it is mandated that this technology plan must be updated every three years, technology changes much faster than that. With this in mind Crossroads Charter Academy requires that the technology committee review this plan no less than once a year, preferably in the spring. Achieved goals must be replaced with new, and unmet goals evaluated. A report will be generated explaining the details for the failure of this goal, and will be presented to the district superintendent, for direction. This plan must also be reevaluated and updated immediately to reflect changes to any of the following: technology personnel, budget, infrastructure, philosophy.

M. Acceptable Use Policy

The acceptable use policy for the school is included in appendix B. No student is allowed to use computers in the school until this form has been signed by both the student and one parent and returned to the school. Crossroads has endeavored to meet all federal requirements for both privacy and Internet safety. The mandates of CIPA required the implementation of an Internet filtering system. There are two basic ways of filtering Internet content. One is to allow pre determined sites entrance through the filter and the other is to block specific sites from coming through the filter. The first greatly limits the Internet as an information resource while the second can still allow questionable content to come through. Crossroads has chosen to work with the Fortigate hardware and software to limit Internet access using the second means above. A service agreement with Fortigate for updated sites to block helps relieve the responsibility of the technology staff to constantly assess what sites need to be blocked. Should the necessity arise to use the first method, the current hardware and software have that capability.

The best method of limiting Internet access is by constant staff monitoring. This is accomplished by the setup of computers available for student logon. The only computers that students can log into are in labs that have staff supervision anytime there are students in present in the lab. All other computers must be accessed by staff and are to be keyboard-locked at all times when the teacher is not in the room. This is accomplished by using password-protected screen savers (set to automatically run at ten minutes or less) and constant encouragement to teachers to lock their computers manually any time they are not using them.

Appendix A Technology Timeline

2009-2010

Purchase of new computers for K6 teaching lab.

Purchase classroom laptops so that one hundred percent of the teachers will have this resource when working with students.

Purchase licensing to bring all systems up to the District Default Standard

Replace core District switch

2010-2011

Purchase and implementation of wireless laptop lab for the 7-12 building.

Replace old switches in K-6 school

Replace old switches in MS/HS school

Purchase of new computers for MS teaching lab

Purchase and install LCD projectors and screens into second half of the classrooms.

2011-2012

Purchase of new computers for HS teaching lab

Purchase and implementation of wireless laptop lab for the K-6 building.

Purchase and implementation of second wireless laptop lab for the 7-12 building.

Appendix B

Acceptable Use of Technology Policy CROSSROADS CHARTER ACADEMY Student Internet and Computer Policy and Procedure Agreement

Please Note: This agreement MUST be signed by both the student and one parent. This agreement is entered into this _____ day of _____, between _____, hereafter referred to as the User and Crossroads Charter Academy. The purpose of this agreement is to provide Internet access for educational purposes. The intent of this contract is to ensure that users understand and will comply with all acceptable use policies, terms and conditions for use of the Internet. Internet access is a privilege offered to assist in the collaboration and exchange of information, facilitate personal growth in the use of technology, enhance information gathering and communication skills, and to provide resources which will enhance the User's entire educational experience. In exchange for the use of the Internet resources at school and or away from school, I understand and agree to the following:

A. The use of the Internet is a privilege, which may be revoked by the school at any time for any reason whatsoever. Improper use of the Internet resources will give rise to further disciplinary action outlined in this policy.

B. Access to Internet resources is offered as a privilege for educational use only. Unacceptable uses of Internet resources include, but are not limited to, the following:

1. An infringement of copyright.
2. The transmission or viewing of any material which is pornographic in nature, abusive, racial, gender offensive, ethnically offensive, defamatory or an invasion of privacy.
3. The posting of goods and services and other transactions commercial in nature.
4. Activity viewed as detrimental to the stability and security of the Internet. These activities include, but are not limited to, an introduction of a virus to the Internet, malicious destruction of hardware, software or data on the Internet, attempting to learn or use accounts or passwords other than those issued to the User and or disclosing, for any reason, one's own password.
5. Any activity otherwise prohibited by law.

Crossroads Charter Academy reserves the right to determine, in its sole discretion, whether any use, material, or activity is acceptable or not acceptable.

C. The school or Internet resources are intended for exclusive use by their registered users. The User is responsible for his/her account, password, and or access privilege. Any problem, which may arise from the use of a User account, is the responsibility of the account holder.

D. The danger that e-mail can cause to Crossroads Charter Academy's computer system far outweighs any educational advantage that it may provide. Therefore, students are not allowed to check their personal e-mail on any school computer at any time. If a teacher sets up specific addresses or accounts for a particular class, a student may check only that address, only while in that teacher's classroom, and only while that teacher is present. Using school computers to "chat" online is NEVER permitted. This applies to chatting within the local area network and also on the Internet. On the Internet this includes any type of chatting, including any done while in games or in specific chat rooms. Violation of the rules in point "D" is not trivial and will be dealt with in a very severe manner.

E. The school does not warrant that the functions of the system will meet any specific requirements the User may have, or that it will be error free or uninterrupted; nor shall the school be liable for any direct, indirect, incidental or consequential damages sustained or incurred in connection with the use and operation of the system or inability to use the system.

F. The school reserves the right to monitor information, activity (including e-mail received on the school's computers, and file server disk space consumed by the User.

G. As a User, you are responsible for any and all activity associated with your access account.

H. Discipline for infractions of this agreement: The severity of the infraction and the intent behind the infraction will have a bearing on the discipline. Generally, the consequences will be as follows:

The first incidence: two (2) days of in school suspension and loss of computer privileges at Crossroads Charter Academy for the period of four weeks.

The second incidence: two (2) days of out of school suspension and loss of computer privileges for the remainder of the school year.

***Any homework that cannot be done because of the discipline that results from the student's infraction of the rules will still be required of them and they may not transfer out of the class because of the discipline their actions incurred. The homework must be done at home and the teacher may assign the student extra work to fill class time that would normally be spent on the computer. In consideration for the privilege of access to the Internet resources,

I hereby release Crossroads Charter Academy, Charter Communications, Inc. and the Mecosta-Osceola ISD., and their employees, agents, operators, stock holders, and board members from any and all claims of any nature arising from my use of, misuse of, or inability to use these Internet resources.

I agree to abide by these rules and regulations of system usage and such further rules and regulations as may be further added from time to time by the school. These rules will be available in hard copy from the school.

Signature of User Date

Printed Name of User

Signature of Parent/Guardian Date

Printed Name of Parent/Guardian