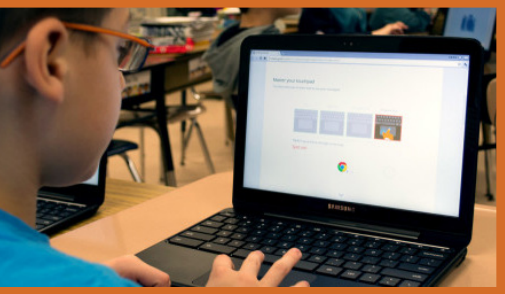
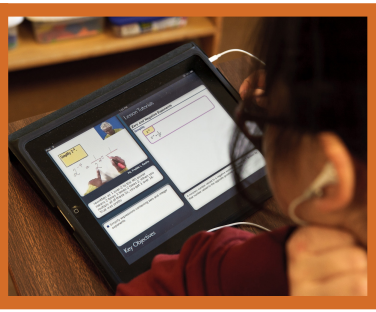
School City of Mishawaka...

Setting a Standard of Excellence





Technology Plan

2017 – 2023

In Collabortion with:

Technology Task Force

Dr. A. Dean Speicher, Superintendent

Dr. Theodore Stevens, Director of Curriculum & Instruction and Acting Technology Director

Electronic copy available at mishawaka.k12.in.us

TABLE OF CONTENTS

Setting a Standard of Excellence

2017 – 2023 Technology Plan

INTRODUCTION

SCM'S COMMITMENT: TRANSFORMING EDUCATION

We are committed to transforming education so that all children in the School City of Mishawaka (SCM) experience great learning. We envision a learning-centered system in which all children thrive in a personalized learning environment. The robust introduction of instructional and informational technologies in this Plan facilitates the School City of Mishawaka moving away from the teacher-centric to the learner-centric approach for instructional delivery. It is a paradigm shift from the industrial age to the networked age. Learners are connected in a network of stable and supportive relationships with adults and are encouraged to learn through self-directed discovery, with their peers and with the guidance of adults.

We live in a time of rapid innovation and entrepreneurship. We know more about how children and adults learn and what the elements of effective instruction look like. We also know more about how the human brain works. Advances in technology are facilitating learning in ways never before imagined. In SCM we are striving to offer personalized learning that is competency-based and has a wide range of learning environments and adult roles. In 2017, SCM will begin an initiative to paint a "portrait" of a 2017 MHS graduate. We will also continue to provide opportunities to make our students college, career, and citizenship ready.

The goal of education is to prepare our students to be productive members of society. To be productive in today's society, most occupations require the utilization of technology. In fact, according to the United States Department of Commerce, "Between 1998 and 2008, the number of domestic IT jobs grew by 26 percent, four times faster than U.S. employment as a whole. By 2018, IT employment is expected to grow by another 22 percent." In addition, the Department of Commerce goes on to state, "According to one estimate, as of 2009, advertising-supported Internet services directly or indirectly employed three million Americans, 1.2 million of whom hold jobs that did not exist two decades ago." Therefore, School City of Mishawaka needs to prepare the students that graduate from Mishawaka High School for those technology enhanced environments.

High-speed Internet access and online skills are not only necessary for seeking, applying for, and getting today's jobs, but also to take advantage of the growing educational, civic, and health care advances spurred by broadband. For example, an increasing amount of activities – such as taking college classes, monitoring chronic medical conditions, renewing your driver's license, and tracking your child's school assignments are now commonly conducted online. Whether School City of Mishawaka works to make students College, Career, or Citizenship ready, it is certain that they will all have an increased need to understand and effectively utilize technology. Like any tool in an educator's toolbox, technology offers an opportunity to reach students differently. Utilizing technology for technology's sake is not the answer. However, providing students opportunities to utilize and understand technology, while increasing their academic achievement, is a positive step. Though predicting the future has no guarantees, most would agree that providing them tools and skills to be successful after graduation is a core educational belief and school system responsibility.

http://2010-2014.commerce.gov/news/fact-sheets/2011/05/13/fact-sheet-digital-literacy

TECHNOLOGY TASK FORCE

Statement

The Technology Task Force (TTF) was formed based on a suggestion from several SCM Board members. The Community Collaborating Committee (CCC) supported this action in September of 2014. In the CCC's list of recommendations, technology expansion and blended learning approaches topped the list. In the spring of 2015, the original "TTF" was formed. This original group was crucial in quantifying a needs assessment in the school corporation. In the fall of 2015, new leadership was unveiled at SCM and a renewed focus was placed on the TTF. Many of the members of the original TTF remained while the group was expanded to include many more community members with technology expertise. The group was further tasked to investigate options that would result in a plan focused on student learning and providing tools to support teachers in their teaching strategies.

The TTF produced a document of strategies that are "recommendations" to the Board of School Trustees and the general public. All of the strategies directly impact student learning outcomes or student safety. The TTF went out of their way to produce a plan that had enough space for SCM leadership to make crucial decisions without sacrificing the integrity of the plan. In addition, the TTF focused a great deal of their efforts on technology that utilized a "blended approach" that would enhance "student-centered learning outcomes." Ultimately, the group synergized around the fact that the future of technology in SCM would be the brightest if time was dedicated to support quality professional staff development.

The committee members dedicated 9 (nine) sessions to discussing how student learning could be enhanced in SCM with technology. The members were separated into grade level sub-groups, where they mapped out specific technology initiatives that would be beneficial to improving student learning outcomes. These sub groups then made presentations of their findings as recommendations to the entire group in an effort to help the group prioritize the needs of the school corporation. The sub-group presentations are available on the SCM YouTube channel and can also be discovered in hard copy upon request.

In addition to a focus on student-centered blended learning outcomes, it was also discovered that enhancements to SCM teaching, communication with stakeholders, and safety/security could also be achieved with improvements to SCM's technology. Though it should be obvious that these improvements will improve student experiences at SCM, the group realizes that all of the strategy recommendations are necessary for quality education attainment to be sustainable as a school corporation.

Overall, the strategies recommended are a combination of what the sub-group felt would be "best practice" for SCM moving into the future. The Technology Task Force offers this plan to the SCM Superintendent, A. Dean Speicher, and the SCM Board of School Trustees to consider as a roadmap for future technology investments and projects.

Technology Task Force Membership

Name	Building	Area	Sub-Group
Theodore Stevens	Ad Center	Chair	All
Jen Smith	Ad Center	Project Manager	All
Chris Mabie	Ad Center	Technology Dept	MS
Alison Kerchner	Ad Center	Technology Dept	Primary
Mike Pettibone	Ad Center	Curriculum	MS
Eilleen Kalman	Ad Center	Exceptional Learners	All
Ron Gill	JYMS	Technology Dept	Intermediate
Angela Stillson	MHS	Library	MHS
Lisa Pethick	Oaklawn	Special Education	Primary
Robyn Leman	Battell	4th Grade	Intermediate
Sean Dillon	Battell	Physical Education	Intermediate
Nicole Brown	Beiger	Kindergarten	Primary
Julie Smith	Emmons	Intervention	Primary
Brandi Powell	Hums	5/6 Grade	Intermediate
Eric Johnson	LaSalle	6th Grade	Intermediate
Jackie Williams	Liberty	3/4 Grade	Intermediate
Jill Hassel	Twin Branch	DEEP	Primary
Shelly Sparrow	Twin Branch	2nd Grade	Primary
Matt Willmore	Mishawaka	Resident of Mishawaka	Secondary

Name	Building	Area	Sub-Group
Elise Goodman	JYMS	English 7	MS
Stacy Reisdorf	JYMS	Social Studies 7	MS
Brian Zbrzezny	JYMS	Social Studies 8	MS
Brandon Bennett	JYMS	English 8	MS
Brian Baumer	MHS	Algebra	MHS
Jeff Halicki	MHS	English	MHS
Patrick Hahn	MHS	Chemistry-Math-Physics	MHS
Lauren Richard	MHS	Media-Graphics	MHS
Kyle Sagarsee	MHS	English 12	MHS
Brandon Trtan	MHS	Social Studies-History	MHS
Janine Mabry	Liberty	Principal	Primary
Brad Addison	Emmons	Principal	Intermediate
Mike Babcock	JYMS	Assistant Principal	MS
John Ross	MHS	Assistant Principal	MHS
Chuck Lehman	Mishawaka	Collaborating	MS
Deb Fox	Mishawaka	PTA Council	Elementary
Jeramy St. Clair	Mishawaka	MEF	Secondary
Drew Johnson	Mishawaka	Mishawaka Bus. Assoc.	Secondary
David Straughn	Mishawaka	Resident of Mishawaka	Secondary

Primary = Grades K-2 Intermediate = Grades 3-6 MS = Middle School MHS = High School

VISION FOR EDUCATIONAL TECHNOLOGY

The Vision for the School City of Mishawaka Technology Plan is to create a technology-rich teaching and learning environment that transforms education for students.

