Belding Area Schools

TECHNOLOGY PLAN

2010 - 2013

SECTION 1 – COVER PAGE

District:	Belding Area Schools	1975 Orchard Street Belding, Michigan 48809
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	District Code	34080
Start Date:		July 1, 2010
End Date:		June 30, 2013
Contact:	Raymond K. Meyer	Director of Technology
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ISD:	Ionia Intermediate School District	
	ID #	34000

URL for Technology Plan:

http://www.bas-k12.org/uploads/documents/forms/BAStechplan09-12.pdf

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SECTION 2 – INTRODUCTION

Mission Statement

Belding Area Schools will provide educational opportunities that inspire all students to achieve productive, ethical, and responsible citizenship.

District/School Statistics

The population of Ionia County is 61,518. This includes 22,006 households having an average household income of $43,074. The median age of the population is 32.9 years old. The population is primarily white (91.96%) with 4.56% of individuals of African American descent, .56% of American Indian descent, .32% of Asian descent, .01% Pacific Islander, 2.78% of individuals of Hispanic descent, 1.55% from two or more races, and 1.04% other descent. The top industries are agriculture, services, manufacturing, retail trade, government, and construction. Eight percent of the population complete four or more years of college, 32.3% complete one to three years of college, 40.4% only complete high school, and 19.3% do not finish high school.

Belding is located in West Michigan along state highways M-44 and M-91, 25 miles northeast of Grand Rapids in the northwest corner of Ionia County. Belding has a population of 13,186 with businesses ranging from retail shops to manufacturing and extrusion firms. Hiking, horseback riding, fishing, camping, cross country skiing, golfing, jogging, and mountain biking are among the many recreational activities available in Belding and surrounding Ionia County. Belding is located less than an hour drive from the State Capital and Michigan State University. It is nestled in the very heart of Michigan's farmland.

Belding Area Schools' proportion of students who receive free or reduced-plan lunch is approximately 53%.

Belding has approximately 2200 students and is in the Class B OK Blue Sports Conference. The district has one high school, one middle school, and two elementary schools. It operates a licensed pre-school, Michigan Great Start Readiness, and Early Childhood Special Education.

The district provides alternative programs which include a teenage parent program (TAPP) and Belding Alternative School of Education (BASE) for grades 9-12.

Buildings

Administrative Offices	1975 Orchard Street	616-794-4700
Belding Alternative School of Education	315 Washington Street	616-794-4646
Belding Community Education	315 Washington Street	616-794-4646
Belding High School	850 Hall Street	616-794-4900
Belding Middle School	410 Ionia Street	616-794-4400
Early Childhood Center	1975 Orchard Street	616-794-4713
Ellis Elementary	100 West Ellis Ave	616-794-4100
Technology Department	321 Wilson Street	616-794-4560
Transportation	460 East State Road	616-794-4970
Woodview Elementary	450 Orchard Street	616-794-4750

For a complete staff directory please go to: http://www.bas-k12.org/index.php/staff/

Technology Committee Members

The technology committee is a group of volunteers who meet monthly throughout the school year to discuss and plan the implementation of the technology plan. Current year plans are reviewed, adjusted if needed, and strategies for implementation are finalized. This committee also meets twice a year for the purpose of reviewing technology curriculum and implementation.

David Boes	IS Technician
Diane Hevel	Middle School Teacher
Ed Albert	High School Teacher/District Parent
Heidi Armock	Middle School Teacher
Jim Smith	Elementary School Teacher
Judy Brown	Elementary School Teacher
Leslie Mount	Assistant Superintendent/District Parent
Raymond Meyer	Director of Technology
Ryan Kelley	Network Engineer
Roz Patterson	Elementary School Teacher
Sally Carlson	Media Specialist/District Parent
Sandra Samsel	Technology Department Administrative Assistant
Tom Daller	High School Teacher/District Parent
Tom Humphreys	Board Member/District Parent
Roger Wills	High School Teacher/City Council Member

SECTION 3 – VISION and GOALS

District Vision Statement

Belding Area Schools and the Board of Education acknowledge that learning with and about technology, prepares our students and the community at large to live responsibly as lifelong learners in a technologically driven society. Learners need the ability and opportunity to use technology for knowledge and skill acquisition, communication, information management, problem solving, creative expression, research, and for product design and development.

Since Belding Area Schools strives for all individuals to become participating citizens in the ever-changing world, the district feels that it is essential to integrate technology into all aspects of a learner's education. Belding believes that learners become technologically capable when they apply technology across curricular areas and when technology is used throughout the learning process.