THE MISSION OF SCHOOL CITY OF MISHAWAKA

Together we will equip our students with the knowledge, skills, and character necessary to excel in a dynamic and evolving world.

CORE BELIEFS ABOUT EDUCATIONAL TECHNOLOGY

SCM Core Values

- Academic excellence that promotes personal best, parental involvement, and teacher quality within a nurturing and safe environment.
- High expectations for students and staff that leads to high performance.
- A student-centered, positive learning environment that shapes responsible, respectful, and productive citizens.
- An innovative culture that encourages creative and critical thinking.
- Teamwork through collaboration among students, parents, colleagues, and the community.

Beliefs about Education Technology

Technology is a tool to use to enhance education. It is not a one size fits all solution. If a teacher has poor relationship and poor instructional practices, technology will not remedy that issue. Likewise, if a student has bad learning habits and organizational skills, technology will not remedy that issue either. Technology can and should be utilized in a blended learning model; meaning that staff and students will have the flexibility to use technology as a tool to ENHANCE learning and instruction, not a wholesale replacement for "traditional" paper-based learning and instruction.

Technology in the classroom is more than simply putting devices in students' hands. It is about utilizing that device to stretch the students' understanding. Technology creates opportunities to work collaboratively across the world, not just within the confines of the students' classroom. Technology enhanced instruction brings an infinite amount of possibilities to the classroom. Ultimately, the TTF identified the following pieces of evidence that they believe students will effectively demonstrate utilizing a "blended learning" approach to their educational process.

- SCM students will be more marketable and employable in the workplace because of their understanding of technology and their work related skills and habits. The learning outcomes that SCM aims to achieve are that successful students will be better prepared for the workplace, college, and higher education by understanding the basic technical knowledge needed to succeed.
- The students will perform an unassisted demonstration in technical processes and systems.
- The students will explain to third parties how technology is used in today's culture.
- The students will both verbally explain and physically demonstrate how to be a safe user and consumer of content.
- The students will perform an unassisted demonstration utilizing technology to solve one or more daily problems.
- The students will utilize technology to express themselves.
- The students will perform an unassisted demonstration on how to use technology to express themselves. Students will communicate in writing and utilize a spreadsheet to communicate information to disinterested third parties.
- The students will be able to explain how technology can be used to improve daily personal productivity.

COLLEGE, CAREER, AND CITIZENSHIP READY FOR LIFE BEYOND HIGH SCHOOL

Students are more than just the number they earn on a standardized test. Our nation's high schools strive to provide students with rigorous academic programs, personalized and career-specific learning experiences and social and emotional skills that prepare them to be global citizens in an ever-changing world. The scores on standardized tests are one of many potential indicators that demonstrate readiness for life beyond high school.

We are educating a generation of innovators – students who are driven by ideas and inspired by innovations. Students leave high school with the academic skills that make them College and Career ready, but they also leave with grit and perseverance to tackle and achieve their goals. They have the growth mindset that empowers them to approach their future with confidence, to dream big and to achieve big. Our students learn in a variety of ways. They should be able to demonstrate readiness in a variety of ways. We must look beyond standardized test scores and use multiple measures to assess and demonstrate that our students are ready to succeed in life beyond high school. *

In the very near future, SCM will unveil an initiative focusing on creating college, career and citizenship ready indicators for high school students. The leadership of the organization is ready to create a reality of student and staff success by using multiple metrics to measure SCM's educational success, not one high stakes test in isolation of other indicators of student success. We will create our own accountability system that measures and honors the quality work/results of SCM students and teachers.

**David R. Schuler, Ph.D., President AASA, Superintendent, High School district 214 and AASA: Redefining Ready, February 2016*

REVENUE ASSUMPTIONS

- That the SCM voters will support a $0.2434 tax increase for an Operating Levy Referendum which will generate $1,800,000 per calendar year between 2017 and 2023. The purposes of the Operating Levy funds will be to provide technology hardware and software for students and staff members, update educational program offerings, adjust class sizes and sustain employee compensation.
- That technology hardware and software purchases will level the quantity and quality of technology between Non-Title I schools (Hums and Twin Branch) and Title I schools. This new technology will also level the technology landscape between SCM and neighboring school systems in the region.
- That SCM will continue to retain the ADM student count as of February 2016 (4,975) and add 100 new Out-of-District students each year between 2016 – 2017 and 2023 – 2024.
- That $100,000 to $200,000 of new student Out-of-District revenues will need to be dedicated to the School Board approved Technology Plan to be able to execute certain options, i.e. IPads vs. Chromebooks.
- That $4,000,000 to $5,000,000 must be transferred from the General Fund to the Rainy Day Fund between 2016 and 2023 to meet the Circuit Breaker tax cap loss and avoid the fiscal cliff.
- That student technology fees will be collected as outlined in the approved Technology Plan. That other revenue sources will be aggressively pursued, such as the Mishawaka Education Foundation, State and Federal grants, Foundations, corporate partners, etc.

EXPENDITURE EXPENSES ASSUMPTIONS

- That the four device and 21st Century classroom equipment options outlined in Appendix B represent the recommendation of the SCM Technology Task Force (TTF).
- That the TTF will remain active after the Operating Levy question is voted upon November 8, 2016.
- That in early 2017 the TTF will collaborate with SCM Senior Management and the SCM Technology Director to identify choices for student devices and 21st Century classroom tools.
- That professional staff development will be provided to SCM teaching and support staff throughout the life of the Technology Plan.
- That many of the network priorities will be included in the Capital Referendum, not in the Operating Levy Referendum.
- Procurement recommendations and decisions on Technology Plan purchases will be made by the TTF, The Technology Director, Senior Management, and the School Board during planning and execution of the purchasing process.

EXECUTIVE SUMMARY

We are committed to transforming education so that all children in the School City of Mishawaka (SCM) experience great learning. We envision a learning-centered system in which all children thrive in a personalized learning environment. The robust introduction of instructional and informational technologies in this Plan facilitates the School City of Mishawaka moving away from the teacher-centric to the learner-centric approach for instructional delivery. It is a paradigm shift from the industrial age to the networked age. Learners are connected in a network of stable and supportive relationships with adults and are encouraged to learn through self-directed discovery, with their peers and with the guidance of adults.

We live in a time of rapid innovation and entrepreneurship. We know more about how children and adults learn and what the elements of effective instruction look like. We also know more about how the human brain works. Advances in technology are facilitating learning in ways never before imagined. In SCM we are striving to offer personalized learning that is competency-based and has a wide range of learning environments and adult roles. In 2017, SCM will begin an initiative to paint a "portrait" of a 2017 MHS graduate. We will also continue to provide opportunities to make our students college, career, and citizenship ready.