District Goals

Integrating emerging technologies to improve learning for all students is a goal of all building and district school improvement planning at Belding Area Schools. These goals are based on an assessment of teacher, student, and community needs. The district also sees that the future of education is going to be shaped by the necessity of expanding the walls of the classroom. This happens by making online learning opportunities available to all students and providing the technology for students to access those opportunities in the teaching moment.

Curriculum Goals

Through the use of the integrated technology curriculum, every student will attain the ability to use basic technology tools in everyday life.

Consequently, every instructor has the responsibility to assure that technological integration is a part of their student's educational experience and every administrator has the responsibility to make sure that instructors are following through on integrated curriculum delivery.

Professional Development Goals

Every staff person will have the opportunity for professional development, which enables staff to comfortably and effectively use appropriate technologies in the educational setting. Two of the goals of this plan, besides the current and ongoing goals, are to train staff in the usage of online course development software, and to provide technologically based professional development opportunities for administrators.

Consequently, administration will have to plan time for technological training which is pertinent to their needs and the needs of their staff.

Infrastructure, Hardware, Technical Support, and Software Goals

All hardware, software, video, audio, network, and internet systems will be maintained or replaced as necessary in order to keep the tools of technology available for use in the delivery of instruction and the administration of the district's business. This goal is essential for the students and staff to be able to carry out the integration of technology in the process of curriculum delivery.

Consequently, the district will have to plan for the replacement and upkeep of all hardware software and network systems including internet access.

Funding and Budget Goals

Although the district is committed to maintaining its funding for technology, it will evaluate opportunities for alternative funding sources through USF, grants, and collaborative planning/purchasing partnerships.

Consequently, the district will have to apply for available grants and look for cost effective purchasing power via consortiums.

Monitoring and Evaluation Goals

The District has and will continue to establish the yearly practice of evaluating the goals of this plan just like we do the integrated curriculum.

Consequently, the technology committee and the strategic planning committee will have to schedule a regular review of this plan to evaluate its effectiveness and recommend changes if need be.

District Outcomes

Students will be able to:

- Demonstrate skill in the use of computers, learning and information technologies, and their applications
    - By passing elective and encore classes in the technology curriculum
    - By passing technology competency testing
- Use technology to become independent learners
    - By using Moodle and Nova Net web based course offerings
    - By using the computer labs available during and after school
- Access information, exchange ideas and conduct research
    - By participating in class assignments which have the use of technology tools integrated
    - By using Moodle, our web based course program, to collaborate on classroom assignments
- Meet the K-12 technology literacy standards for the State of Michigan
    - By participating in all of the above

Staff will be able to:

- Use technology to manage time and tasks related to instructional planning and reporting
    - By using the integrated student database system
    - By using Moodle to store course work and curriculum for access from anywhere
- Enhance student learning by integrating instructional strategies that use technology for instruction and productivity
    - By teaching the usage of current applications like Microsoft Office
    - By posting course work and assignments on line for students to access
- Communicate with peers, students, parents and administrators frequently, effectively, and efficiently through a variety of electronic resources
    - By using email
    - By using safe chat through Moodle
    - By using Skyward
- Participate as informed decision-makers regarding the best uses of technology
    - By participating in the technology committee and the technology curriculum committee

Administrators will be able to:

- Use computers and other electronic technologies to facilitate productivity
    - By using Office applications, the student information system database, and other web based applications
    - By using current presentation technologies
- Communicate easily and frequently with parents, peers, students, and staff using electronic resources
    - By using email
    - By using Moodle
    - By using EdYES!
- Demonstrate regular use of technology to access information for decision-making and professional growth
    - By using our data warehouse to compare assessment information
    - By using Safe Schools training resources
- Manage information relative to curriculum implementation, student activity, and performance
    - By using web based programs like Curriculum Crafter
- Use technology to conduct research regarding district-wide needs and learning trends
    - By using Skyward to track growth or trends in learning
- Utilize technology to collect data, report information, and evaluate results of students' individual educational plans as required by the Michigan State Board of Education's Standards for Accreditation, EdYES! program, and the Federal Governments No Child Left Behind Act of 2001.
    - By using the testing results from the State MME and MEAP

I. CURRICULUM

Goal:

Through the use of the integrated technology curriculum, every student will attain the ability to use basic technology tools in everyday life.

A. SECTION 4 – Curriculum Integration

Strategy	Staff Responsible	Persons Involved	Begin	End	Assessment
Integrated Curriculum Review K-12	Technology Curriculum Committee	Staff	Twice yearly	Never	Meeting Minutes and comparison to the Michigan Technology Content Standards http://www.michigan.gov/mde/0,1607,7-140-28753_33232_37328---,00.html
Integrated Curriculum Usage	Building Administration	Staff and Students	On-going	Never	Staff Evaluations/Student Assessments
Lab accessibility during and after school	Technology Department/Building Administration	Staff and Students	On-going	Never	Lab schedule and usage review
Software review and alignment	Technology Committee Curriculum Committee	Staff	On-going	Never	Meeting Minutes
Integration of Business, Management, Marketing, and Technology standards as set forth for 9-12 students	Instructional Staff	Instructional Staff	On-going	Never	Michigan Center for Career and Technical Education http://www.mccte-fsu.org/

Future Goals

- Consider offering virtual field trips as an enhancement to curriculum delivery. Our students would be able to interact with experts across many miles, from many fields of study and from many different social and geographic settings.

- Offer elective credits covering many subjects which our staff may not be adequately prepared or certified to teach; such as, marine biology, advanced anatomy and physiology, college level mathematics, and various foreign languages.

- Increase dual-enrollment opportunities for students wishing to enroll in college level courses while still in high school.

- Continue to research available software and/or hardware to offer remediation to students and/or provide assistance to special needs students. (For example, voice recognition software, screen magnifiers, etc.)

- Continue to research available software and/or hardware to offer advanced curriculum to gifted and talented students.

  Please reference: www.iste.org for additional ideas and practices.

B. SECTION 5 – Student Achievement

Summary

The integrated technology curriculum provides for the use of technology during the regular delivery of instruction in all courses for all students where there is a practical application of technology. All teachers at all grade levels have the responsibility to assure that their students are receiving integrated instruction. That instruction may be delivered by the classroom teacher or an assigned computer lab teacher or media specialist. Additional opportunities are available to all students via labs, classroom computers, media centers, Neo carts, and open lab times on select evenings. (See Appendix B and the MDE/METS site http://www.techplan.org/)

Timeline

The K-12 technology team was initiated during the fall of 2003. The technology team is responsible to develop the District's Technology Plan by combining components from each curricular area, at each building level. Integration of technology is a priority. Technology is utilized as a tool for at-risk students, to gain credits, to take advanced courses, and to deliver curriculum across the district. The integrated curriculum is reviewed twice yearly and updated as needed.

Assessments

Student achievement is measured by several means, for all students, through the use of online technology proficiency tests, local assessment (report cards), MEAP, MME, etc.

C. SECTION 6 – Technology Delivery

Currently Used Technologies

The Internet has become an indispensible tool for the delivery of instruction. More and more of our course work and curriculum content is being delivered via web based resources. These resources can be accessed anywhere an Internet connection is available and become the foundation for the expansion of the classroom beyond its physical walls.

- Students have access to the following web based resources for the purposes of instruction and research:
  - Students can easily see all of these resources via the district's web site. http://www.bas-k12.org/index.php/online/c/students/
  - General Internet Access, Moodle-web based course instruction, Destiny-web based library card catalog, Real Math-web based, Science Builder-web based, Accelerated Reader and Star-web based, Career Cruising-web based, Holt Math-web based, Michigan Virtual High School-web based, Nova Net-web based, Skyward-student grading, demographic, discipline, and assignment access
- Students have access to the following applications for the purposes of instruction and research:
  - See District Software in Section 11
- Students have access to the following hardware for the purposes of instruction and research:
  - See District Hardware in Section 11

Our distance learning experiences currently occur through the use of internet related distant resources such as online educational games, online testing and assessment tools, and career planning and job skill assessment sites. Many of these resources have curriculum differentiation built in which allows the student to practice independently on areas of weakness or for further information. Furthermore, students and staff are able to stay current with up to date information via online dictionaries and encyclopedias and other reference materials including on demand video archives provided through Discovery Streaming Video services. Some of our students collaborate with staff and fellow students via Moodle and Michigan Virtual High School.

Future Technologies

We believe that the future of technology is going to be very mobile. If we are going to make technology integration a part of everyday life for students then they are going to need access to technology at their fingertips. Teacher integration will improve when the teaching moment can be realized at the moment of instruction, not at a time when a lab becomes available.

D. SECTION 7 – Parental Communications and Community Relations

Parental Communications and Community Relations

- The Technology Plan is posted on the district's web site for parents and future community members to view at any time. (http://www.bas-k12.org/index.php/departments/documents/technology/) The community can access our existing home/page/web/internet server to obtain library resources, calendar information, and their own students records including grades, assignments, health records, attendance, discipline, progress reports, food service purchase, balance information, etc. through a secure login. Parents can also monitor their students reading progress via Home Connect. (http://www.bas-k12.org/index.php/online/)

- The district sponsors an event called Community Showcase. Once a year, in the spring, community businesses set up booths throughout the high school building. The entire community is invited to browse, sample products, and ask questions about various businesses in our community. Various departments in the district also set up booths in order to have the chance to educate interested community members about what happens in their school system. The showcase is well received by the community. On that day, the technology department is one "business" helping parents with technology issues.