Much of the student hardware and software technology in the School City of Mishawaka is antiquated and obsolete. Funds to purchase technology have been negatively impacted by SCM's low assessed valuation and caps on SCM tax funds (Capital Projects and Debt Service) since 2008. Technology purchases since 2008 in SCM do not represent a level playing field between Title I and non-Title I schools (Hums and Twin Branch) Elementaries. Title I elementary schools have received substantially more computer hardware and software and teacher 21st Century classroom tools than non-Title I schools.

Since tax funds are extremely limited to non-existent, the best alternative to provide up-to-date hardware and software for SCM students is to work with the Mishawaka Community to pass an Operating Levy on November 8, 2016 that will generate one million eight hundred thousand dollars ($1,800,000) on an annual basis from calendar year 2017 through 2023. The ballot question could be:

> *For the seven calendar years immediately following the holding of the referendum, shall the School City of Mishawaka impose a property tax rate increase that does not exceed $0.2434 cents on each hundred dollars of assessed value and generates $1.8 million dollars a year for seven years? This is in addition to all other property taxes imposed by the school corporation for the purpose of funding new technology hardware and software for students and teachers, implementing new educational programs that engage students, as well as adjusting class sizes and increasing employee compensation.*

To prepare for the infusion of funds to purchase hardware and software for SCM students and 21st Century digital tools for teachers, a 38 member Technology Task Force consisting of teacher, administrator, and community representatives met between September 10, 2015 and April 11, 2016. The committee members dedicated nine (9) sessions to discussing how student learning could be enhanced in SCM with technology. In addition to a focus on student-centered blended learning outcomes, it was also discovered that enhancements to SCM teaching, communication with stakeholders, and safety/security could also be achieved with improvements to SCM's technology.

A blended learning approach will provide students with opportunities to learn in ways SCM simply cannot currently provide. One such example is the unique opportunity to provide our students with Project Based Learning (PBL). Project based learning typically requires students to work in teams to accomplish a set task, or project. Though project based learning is not solely dependent on technology, technology provides a vehicle that makes collaborating with teammates much more efficient and effective. Just as many working adults are able to complete work at home utilizing a device, SCM students would be better able to collaborate with each other at times that are convenient, utilizing the same technology tools.

It will be necessary for SCM to employ effective communication and collaboration strategies between teachers, students, administrators, and parents to achieve success. The advent of online and virtual collaboration technologies presents a multitude of options to stay connected. Some SCM stakeholders are currently using digital media and environments to communicate and work in collaboration. In the future, those collaborations will be magnified exponentially. Connecting school, home, and community will be an important component of building a connected learning community in Mishawaka. To accomplish this task, SCM will develop and encourage the use of technological tools such as email, web pages, and social networking pages to share and collaborate on different activities in the school community.

The success of a properly instituted technology plan is not measured solely on technology devices alone. Ultimately, the measure of technology integration in the classroom utilizing a student-centered blended learning approach will be measured based on the mastery of student learning implementation throughout the school corporation. Implementing a student-centered blended learning model begins before the students arrive on campus with a well-thought out implementation and professional development plan. SCM will provide teachers with a variety of applications to prepare and plan for the school day. Applications to be provided will include, but not be limited to:

School City of Mishawaka is looking forward to utilizing technology as a primary driver for systemic school improvement, including a renewed focus on professional development of our staff. Just as we prioritize success in reading and math, we place a premium on technology experts who can help the entire school maximize its resources and opportunities. In order to support our professional staff, we must provide opportunities for on-going professional development, implementation of data-driven decision-making, personalized learning, and increased parental / community involvement.

This Technology Plan supports the School City of Mishawaka's Vision, Mission, and student achievement goals that provide a concentrated focus on student achievement and accountability.

Preparing students for a world rich in technology, with the appropriate skills and knowledge, requires the use of a variety of software and hardware. This includes 1:1 devices, the internet, digital content and resources, and web-based applications to support educational curriculum and innovative instructional programs. In addition, teachers, students, parents, administrators, and support staff increasingly expect to have access to these resources 24 hours a day, 7 days a week.

TECHNOLOGY PLAN ELEMENTS

STUDENT-CENTERED BLENDED LEARNING APPROACH

School City of Mishawaka (SCM) is committed to ensuring that all students are equipped with the knowledge and skills necessary to achieve success in the 21st Century. Preparing for the 21st Century does not mean that all traditional learning practices are left behind. In fact, true blended learning utilizes both traditional and digital learning methodologies to effectively teach students. No two students learn in the same way, therefore, SCM has to be sure to provide our students with a variety of approaches to learning.

A blended learning approach will provide students with opportunities to learn in ways SCM simply cannot currently provide. One such example is the unique opportunity to provide our students with Project Based Learning (PBL). Project based learning typically requires students to work in teams to accomplish a set task, or project. Though project based learning is not solely dependent on technology, technology provides a vehicle that makes collaborating with teammates much more efficient and effective. Just as many working adults are able to complete work at home utilizing a device, SCM students would be better able to collaborate with each other at times that are convenient, utilizing the same technology tools.

Embedding digital technology into the educational process is known as e-learning. E-learning is certainly a component of blended learning, but is a commonly thought of as an alternative to learning in the classroom. E-learning is simply utilizing digital technology to deliver instruction. The personalized relationship that is often coveted between teacher and student can actually be fostered and strengthened utilizing technology and E-learning. Imagine the potential of being able to design and deliver personalized instruction for each individual student. Imagine the potential benefits of a student being able to watch the instruction of the teacher multiple times to "get what they missed." All of these are basic benefits to utilizing E-learning and the Student-centered blended learning approach.

Many Indiana school corporations utilize the phrase "E-learning" when school is not in session, yet educational content can still be delivered to the students. While several surrounding districts have the option to provide E-learning days during severe weather events; SCM has been unable to exercise this option. Additionally, if professional development of our staff were to take a weekly approach as adopted by some school corporations, E-learning is the vehicle that helps fulfill the daily requirements for the students. While it may appear on the surface that school is dismissed early, the students can still be provided with instruction that can be utilized beyond the confines of dismissal. Therefore, for purposes of this plan, we will focus on the following two components:

- Utilizing technology to enhance student learning
- Delivering this content to students "where they are," even if they happen to be at home for a cancelled day of school.

Ultimately, SCM students will effectively apply digital tools to gather, evaluate, and use information that is considered essential for success at all grade levels and content areas. By effectively engaging learning through blended learning, teachers can demonstrate the relevance of 21st Century

education, keeping more students engaged as they pursue a rigorous K-12 education. More importantly, implementing a student-centered blended learning approach will ultimately prepare our students with the skillsets necessary to be College, Career, or Citizenship Ready upon graduation.

INSTRUCTIONAL TECHNOLOGY AND CURRICULUM INTEGRATION

It will be necessary for SCM to employ effective communication and collaboration strategies between teachers, students, administrators, and parents to achieve success. The advent of online and virtual collaboration technologies presents a multitude of options to stay connected. Some SCM stakeholders are currently using digital media and environments to communicate and work in collaboration. In the future, those collaborations will be magnified exponentially. Connecting school, home, and community will be an important component of building a connected learning community in Mishawaka. To accomplish this task, SCM will develop and encourage the use of technological tools such as email, web pages, and social networking pages to share and collaborate on different activities in the school community. Implementing a variety of techniques will provide:

- Greater parent/family participation in the child's educational programming
- Online data access/storage for employees and students for anytime, anywhere learning
- Continuity and availability of professional development for staff
- Extended and connected learning communities of practice inside and outside of SCM

PROFESSIONAL DEVELOPMENT

No other variable influences learning as much as the teacher. School City of Mishawaka recognizes the fundamental need to provide equitable access to technology for all students and staff. In addition, SCM will promote the integration of student-centered blended learning by promoting the integration of technology as a digital resource embedded within the curriculum. Lastly, for student-centered blended learning to work, SCM aims to increase the number of educators effectively using technology. Several specific areas will be targeted through time, including:

- Curriculum, access to online textbooks with digitally-rich model lessons in core content areas
- Aligned curriculum (by content and grade level) and searchable digital resources
- Technical guidance and training on content and tools necessary to implement the curriculum
- Interactive online services, virtual learning, and e-learning
- Physical and interactive learning environments, software integration training, and online tutorials
- Interactive learning and collaboration through on-line discussion groups

The success or failure of a school corporation technology initiative is dependent on the proper implementation by the professional staff. The TTF identified the following ways in which Technology implementation would enhance SCM teaching:

- Enhanced Student Learning. Having the option to expose students to technology that they will utilize throughout their lives is the most important concept of the blended learning approach.
- Professional Development. Teachers will be able to participate in professional development activities during windows of time that are conducive to their schedule.
- Effectiveness. After the teacher has learned how to utilize technology (hardware and software) they will be more effective in their day to day use of technology tools to enhance student learning.
- Competitive Edge. If implemented with fidelity, the Technology Integration Plan has the potential to attract exceptional teachers to the school corporation.

School City of Mishawaka is looking forward to utilizing technology as a primary driver for systemic school improvement, including a renewed focus on professional development of SCM staff. Just as we prioritize success in reading and math, we place a premium on technology experts who can help the entire school maximize its resources and opportunities. In order to support our professional staff, we must provide opportunities for on-going professional development, implementation of data-driven decision-making, personalized learning, and increased parental / community involvement.

Currently, professional development training management information, functions, and delivery are typically face to face trainings at SCM or off-site. In the future, SCM would like to create a Professional Development Program using a variety of models such as virtual or online, lecture/demo, video on-demand, and video conferencing. Additionally, it is proposed that high-quality professional development be offered to all educational stakeholders to improve their mastery and integration of educational technology. This training will be "housed" at a central repository within the SCM website and would be available to all the certified staff in the school corporation.

SCM professional development will be targeted to enhance student-centered blended learning instruction leading to increased student achievement and performance. One immediate method SCM would utilize to target this professional development would be a pre-assessment of the staff members' skills. This optional pre-assessment would assist in linking the participants' pre-existing knowledge and skills with their individual professional growth goals. Then, the delivery of professional development will be offered in several modalities to achieve those goals. The modalities used to train the staff will mirror those we would expect to see for our students. The modalities would be blended and include: face-to-face modules, electronic interactive, electronic non-interactive, study group/learning community, action research, and independent study.

Monitoring and assessing our student growth is vital to SCM students' achievement. Likewise, metrics will need to be implemented that SCM can utilize to monitor staff growth. Initially, these metrics will simply be an account of which strategies are being utilized. Through time, SCM would like to be able to quantify student success with the professional development strategies utilized by staff. This data can be utilized to exhibit which strategies worked and which need further refinement. Content that the staff has mastered can be delivered in the following way(s):

- Structured mentor/coaching program
- Results from action research
- Collaborative planning related to training

- Creation of a product related to training
- Study group participation
- Electronic interactive
- Electronic non-interactive

The success of a properly instituted technology plan is not measured solely on technology devices alone. Ultimately, the measure of technology integration in the classroom utilizing a student-centered blended learning approach will be measured based on the mastery of student learning implementation throughout the school corporation. Implementing a student-centered blended learning model begins before the students arrive on campus with a well thought out implementation and professional development plan. SCM will provide teachers with a variety of applications to prepare and plan for the school day. Applications to be provided will include, but not be limited to:

- General classroom setup and software to engage students in lessons, to record lessons, prepare lessons in advance, share lessons with other teachers and students, and for use as a self-evaluation tool
- Software for digitally capturing, editing, and storing documents and images
- Lab management software for the purpose of monitoring and controlling of student computers by the teacher
- A digital repository of lesson plans (when possible), activities, multi-media, and resources for the purpose of planning and implementing engaging and effective classroom instruction
- An application for collecting and reporting of attendance in secondary schools
- An electronic grade book for calculation, storage, and reporting of grades in secondary schools
- An application for monitoring and reporting of progress towards meeting grade level standards in elementary schools
- A comprehensive online suite of productivity tools (word processor, e-mail, spreadsheets, presentation maker, form maker, etc.) that can be accessed anywhere and anytime for the purpose of creating effective lesson plans, assignments, and assessments
- Assessment software where teachers can create tests, quizzes, and surveys which can be disseminated to students via LAN, Internet, and wireless-based technologies

Many of SCM's Title I classrooms are already on the cusp of 21st Century instruction. They have been outfitted as complete multimedia classrooms including ceiling mounted digital projector, document camera, projector screen, DVD/VCR with tuner, multimedia cabinet and a modern computer. Therefore, the costs of adapting many of these existing classrooms to the general classroom setup will be minimal. Ultimately, over the 5 year course of the Technology Implementation Plan, all SCM classrooms will be interactive multimedia classrooms. In order to deliver engaging digital content for whole group, small group, and individual learning, the following enhancements will be made to the interactive classroom:

- Increase mobile interactive wireless devices for teachers and students
- Implement high-definition audio-visual capabilities in the classroom
- Migration from a projector to an interactive HD television in each classroom

STRATEGIC BUDGETING TO MEET INSTRUCTIONAL TECHNOLOGY, SUPPORT PROFESSIONAL DEVELOPMENT, AND INTEGRATION NEEDS FOR 2017 – 2023

Staff Professional Support & Learning / Training	2017	2018	2019	2020	2021	2022	2023
Tech Coaches Stipend	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Curriculum Integration Specialist	82,500	84,560	86,670	88,840	91,060	93,340	95,670
Training - e-learning, LMS Software *2 Staff Training Days Yearly 2020*	-	-	-	138,380	141,840	145,390	149,020
Staff development *Online, Afterschool, Summer Stipends*	54,000	64,000	64,000	64,000	64,000	64,000	64,000
Certification – High School and Middle School *Tech Repair Class*	10,000			10,000			
ANNUAL TOTAL	**$ 156,500**	**$ 158,560**	**$ 160,670**	**$ 301,220**	**$ 306,900**	**$ 312,730**	**$ 318,690**

TECHNOLOGY CERTIFICATIONS

Technology certifications for staff members will be an essential professional development tool to promote the use of technology integration in SCM. Staff must feel comfortable and competent with technology if SCM expects the student-centered blended learning approach to be successful. Though certifications can certainly include teachers, most of their professional development has already been covered. However, the SCM technology staff will also need updated certifications through time. Though each of the specific roles vary between individuals in the technology department, it is expected that the following certifications will be necessary to keep the SCM technology staff current:

- A+ Certification
- Google Support / Google Admin Certification
- Microsoft Support / Server Certification
- Security+, Firewall Support
- Ethical Hacking Certification
- VMware Certification
- Phone System Support
- Education Technology Conferences (HECC, COSN, etc.)

TECHNOLOGY REPAIRS FOR CLASSROOMS / STUDENTS AT MHS/JYMS

Any school corporation that provides technology at a robust level will have technology troubleshooting that includes fixing select items. In fact, this actually creates an excellent learning opportunity for our students. If we are indeed preparing SCM students for life outside of school utilizing technology, then we will need to prepare a segment of this student population to be coherent with technology repairs.

The model that SCM is most interested in pursuing involves a certified computer technician that teaches students the basics of technology repair, including an emphasis on customer service. The teacher would teach a number of computer classes each day, while also overseeing the "helpdesk" at their location. The helpdesk staffed by students would potentially help students and teachers throughout the day, and may lead to internships at other SCM schools.