- A newsletter called the Belding Banner is published six times a year and sent to the entire community updating them on current issues related to the school. This publication may also be viewed on the district website.

- The district's new website also has a current news feature with a RSS feed to any who are interested.

- The district's strategic planning team also provides feedback and direction for technology implementation in the district.

- We have installed an automatic dialer with logging capability in order to make sure that all parents/guardians receive a call notifying them of any attendance/food service issues regarding their student(s).

- We have and will continue to use a unified student database system called Skyward.

- This system has a parent/family access module which has the following features:

  Access to real-time student information via a secure Internet connection

  - Available 24 hours a day, seven days a week
  - Increases communication between home and school

- Saves parents time and money:
    - Fewer phone calls to teachers and office staff
    - Use less paper
    - Postage costs can be significantly reduced
- Available anytime, from anywhere via a secure web connection, Family Access keeps the district in touch with parents, and parents in touch with children

What can parents see?

- Grades
- Daily Assignments
- Report Cards
- Attendance
- Class Schedules
- Emergency Contact/Student Address Information
- Bus Schedules
- Health Records
- Food Service
- Fee Management
- Discipline
- Customized Reports
- Visual "reminder" for parents to keep contact and health record information up-to-date

What can parents do?

- Notify school of absences
- Email school personnel
- Print reports
- Submit student course requests
- Update their email address
- Retrieve their "forgotten" login and passwords
- Update contact information in Skyward which saves the district significant time in administrative overhead
- View food service balances and outstanding fees saving additional time of office personnel

What can students see?

- Grades
- Daily Assignments
- Report Cards
- Attendance
- Class Schedules
- Emergency Contact/Student Address Information
- Health Records

- Food Service
- Discipline

E. SECTION 8 - Collaboration

Belding Area Schools K-12 program does not provide adult education for GED Certification; therefore, this technology plan does not address those issues.

II. PROFESSIONAL DEVELOPMENT

Goal:

Every staff person will have the opportunity for professional development, which enables staff to comfortably and effectively use appropriate technologies in the educational setting. Two of the goals of this plan, besides the current ongoing goals, are to train staff in the usage of online course development software, and to provide technologically based professional development opportunities for administrators.

F. SECTION 9 – Professional Development

Professional Development

Currently, each building has a School Improvement Committee, along with a District K-12 technology committee which serves as the voice of the staff and plans for future training, initiatives, and goals for the district and/or building. In addition, these committees plan in-services and schedule appropriate speakers/trainers as needed. The training activities apply to all staff and administrators.

New Goals

Activities	Staff Responsible	Start Date	Completion Date
Provide training on Moodle web based instructional delivery development and publishing and its use in achieving curriculum goals	Technology coordinator/building representatives and the Technology Committee	2009	Training started in 2009 and is continuing as PD each year.
Implement a technology professional development plan for administration and staff members so that National and State assessments are achieved.	Administration and Technology Curriculum Committee	2009	As needed

Moodle training began with training core staff in the summer of 2007. It is now time to increase the usage of this program to the staff in general so that their classroom content can be assessable to students outside of the classroom.

Technology professional development for administrators is not a new concept but we believe that it is necessary for the growth of the staff in technology integration. (http://www.iste.org/Content/NavigationMenu/NETS/ForAdministrators/2002Standards/NETS_for_Administrators_2002_Standards.htm)

Ongoing Goals

Activities	Staff Responsible	Start Date	Completion Date
Provide continued training in Skyward	Building representatives	On-going	As needed
Provide training in Microsoft Office applications and its use in achieving curriculum goals	Technology Curriculum Committee	On-going	As needed
Provide ongoing training in Microsoft Outlook	Building representatives	On-going	As needed
Provide training on Moodle web based instructional delivery development and publishing and its use in achieving curriculum goals	Technology coordinator/building representatives and the Technology Committee	On-going	As needed
Research the opportunities for student, staff, and administrative training through Michigan Virtual University	Technology Curriculum Committee	2009	As needed
Provide opportunities for regular training for the technology department.	Technology Director	On-going	As needed
Provide ongoing training on auxiliary products, CD burners, scanners, digital cameras, etc. and their application and integration into current activities	Building representatives	On-going	As needed
Research distance learning opportunities in order to bring course offerings from university campuses to BAS campus.	Technology Committee	2009	As needed
Provide training for all staff in Safe Schools	Web based Safe Schools Training	2009	As needed
Provide training for all staff on the integrated media center program	Media Center Specialist	2009	As needed
Provide training for all staff on Discovery Streaming Video services	Media Center Specialist	2009	As needed
Provide training for staff on Neo cart usage	Building representatives	2009	As needed