STRATEGIC TECHNOLOGY PRIORITIES AS RECOMMENDED BY THE COMMUNITY COLLABORATING COMMITTEE (CCC)

In ranking SCM's identified instructional needs, the following strategies emerged as the committee's top four recommended priorities (listed in order of priority).

1. Technology Expansion and Upgrades for Student and Staff Access to Support Digital / Blended Learning
2. Expansion of Wireless Infrastructure (Density) in all Schools, including Broadband capacities for initial and future growth
3. Digital Classrooms for 21st Century Learning
4. John Young Middle School needs to be supported to enhance learning to match academic achievement at the Elementary Schools and High School

Technology Strategies (1-3). Information technology has become a deeply embedded and essential feature of modern life, the way we do business, the way we access information, and the way we communicate with each other. It has transformed our world perhaps even more fundamentally than the electric light and the automobile. It has accomplished this revolution within just a few decades because it is the quintessential "force multiplier" for almost any task, including education. Due to its flexibility, it can increase instructional capacity and effectiveness in any class at any grade level. Therefore, we consider it an essential tool that must be embraced and broadly employed throughout the system from kindergarten through high school.

TECHNOLOGY TASK FORCE RECOMMENDATIONS AND STRATEGIES

Recommendation: *It is the recommendation of the Technology Task Force that School City of Mishawaka adopt the following strategies and timelines for technology implementation to improve and enhance student learning in SCM schools.*

Strategies: *These ten strategies generally outline the areas of immediate need in SCM (not necessarily in cardinal order of priority).*

1. Each SCM owned school building should have the capability and capacity for teachers to utilize technologies, tools, and computer data (internet) to enhance learning in the classroom.
2. Each SCM owned school building should have wireless access points with sufficient bandwidth capable of supporting all student devices in each classroom.
3. Each SCM owned school building should have a general classroom technology set-up including a landline telephone, teacher computer, interactive projector / television, and a document camera to help enhance instruction from the classroom teacher.
    a. Specialized classes (such as those taught at Mishawaka High School and John Young Middle School) will need specialized hardware and software and specialized physical configuration above and beyond the general classroom setup. In addition, building libraries need updated software support and computers.
4. Each SCM teacher should be provided with ample professional development and resources on how to effectively utilize the technology assets in their classroom(s). Professional Development should be incentivized to improve teacher utilization of technology.
5. SCM should investigate Learning Management Systems and obtain one that is compatible with the Student Management System (open software architecture).
6. Prior to student device deployment, SCM should investigate and define the following strategies:
    a. Potential partners and alternative funding strategies for devices, software, personnel, training, and potential use of the Metronet Zing Service.
    b. Utilization of digital textbooks and other digital curriculum resources.
    c. SCM acceptable use policy and licensing domains installed for students and staff.
    d. Device maintenance costs, costs of upgrades, and timelines to refresh the devices.
7. Upon completion of teacher professional development, SCM should deploy student devices in the following order:
    a. Mishawaka High School
    b. John Young Middle School
    c. Intermediate Elementary (grades 3-6)
    d. Primary Elementary (grades K-2)
8. Surveillance camera system upgrades at MHS and JYMS need immediate attention.
9. Landline telephone system needs an immediate upgrade throughout the school corporation.
10. Technology Department personnel growth should match the proposed needs of the school corporation.

STRATEGIC PRIORITY TECHNOLOGY INVESTMENTS BY CALENDAR YEAR

2017 – 2018 Academic Year

Student devices will be deployed for grade 7 at JYMS and grade 9 at MHS. (Estimated 385 students per grade level.)
2 Pilot Cart sets of 30 Chromebooks for Grades 3-6 at Twin Branch and Hums.[1]
2 Pilot Cart sets of 30 iPad Air 2 for grades K-2 at Twin Branch and Hums.[1]
A substantial portion of the corporate and building level salaries and benefits are included.
2 technology coaches will be paid a stipend[2] at JYMS and MHS to assist in implementing technology with the staff ($10,000 total).
Technology trainings and certifications will be initiated for the SCM technology department staff over the 7 years ($20,000 total).
A Curriculum Integration Specialist will assist in incorporating curriculum and blended learning strategies with students – starting in 2017.
SCM Staff development and trainings both online and after school (Allocated Stipend Total $54,000).[2]
Technology Staff Certification for JYMS and MHS Technology Repair Class ($5,000 each building or $10,000 total).

2018 – 2019 Academic Year

Student devices will be deployed for grade 8 at JYMS* and grade 10 at MHS. (Estimated 385 students per grade level.)
1 Pilot Cart sets of 30 Chromebooks for Grades 3-6 at Battell, Beiger, Emmons, LaSalle, and Liberty[3]
1 Pilot Cart sets of 30 iPad Air 2 for grades K-2 at Battell, Beiger, Emmons, LaSalle, and Liberty[3]

**This would complete JYMS as the first SCM school to go 1:1.*

A substantial portion of the corporate and building level salaries and benefits are included.
2 technology coaches will be paid a stipend* at JYMS and MHS to assist in implementing technology with the staff ($10,000 total).
Technology trainings and certifications will be initiated for the SCM technology department staff over the 7 years ($20,000 total).
The Curriculum Integration Specialist employed in 2017-2018 will assist in incorporating curriculum and blended learning strategies with students.
SCM Staff development and trainings both online and after school (Allocated Stipend Total $54,000).[2]

[1]*Twin Branch and Hums are receiving technology in the first phase in an effort to make technology "equitable" throughout the district.*
[2]*The stipend amount will be negotiated with the MEA.*
[3]*The 5 elementary schools cited are only receiving 1 cart of each device as they are Title I schools that have been able to purchase technology in the past.*

2019 – 2020 Academic Year

Student devices deployed for grade 6 and grades 11 and 12 at MHS.*[1] (Estimated 385 students per grade level.)

This would complete MHS as the second SCM school to go 1:1.

A substantial portion of the corporate and building level salaries and benefits are included.
2 technology coaches will be paid a stipend[2] at JYMS and MHS to assist in implementing technology with the staff ($10,000 total).
Technology trainings and certifications will be initiated for the SCM technology department staff.
The Curriculum Integration Specialist employed in 2017-2018 will assist in incorporating curriculum and blended learning strategies with students.
SCM Staff development and trainings both online and after school (Allocated Stipend Total $54,000). [2]

2020 – 2021 Academic Year

Student devices deployed for grades 3, 4, and 5. (Estimated 385 students per grade level.)
A substantial portion of the corporate and building level salaries and benefits are included.
2 technology coaches will be paid a stipend[2] at JYMS and MHS to assist in implementing technology with the staff ($10,000 total).
Technology trainings and certifications will be initiated for the SCM technology department staff.
The Curriculum Integration Specialist employed in 2017-2018 will assist in incorporating curriculum and blended learning strategies with students.
SCM Staff development and trainings both online and after school (Allocated Stipend Total $54,000). [2]
Staff Certification for JYMS and MHS Technology Repair Class ($5,000 each building or $10,000 total).
All SCM staff training (2 full days) for E-learning, LMS training, and Blended Learning Curriculum Alignment ($138,380 total). [2]

2021 – 2022 Academic Year

Student devices deployed for grades K, 1, and 2.* (Estimated 385 students per grade level.)

This would complete all elementary buildings and all SCM schools will have full 1:1 implementation.

A substantial portion of the corporate and building level salaries and benefits are included.
2 technology coaches will be paid a stipend[2] at JYMS and MHS to assist in implementing technology with the staff ($10,000 total).
Technology trainings and certifications will be initiated for the SCM technology department staff.
The Curriculum Integration Specialist employed in 2017-2018 will assist in incorporating curriculum and blended learning strategies with students.
SCM Staff development and trainings both online and after school (Allocated Stipend Total $54,000).[2]
All SCM staff training (2 full days) for E-learning, LMS training, and Blended Learning Curriculum Alignment ($141,840 total). [2]

[1]*The 5 elementary schools cited are only receiving 1 cart of each device as they are Title I schools that have been able to purchase technology in the past.*
[2]*The stipend amount will be negotiated with the MEA.*

2022 – 2023 Academic Year

Student devices refreshed for grade 7 at JYMS and grade 9 at MHS. (Estimated 385 students per grade level.)
A substantial portion of the corporate and building level salaries and benefits are included.
2 technology coaches will be paid a stipend[1] at JYMS and MHS to assist in implementing technology with the staff ($10,000 total).
Technology trainings and certifications will be initiated for the SCM technology department staff.
The Curriculum Integration Specialist employed in 2017-208 will assist in incorporating curriculum and blended learning strategies with students.
SCM Staff development and trainings both online and after school (Allocated Stipend Total $54,000). [1]
All SCM staff training (2 full days) for E-learning, LMS training, and Blended Learning Curriculum Alignment ($145,390 total). [1]

2023 – 2024 Academic Year

Student devices refreshed for grade 8 at JYMS and grade 10 at MHS. (Estimated 385 students per grade level.)
A substantial portion of the corporate and building level salaries and benefits are included.
2 technology coaches will be paid a stipend[1] at JYMS and MHS to assist in implementing technology with the staff ($10,000 total).
Technology trainings and certifications will be initiated for the SCM technology department staff.
The Curriculum Integration Specialist employed in 2017-2018 will assist in incorporating curriculum and blended learning strategies with students.
SCM Staff development and trainings both online and after school (Allocated Stipend Total $54,000). [1]
All SCM staff training (2 full days) for E-learning, LMS training, and Blended Learning Curriculum Alignment ($149,020 total) [1]

[1]*The stipend amount will be negotiated with the MEA.*

ANNUAL TECHNOLOGY HARDWARE INVESTMENTS FOR STUDENTS

Option 1: iPad Air 2

Technology Hardware	2017	2018	2019	2020	2021	2022	2023
Classroom Hardware - iPad Air 2 (Device, keyboard/case, $30 insurance)							
Purchase Option 1:							
Grades 7 and 9	$ 408,100					$ 408,100	
Grades 8 and 10		$ 408,100					$ 408,100
Grades 11, 12, and 6			$ 612,150				
Grades 3, 4, and 5				$ 612,150			
Grades K, 1, and 2					$ 575,000		
* Pilot Cart set of 30 Chromebooks – Grades 3-6 *2 at Twin Branch and 2 at Hums*	45,600						
* Pilot Cart set of 30 iPad Air 2 – Grades K-2 *2 at Twin Branch and 2 at Hums*	64,200						
* Pilot Cart set of 30 Chromebooks – Grades 3-6 *1 each for remaining elementary schools*		57,000					
* Pilot Cart set of 30 iPad Air 2 – Grades K-2 *1 each for remaining elementary schools*		80,250					
ANNUAL TOTAL	**$ 517,900**	**$ 545,350**	**$ 612,150**	**$ 612,150**	**$ 575,000**	**$ 408,100**	**$ 408,100**

Option 2: Chromebook

Technology Hardware	2017	2018	2019	2020	2021	2022	2023
Classroom Hardware – Chromebook (2015 Dell 11 Chromebook, case, $30 insurance)							
Purchase Option 2:							
Grades 7 and 9	$ 265,650					$ 265,650	
Grades 8 and 10		$ 265,650					$ 265,650
Grades 11, 12, and 6			$ 398,475				
Grades 3, 4, and 5				$ 398,475			
Grades K, 1, and 2					$ 396,750		
* Pilot Cart set of 30 Chromebooks – Grades 3-6 *2 at Twin Branch and 2 at Hums*	45,600						
* Pilot Cart set of 30 iPad Air 2 – Grades K-2 *2 at Twin Branch and 2 at Hums*	64,200						
* Pilot Cart set of 30 Chromebooks – Grades 3-6 *1 each for remaining elementary schools*		57,000					
* Pilot Cart set of 30 Grade K-2 iPad Air 2 – Grades K-2 *1 each for remaining elementary schools*		80,250					
ANNUAL TOTAL	**$ 375,450**	**$ 402,900**	**$ 398,475**	**$ 398,475**	**$ 396,750**	**$ 265,650**	**$ 265,650**

DIGITAL CLASSROOMS FOR 21ST CENTURY LEARNERS

Option 1: Projector, Computer, Document Camera, Presentation Receiver, and Whiteboard

Classroom Presentation Hardware *Option 1*	2017	2018	2019	2020	2021	2022	2023
Projector, Computer, Document Camera, Presentation Receiver, Whiteboard							
Number of Classrooms	20	20	20	20	25	25	25
Installed Projector Cost Per Classroom: $6,500							
Elementary	$ 130,000	$ 130,000	$ 130,000	$ 130,000	$ 162,500	$ 162,500	$ 162,500
JYMS, MHS, and Campus *(25 per year)*		162,500	162,500	162,500	162,500	162,500	162,500
Video Encoder - Broadcast throughout each building		10,000	10,000	10,000	10,000	10,000	10,000
ANNUAL TOTAL PROJECTOR	**$ 130,000**	**$ 302,500**	**$ 302,500**	**$ 302,500**	**$ 335,000**	**$ 335,000**	**$ 335,000**

Option 2: Interactive TV, Document Camera, Presentation Receiver, and Computer

Classroom Presentation Hardware *Option 2*	2017	2018	2019	2020	2021	2022	2023
Interactive TV (installation cost*), Document camera, Presentation Receiver, Computer							
Number of Classrooms	20	20	20	20	25	25	25
Installed Interactive TV Cost Per Classroom: $10,000							
Elementary *(20 each year for first 4 years; 25 each year for final 3 years)*	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 250,000	$ 250,000	$ 250,000
JYMS, MHS, and Campus *(25 per year)*		250,000	250,000	250,000	250,000	250,000	250,000
Video Encoder - Broadcast Throughout Each Building		10,000	10,000	10,000	10,000	10,000	10,000
ANNUAL TOTAL INTERACTIVE TV	**$ 200,000**	**$ 460,000**	**$ 460,000**	**$ 460,000**	**$ 510,000**	**$ 510,000**	**$ 510,000**

TECHNOLOGY AND NETWORK INFRASTRUCTURE PRIORITIES

(Some of These Costs will be Forwarded to the Capital Referendum)

Statement on Wide-Area Network Fees and Capacity Building

Communication and collaboration strategies are essential to incorporate building, school corporation, and internet infrastructure. To this point School City of Mishawaka has embarked on a wireless networking update project in August of 2014 to be completed by September of 2016. This wireless networking project was made possible by the federal E-rate program along with contributions from the MEF and School City of Mishawaka. The total cost of the wireless infrastructure update is $709,250.64 The E-rate entity, USAC (Universal Service Administrative Company) covered 80% of that cost, or $567,400.50 The remaining amount of $141,850.14 is SCM's responsibility. It is anticipated that the Mishawaka Education Foundation (MEF) will assist with a $35,000 contribution, leaving SCM with a $106,000.00 financial responsibility.

This wireless update project will include wireless access points in every classroom, along with updated network switch electronics. Due to E-rate funding limitations Mishawaka High School was only able to update wireless access points in each classroom and common areas. It is the lone exception for updated networking electronics, and fiber backbone components. Currently the High School networking electronics have manufacture dates ranging from 2006-2010, and FDDI Grade MMF fiber backbone dated in the 1990's. With the expected lifetime of networking electronics of seven years and fiber backbone life expectancy of twenty years, Mishawaka High School has an opportunity at this time to plan for a robust network infrastructure. A seven year refresh cycle for network electronics and twenty year refresh cycle for the fiber backbone. The last infrastructure piece incorporates the WAN infrastructure providing the necessary path for internet access. Strategies to be explored include our current internet provider and a partnership with Saint Joe Valley MetroNet a local non-profit providing WAN infrastructure services.