G. SECTION 10 – Supporting Resources

Current Resources

District Policies and Plans

- Board of Education Policy Manual – Provides description of required practices for technology usage.
- Strategic Plan – Provides the future direction of the district as a whole including technology. (http://www.bas-k12.org/index.php/departments/general/board-of-education/strategic-plan/)
- Technology Plan – Provides specific direction for the implementation of technology. (http://www.bas-k12.org/uploads/documents/forms/BAStechplan09-12.pdf)
- School Improvement Plan – Provides general requirements for school improvement. This plan and the strategic plan will become one plan at some point in the future. (http://www.bas-k12.org/index.php/academics/school-improvement/)
- Acceptable Use Policy – Provides clarification for requirement of technology usage and accountability. (See technology plan)

Web based Resources

- District Website – Complete resource for all to use. Everything about who we are, what we do, and what is happening is posted to this site. Also, major parent, staff, and student resources are easily accessed from this site. All district internal and external forms are available on this site.
- Discovery Streaming – video archive for instructional content
- Moodle – online class and course tool for instructional staff
- Destiny – library card catalog and linked research application
- Real Math – math program
- Science Builder – science program
- Accelerated Reader and Star – reading and assessment program
- Career Cruising – career planning program
- Holt Math – math program
- Michigan Virtual High School
- Nova Net – self paced courses
- Skyward – integrated student information system
- Asset Navigator – electronic help desk software, tracking and communication software
- Safe Schools – staff training software
- Learning Point/TechPoint-assessment program which is currently used for assessing the State Technological Literacy Benchmarks for 5th and 8th grades
- Curriculum Crafter – curriculum development and management software

Other Resources

- Ionia ISD Technology Coordinators Group – County wide technology discussion and planning
- Kent ISD – County wide technology discussion and planning
- Professional Development – Scheduled times throughout the year when staff receive instruction regarding software usage

Future Resources

Belding Area Schools is committed to keeping the best possible tools in place for teachers, students, and parents who are all part of the educational process. Therefore:

- We evaluate all of our existing resources yearly to insure that they are still the best tool for the job.
- We meet with others outside of our community at the county and state level to discuss new tools which may accomplish our educational goals.
- We attend conferences which further broaden our perspective regarding what is available and working for others in our state and across the nation.
- We will need to acquire additional Internet bandwidth to meet the growing set of web based tools and applications.
- We will need to install a fiber optic connection to our ISD for shared resources.

III. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT AND SOFTWARE

Goal:

All hardware, software, video, audio, network, and Internet systems will be maintained or replaced as necessary in order to keep the tools of technology available for use in the delivery of instruction and the administration of the districts business. This goal is essential for the students and staff to be able to carry out the integration of technology in the process of curriculum delivery.

H. SECTION 11 – Infrastructure Needs/Technical Specification and Design

Current Technology

The hardware and software listed below are currently used by the district in order to meet the goals of the district's technology vision.

District Hardware

The district uses desktop computers (685), laptop computers (30), digital projectors (30), VCRs (180), DVDs (30), Cable TV, networked servers (11), virtual servers (19), switches (29), routers(2), media converters (4), UPS power backup (15), video security (40), digital PBX (1), cell phones (17), wireless access points (38), printers (15), networked copiers (22), Neo carts (60 units=2carts), plotter (1), scanners (10), barcode readers (12), touch screen monitors (8), Smart Boards (3), and Blackberry Phones with data capability(6).

Due to a recent Bond passing the following hardware items will be installed into each classroom(C), office space (O), and meeting room (M):

- One VoIP phone with data pass through capability for computer connection. (C, O, M) installed in 2010/2011 school year.
- One Desktop w/flat panel display or Laptop teacher unit. (C) Installed in classrooms when construction is allows 2010-2013.
- One multimedia presentation system consisting of Projector, Mount, Projection Screen, Speakers, Amplifier, Document Camera, Voice Enhancement and spare bulb. (C, O) Installed in 2010-2013.
- Planning for one 30 unit computer lab at Ellis Elementary installed in 2010-2013.
- Planning for two 30 unit computer labs at the Middle School installed in 2010-2013.
- Planning for two 30 unit computer labs at the High School installed in 2010-2013.
- Planning for two mobile netbook carts at Ellis Elementary installed in 2010-2013.
- Planning for three mobile netbook carts at Woodview Elementary installed in 2010-2013.
- Planning for four mobile netbook carts at the Middle School installed in 2010-2013.
- Planning for 635 netbooks one per student at the High School installed in 2010-2013.
- Planning for one Broadcasting studio at the High School.
- Planning for video surveillance system for all buildings.
- Planning for generator and whole room UPS emergency power backup system for network center.