Over the next three years, SCM will invest in the network backbone, create the foundation, and exceed the requirements for all current and future applications. Lastly, it is imperative to understand that the network infrastructure is an integral piece of the Technology Plan, but will be appropriated utilizing the Capital Referendum, as it is considered a long term infrastructure item. Currently SCM has a 5-year contract with Comcast to provide Internet and WAN services until July 1, 2020. SCM will begin to construct a new WAN backbone to support future phone services, and expanded network bandwidth needs starting at 10g speeds. To support this continued growth of technology the following timeline is recommended.

1. May 2016: MetroNet Grant Application for WAN Infrastructure Lateral builds
2. Fall 2016-Spring 2017 – MetroNet Lateral Builds
3. July 2016-Dec 2016 E-Rate Filing for Additional Internet BandWidth with July 1, 2017 effective date
4. July 2016-Dec 2016 E-Rate Filing for Select Buildings 10g Internal Lan Infrastructure effective Dec 2017
5. April 2017 – High School Network Infrastructure update, 10g Fiber backbone and switch electronics
6. June 2017 – SCM Data Center updates
7. Summer 2017 – New SCM Corporation Phone system

TECHNOLOGY PERSONNEL, SOFTWARE SYSTEMS, AND SERVICES

Statement on Technology Personnel

The TTF unanimously agreed the technology department should grow in parallel with technology offerings in the classroom. At this juncture, the specific number of staff was not determined beyond a Technology Director, Technology Operations Manager, Network Engineer, Security/Systems Engineer, Student Information Specialist, Desktop Support and a Curriculum Integration Specialist. However, the TTF did suggest that a technology / teacher liaison be added to assist teachers in the initial phases of implementing the student-centered blended learning initiative. This professional development piece may change through time, but with implementation beginning at JYMS and MHS, it will be imperative to focus on those programs first so that refinements can be made prior to the elementary school deployment.

Statement on Software Needs and Renewals

SCM's mission-critical operations are managed by various enterprise systems and custom applications. Many of these systems have been named in this document whereas others have a minimal impact and have not been mentioned. These systems, like Infinite Campus, Google Mail, and School Messenger all serve individual purposes, but ultimately need to be examined carefully to verify whether renewal or a more effective solution is the best course of action.

PROJECTED TECHNOLOGY PERSONNEL, SOFTWARE SYSTEMS, AND SERVICES COST

(Includes Corporation and School Based Personnel)

Technology Personnel	2017	2018	2019	2020	2021	2022	2023
Present Personnel Cost (includes benefits)	$ 620,000	$ 635,500	$ 651,400	$ 667,700	$ 684,400	$ 701,500	$ 719,000
New Technology Director (includes benefits)	110,000	112,800	115,600	118,500	121,500	124,500	127,600
Personnel Certification and Training	20,000	20,000	20,000	20,000	20,000	20,000	20,000
SUBTOTAL	**$ 750,000**	**$ 768,300**	**$ 787,000**	**$ 806,200**	**$ 825,900**	**$ 846,000**	**$ 866,600**

PROJECTED SOFTWARE AND HARDWARE INVESTMENTS FOR STUDENTS, STAFF, AND PARENTS

School corporation Technology Software and Classroom Management Software	2017	2018	2019	2020	2021	2022	2023
Mirroring - screen sharing software $12/student	$ 9,600	$ 9,600	$ 14,400	$ 14,400	$ 14,400	$ -	
Content - online, software	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000
Specialized classrooms:							
Project Based Learning and Innovative Classroom Hardware / Software	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000
SUBTOTAL	**$ 94,600**	**$ 94,600**	**$ 99,400**	**$ 99,400**	**$ 99,400**	**$ 85,000**	**$ 85,000**

STUDENT INFORMATION, LEARNING MANAGEMENT, LIBRARY MANAGEMENT, AND DATA SYSTEMS

Statement on Student Information System

The TTF recognizes that we currently utilize Infinite Campus as our student management product. Overall, Infinite Campus has served SCM well and has the potential to continue to serve the school corporation, but it will be imperative to keep an open mind when investigating a Learning Management System (LMS).

Infinite Campus is SCM's Student Information System (SIS). The SIS is a mission critical system that manages SCM's school-related data including students, teachers, classrooms, and courses. The SIS has several important functions. First, it is the student data warehouse that contains all the pertinent demographic information that is utilized for a variety of functions. Secondly, the SIS software creates the data and generates reports as mandated by the IDOE. SCM's annual funding from the IDOE is based on this data.

There are several great third party vendors that offer alternatives to SCM's Student Information System. What is difficult to ascertain at this juncture is whether or not a migration to a new vendor will result in improved efficiencies or student outcomes. Ultimately, the SIS must be compatible with the LMS (below) so that parents, students, and teachers can efficiently communicate through a single online portal.

Statement on Learning Management System

A Learning Management System (LMS) is imperative as this is the vehicle in which teachers and students can communicate. LMS's offer the ability to post assignments to classes, track student participation, grade student work, and provide feedback between the teacher and student. The TTF recommends that any acquired SMS / LMS software have open software architecture, making it the two software(s) compatible. Currently, there are

several popular LMS products on the marketplace, including Canvas and Schoology to name a few. Unfortunately, neither of these products are directly compatible with Infinite Campus, as Infinite Campus also has their own LMS that they prefer SCM purchase. Ultimately, the Infinite Campus LMS product may be one to consider, but the TTF wants an LMS and SMS that are compatible with one another.

**In addition to selecting an LMS and potential SMS, it is essential to note the importance of providing Professional Development to our teachers pertaining to how to best utilize these products.*

PROJECTED EXPENDITURES FOR STUDENT INFORMATION, LEARNING MANAGEMENT, LIBRARY, AND OTHER DATA

School Corporation Support Software / Library and LMS	2017	2018	2019	2020	2021	2022	2023
Library - Follett Update	$ 25,000	$ 25,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Security (firewall) $10/machine per year	$ 24,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000
Learning Management System (Schoology / Canvas) $5,500 annual, $4.50 /student	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000
TOTAL	**$ 79,000**	**$ 100,000**	**$ 85,000**	**$ 85,000**	**$ 85,000**	**$ 85,000**	**$ 85,000**

SECURITY, FACILITIES, AND BUSINESS TECHNOLOGIES AND SYSTEMS

Statement on Network, Device, and Data Security

(Capital Referendum Expenditure)

Technology hardware and software is an investment by the taxpayer of the school corporation. It is SCM's responsibility to protect this hardware / software in a manner similar to the physical property of the school corporation. SCM will pay special attention to intrusion prevention and detection from both internal and external unauthorized activity. The main focus areas are as follows:

- Physical security
- Network security
- Application security
- Wireless security
- Endpoint security
- Data security

SCM will also research and implement Acceptable Use Policy for both Employees and Students. It is anticipated that the new policies will be less restrictive, differentiated access policies that provide greater consistency and logic in how filtering is applied to all users. The access policy will be consistent with U.S. laws and School Board policies. The school corporation will continue to develop differentiated access policies that will allow greater access to teachers and staff, and increased access based on student age. In a world of 24/7 access and around the clock workplaces, SCM will continue to face increased demands for online storage access to files by students, teachers, and staff.

SCM will have to be vigilant in exploring reduced cost solutions to meet these storage needs through off-site (cloud) storage solutions and the use of content management systems that are tied to student and staff user accounts. Lastly, it is imperative to understand that the network infrastructure is an integral piece of the technology plan, but will be appropriated utilizing the Capital Referendum, as it is considered a long term infrastructure item.