District Software

The district uses Microsoft Office 2007 for pc and 2008 for MAC, Skyward student information system, Microsoft Windows XP pc operating system, Windows Server 2003 OS, Macintosh Server X, Macintosh OSX desktop operating system, Adobe Reader, Photoshop, PageMaker, Illustrator, Indesign, Rosetta Stone, Roxio, Microsoft Front Page, Quicken 2005, MI-Tracker, Microsoft Exchange and Outlook, Symantec Backup exec, Ghost, School Messenger, Adobe designer premier, AutoCAD 13, Accelerated Reader and Star, Nova Net, Destiny Library system, Type to Learn, First Robotics software, Oregon Trail, Microsoft works 8.5, Microsoft SQL server 2005, Acrobat 9 Pro, Examview assessment suite, Mavis Beacon Teaches Typing 5, Auto Sketch 2.1, ISPY treasure hunt, Write Out Loud, Photoshop Elements, Larson's Math, Deep Freeze, WinTronics, Carmen SanDiego, Reader Rabbit, Dark Basic, Kid Pix Studio, Final Cut Pro, Print

Artist, ILife, IWork, Dovestone , Geometry Sketch Pad, Kid Works Deluxe, and Story Book Weaver Deluxe.

The district pays for the following web based subscriptions: Real Math, Holt Math, Career Cruising, Discovery Streaming video resource, Science Builder, Safe Schools training, Curriculum Crafter, School Dude, Schedule Star, and Nova Net. As of the 2009/2010 school year the District has upgraded the Nova Net product to the more current completely web based E2020 program.

District Design

Our district network design is configured in a star topology using fiber optic cable as our backbone (see Appendix C).

We currently request and receive USF Funding to assist with the cost of our Internet connection. With this technology we can offer curriculum enhancing web based programs which are cost effective, available to the student outside of the classroom, and allow the student and teacher greater opportunity for self-paced instruction.

District Future Needs

The district is charting a course which is designed to increase the time on task for student learning by expanding the learning opportunities for students beyond the walls of the classroom and the time schedule of classes. One of the critical ways this takes place is through the use of the Internet. Without the Internet we would not be able to have web based instructional applications and online class rooms available 24/7/365 to students, staff, and parents. Our future needs will be fourfold as a result of this future vision. First, we will continue to seek web based course offerings and curriculum enhancing programs. As of the 2009/2010 school year the District has upgraded the Nova Net product to the more current completely web based E2020 program. We are changing our instructional typing program from Mavis Beacon to a fully web based program called Type to Learn 4 for 2010/2011. Second, we will need to increase our Internet band width to accommodate the increased use of these programs. During the 2010/2011 school year we will be increasing our bandwidth with the following strategy. We are going to drop our current 6MB bonded T-1 connection to our internet service provider and replace it with leased fiber. This fiber will connect us to our ISD whom with we will share a 60MB internet connection. We will more than double our internet bandwidth at the same cost of our existing connection. This connection also facilitates our fourth goal below. Third, we will need to move towards a 1 to 1 student to technology ratio in order to have each student able to have the technology to accomplish their educational goals. Due to the recent passage of a Bond we are looking at replacing our existing wireless infrastructure with equipment which will handle the connections necessary for a 1 to 1 program sometime in the 2012/2013 year. We would also begin a 1 to 1 program, probably at the High School with smaller installations in the rest of the buildings during that same time period. Forth, we will need to connect directly to our ISD via fiber optics in order facilitate further collaboration between students and staff across our county.

District Support

Belding Area Schools believes that it needs the support of all of its employees and the community in order to accomplish the mission of this plan. Parents have to support their students. Administration has to provide the vision for the staff and hold them accountable. Teachers have to integrate the use of technology into their regular instruction and set the student expectation of performance in conjunction with parents.

However, a specific portion of the responsibility of this plan falls on the Technology Department. The Technology Department has to maintain the systems and keep moving forward with new technologies in order to keep working tools available for students and staff. Please visit us at http://www.bas-k12.org/index.php/departments/detail/technology/ for more information about our department.

District Support Assessment Strategies

We have established good maintenance practices for upkeep of current resources.