Statement on Facility Security

(Capital Referendum Expenditure)

The security camera system at JYMS and MHS were certainly items identified by the TTF. In addition, the TTF also recommended similar systems be implemented at SCM's seven elementary sites in the coming years. In addition, hard wired telephone and the corresponding infrastructure were also areas identified that need immediate attention. All of these recommendations are under direct consideration, but will appropriated utilizing the Capital Referendum as they are considered long term infrastructure items.

APPENDIX A

PROJECTED STUDENT TECHNOLOGY FEES BY YEAR

Income	2017	2018	2019	2020	2021	2022	2023
Student Computer Fee - 33% of students	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125
High School	14,440	28,880	57,750	57,750	57,750	57,750	57,750
Middle School	33,000	33,000	33,000	33,000	33,000	33,000	33,000
Elementary		33,000	66,000	115,500	115,500	115,500	115,500
State textbook reimbursement - 67% of students	$ 50	$ 50	$ 50	$ 50	$ 50	$ 50	$ 50
High School	11,730	23,450	46,900	46,900	46,900	46,900	46,900
Middle School	26,800	26,800	26,800	26,800	26,800	26,800	26,800
Elementary		26,800	53,600	93,800	93,800	93,800	93,800
TOTAL INCOME	**$ 85,970**	**$ 171,930**	**$ 284,050**	**$ 373,750**	**$ 373,750**	**$ 373,750**	**$ 373,750**

APPENDIX B

MASTER SCHEDULE OF PROJECTED TECHNOLOGY REVENUES AND EXPENDITURES FOR SCM BETWEEN 2017 – 2023

(Based on 4 Options)

Option 1: Chromebook / Television

Summary Section: Chromebook / Television	2017	2018	2019	2020	2021	2022	2023
Tax Levy	$ 1,800,000	$ 1,800,001	$ 1,800,002	$ 1,800,003	$ 1,800,004	$ 1,800,005	$ 1,800,006
Student Fees	85,970	171,930	284,050	373,750	373,750	373,750	373,750
Total Income	1,885,970	1,971,931	2,084,052	2,173,753	2,173,754	2,173,755	2,173,756
OPTION 1:							
General Fund Technology Salaries and Benefits	$ 625,420	$ 400,871	$ 530,307	$ 479,458	$ 465,504	$ 590,775	$ 584,816
Education Program Updates, Adjust Class Size, Employee Compensation	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Staff Professional Support and Learning/Training	156,500	158,560	160,670	301,220	306,900	312,730	318,690
Classroom Hardware *(2015 Dell 11 Chromebook, case, $60 insurance)*	375,450	402,900	398,475	398,475	396,750	265,650	265,650
Interactive TV (Installation Cost*), Document Camera, Presentation Receiver, Computer	200,000	460,000	460,000	460,000	510,000	510,000	510,000
Learning Management System (LMS)	30,000	30,000	30,000	30,000	30,000	30,000	30,000
WAN Monthly Fees and Internet Capacity Upgrade	49,600	49,600	49,600	49,600	9,600	9,600	9,600
District Support Software *(Library: Follett-Update, Devise Firewall)*	49,000	70,000	55,000	55,000	55,000	55,000	55,000

Option 2: Chromebook / Projector

Summary Section: Chromebook / Projector	2017	2018	2019	2020	2021	2022	2023
Tax Levy	$ 1,800,000	$ 1,800,001	$ 1,800,002	$ 1,800,003	$ 1,800,004	$ 1,800,005	$ 1,800,006
Student Fees	85,970	171,930	284,050	373,750	373,750	373,750	373,750
Total Income	1,885,970	1,971,931	2,084,052	2,173,753	2,173,754	2,173,755	2,173,756
OPTION 2:							
General Fund Technology Salaries and Benefits	$ 757,920	$ 632,931	$ 764,477	$ 705,798	$ 721,564	$ 849,115	$ 845,486
Education Program Updates, Adjust Class Size, Employee Compensation	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Subtotal Stipend, Online Staff Development, E-learning	94,000	84,000	84,000	232,380	225,840	229,390	233,020
Classroom Hardware *(2015 Dell 11 Chromebook, case, $60 insurance)*	375,450	402,900	398,475	398,475	396,750	265,650	265,650
Projector, Computer, Document Camera, Presentation Receiver, Whiteboard	130,000	302,500	302,500	302,500	335,000	335,000	335,000
Learning Management System (LMS)	30,000	30,000	30,000	30,000	30,000	30,000	30,000
WAN Monthly Fees and Internet Capacity Upgrade	49,600	49,600	49,600	49,600	9,600	9,600	9,600
District Support Software *(Library: Follett-Update, Devise Firewall)*	49,000	70,000	55,000	55,000	55,000	55,000	55,000

Option 3: iPad / Projector

Summary Section: iPad / Projector	2017	2018	2019	2020	2021	2022	2023
Tax Levy	$ 1,800,000	$ 1,800,001	$ 1,800,002	$ 1,800,003	$ 1,800,004	$ 1,800,005	$ 1,800,006
Student Fees	85,970	171,930	284,050	373,750	373,750	373,750	373,750
Total Income	1,885,970	1,971,931	2,084,052	2,173,753	2,173,754	2,173,755	2,173,756
OPTION 3:							
General Fund Technology Salaries and Benefits	$ 615,470	$ 490,481	$ 550,802	$ 492,123	$ 543,314	$ 706,665	$ 703,036
Education Program Updates, Adjust Class Size, Employee Compensation	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Subtotal Stipend, Online Staff Development, E-learning	94,000	84,000	84,000	232,380	225,840	229,390	233,020
Classroom Hardware *(iPad Air 2: Device, keyboard/case, $60 insurance)*	517,900	545,350	612,150	612,150	575,000	408,100	408,100
Projector, Computer, Document Camera, Presentation Receiver, Whiteboard	130,000	302,500	302,500	302,500	335,000	335,000	335,000
Learning Management System (LMS)	30,000	30,000	30,000	30,000	30,000	30,000	30,000
WAN Monthly Fees and Internet Capacity Upgrade	49,600	49,600	49,600	49,600	9,600	9,600	9,600
District Support Software *(Library: Follett-Update, Devise Firewall)*	49,000	70,000	55,000	55,000	55,000	55,000	55,000

Option 4: iPad / Television

Summary Section: iPad / Television	2017	2018	2019	2020	2021	2022	2023
Tax Levy	$ 1,800,000	$ 1,800,001	$ 1,800,002	$ 1,800,003	$ 1,800,004	$ 1,800,005	$ 1,800,006
Student Fees	85,970	171,930	284,050	373,750	373,750	373,750	373,750
Total Income	1,885,970	1,971,931	2,084,052	2,173,753	2,173,754	2,173,755	2,173,756
OPTION 4:							
General Fund Technology Salaries and Benefits	$ 482,970	$ 258,421	$ 316,632	$ 265,783	$ 287,254	$ 448,325	$ 442,366
Education Program Updates, Adjust Class Size, Employee Compensation	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Staff Professional Support and Learning/Training	156,500	158,560	160,670	301,220	306,900	312,730	318,690
Classroom Hardware *(iPad Air 2: Device, keyboard/case, $60 insurance)*	517,900	545,350	612,150	612,150	575,000	408,100	408,100
Interactive TV (Installation Cost*), Document Camera, Presentation Receiver, Computer	200,000	460,000	460,000	460,000	510,000	510,000	510,000
Learning Management System (LMS)	30,000	30,000	30,000	30,000	30,000	30,000	30,000
WAN Monthly Fees and Internet Capacity Upgrade	49,600	49,600	49,600	49,600	9,600	9,600	9,600
District Support Software *(Library: Follett-Update, Devise Firewall)*	49,000	70,000	55,000	55,000	55,000	55,000	55,000

Vision for Educational Technology

The vision for the School City of Mishawaka Technology Plan is to create a technology-rich teaching and learning environment that transforms education for students.

School City of Mishawaka

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