- Materials are reviewed annually for currency and for value to the curriculum in supporting student learning. Those resources or materials that no longer support the goals of the instructional program are withdrawn.
- Properly trained technical personnel are hired or contracted to perform maintenance and repair.
- Emergency repairs are made promptly.
- Records adequately document repair and maintenance of equipment.
- A comprehensive security system is in place to safeguard the school's information technology resources.
- The school maintains an up-to-date inventory of its information technology resources (Asset Navigator).
- All materials and equipment are classified, cataloged, and processed at the time of their acquisition.
- All work requests are entered into Asset Navigator. This program allows staff to submit help tickets via email which are then given a timeline and assigned to a technician. Any work the technician does is tracked by the system and email updates are automatically sent to the person submitting the request in order to keep them informed as to the status of their request.
- The school's insurance policy provides adequate coverage for materials and liability.
- See http://www.bas-k12.org/uploads/documents/forms/5yeartech.pdf for the complete maintenance plan.

I. SECTION 12 – Increase Access

Our current technology plan provides for the upgrade and maintenance of all existing technology through regular replacement and evaluation practices. It can also provide for the expansion of technology when curriculum dictates. The procedure for adding technology for general usage is as follows:

- The request has to be defined with exemplary justification based upon curriculum driven instructional goals, special needs, and/or current administrative best practices.
- The request has to be presented to the District Technology Committee for review, discussion, and approval.
- Funding for the request can come from various sources depending upon the amount and may be subject to other levels of approval.
- Implementation will take place after all materials have been procured.

The procedure for adding technology for special needs is currently split between the District and our ISD partnership. The technology department has added a line item to its budget to handle some of those costs.

We have also increased access to technology for teachers and students during the 06-09 cycles in the following ways:

- We have added a general use computer lab at Alternative Ed (20 Units).
- We have added a general use computer lab at the Middle School (24 Units).
- We have added a general use computer lab at Woodview Elementary (30 Units).
- We have added 2 Mobile Neo carts at Ellis Elementary (60 Units).
- We have added 6 general use computers at Ellis Elementary Media Center.
- We have added a district wide secure wireless network.
- We have added digital projectors to most of the large instruction areas and in several classrooms throughout the district.
- We have redesigned our website to provide for better communication between parents, staff, and students.
- We have installed Moodle so that our teachers and students can continue course work when outside of physical classroom.
- We have installed an auto dialing program which calls homes for attendance, food service, emergency, and other types of notifications.
- We have upgraded our reading assessment program to allow parents to see the progress of their students and allow the students to continue their reading improvement through the summer months.
- We have increased our Internet bandwidth to accommodate greater numbers of simultaneous users and higher bandwidth technologies.
- We continue to maintain and upgrade our student database management system which allows students, staff, and parents access from anywhere in the world.
- We have replaced core switching in our network which will keep things running without down time.
- We have replaced our printing services with a new copier contract which also gives our staff the ability to print in color in a cost effective manner.

- We have installed a Weather Bug weather station for all staff and students to be able to access local data.
- We will continue to maintain all of these systems and look for other opportunities to grow and expand as resources allow.

IV. FUNDING AND BUDGET

Goal:

Although the district is committed to maintaining its funding for technology it will evaluate opportunities for alternative funding sources through USF, grants, and collaborative planning/purchasing partnerships.

J. SECTION 13 – Budget and Timetable

Educational Technology Plan Budget 2009-2012

	Year 1 2010-2011	Year 2 2011-2012	Year 3 2012-2013
Funding Sources:			
General Fund	$378,000.00	$378,000.00	$378,000.00
Grant Funding	$0.00	$0.00	$0.00
E-Rate Funding	$19,000.00	$19,000.00	$19,000.00
2010 Bond	$700,000.00	$700,000.00	$700,000.00
Total Funding	**$1,097,000.00**	**$1,097,000.00**	**$1,097,000.00**
Expenditures:			
Salaries and Benefits	$293,800.00	$293,800.00	$293,800.00
Hardware and Networking costs	$26,250.00	$26,250.00	$26,250.00
License Agreements	$35,350.00	$35,350.00	$35,350.00
Maintenance	$2,000.00	$2,000.00	$2,000.00
Partnership	$5,000.00	$5,000.00	$5,000.00
Assistive Technology	$3,000.00	$3,000.00	$3,000.00
Internet	$24,000.00	$24,000.00	$24,000.00
Professional Development	$5,000.00	$5,000.00	$5,000.00
General Office Costs	$2,600.00	$2,600.00	$2,600.00
2010 Bond	$700,000.00	$700,000.00	$700,000.00
Total Expenditures	**$1,097,000.00**	**$1,097,000.00**	**$1,097,000.00**

Timetable

We have established a practice for evaluation and replacement of hardware and software.

- Desktop CPU – all models are currently replaced on a six-year cycle and are evaluated yearly.
- Servers – all servers have a six-year replacement cycle however newer technologies have us looking toward net storage solutions. In 2009 we moved a majority of our servers to a virtual platform. In 2010/2011 we will be expanding our SAN to accommodate increased internet services as well as establish a VMWare maintainence program.
- Switching – all switches have a 6-year replacement cycle and are evaluated yearly. We will be upgrading some of our existing switching in the 2010/2010 school year as a result of the phone system replacement. This includes cabinets for the switches and UPS systems to maintain power in the event of a power outage.
- Software – software licensing/upgrades and replacement of all operating systems and desktop applications are reviewed yearly.
- Printing Services – all printing services are reviewed yearly.
- Internet Connectivity – our Internet service contract is reviewed yearly to assure quality, cost effectiveness, and appropriate bandwidth.

K. SECTION 14 – Coordination of Resources

This plan assumes that Belding Area Schools will be operating under approximately the same budgetary limits for the next three years. The present budget includes a plan for on-going costs, a replacement plan for equipment at each building, professional development opportunities, and on-going maintenance issues. One such maintainence issue which hit us in the 2009/2010 year is the partial collapse of our districts phone system. In the 2010/2011 school year we are planning on replacing the 14 year old broken system with a modern VoIP system which will run over our network. An IP phone will be installed in every classroom, office, and meeting area with all of the normal features including E911 capability. Due to the age of our existing system we are no longer able to obtain replacement parts. In addition, Belding Area Schools will research the opportunities for a bond proposal in order to fund additional informational technology needs for growth in the student to computer ratio, distance learning opportunities, and technology and staff professional development.

Belding Area Schools will continue to research opportunities for partnerships with local colleges, businesses, and local cooperatives, and weigh the advantages and disadvantages of leasing versus purchase agreements.

Belding Area Schools will continue to check with REMC and State bid lists for the acquisition of hardware and software at group discounted rates/education rates.

Belding Area Schools currently shares some resources with the ISD which is a cost savings to the district. During the 2010/2011 school year we are going to drop our current 6MB bonded T-1 connection to our internet service provider and replace it with leased fiber. This fiber will connect

us to our ISD whom with we will share a 60MB internet connection. We will more than double our internet bandwidth at the same cost of our existing connection. One opportunity which is available to us as the result of this is the ability to save costs with our new phone system by using the ISD's matching system as our backup and vice-versa. This will save us the cost of a second phone switch and an emergency 911 responder system.

E-Rate

Belding Area Schools applies yearly for USF funding in order to receive assistance with technology related costs. We will continue to apply for that assistance as long as the program exists. We currently apply for Internet costs assistance, local long distance assistance, and cell phone assistance. Along with the new phone system including E911 capability, we will be changing over from an older more expensive Centrex phone service to a much more cost effective PRI service in 2010/2011. The PRI (Primary Rate Interface) is standardized telecommunications service level within as ISDN network. Our PRI will consist of a block of 20 DIDs, 23 Digital B channels, 23 caller ID, with unlimited local and long distance. Cell phones and cell phones with data service listed in section H are used by administrative staff. Cell phone users are required to have constant access to their respective areas of responsibility when they are out of the district in case of emergencies or for the regular operations of their buildings or departments.

Grants

Belding Area Schools has a grant writer to research appropriate local, State, and Federal grant opportunities. The grant writer will work with the current grant writer from the Ionia Intermediate School District, as well as building staff members, to seek out appropriate grants or corporate sponsors that will meet Belding Area Schools' informational technology goals. Examples of grant monies received in the past are Title II Federal funds for technology related professional development, Neo cart grant ($10,000), various local grants which provide assistance with classroom equipment like cameras, scanners, and the like. Most of the grants we receive are single disbursement grants. We will continue to apply for grants as they become available.

V. MONITORING AND EVALUATION

Goal:

Establish a yearly practice to evaluate the plans' goals as we do with the integrated curriculum.

L. SECTION 15 – Evaluation

The Technology Committee will handle responsibility for review and evaluation of the technology plan on an on-going basis. Using a variety of qualitative and quantitative measures, the Technology Committee will measure and report the effectiveness of Belding Area Schools' use and integration of technology. Revisions and recommendations will subsequently be recommended to the appropriate parties. Possible tools to be used:

- Surveys
- Interviews
- Observations
- Committee review
- Course instruction assessments (exams)
- On line assessments
- Successful course completion
- Review the results of 5th and 8th grade student technology assessment to inform instruction and curriculum in the technology classes.

In addition, annual assessments will be conducted regarding the amount and type of use of the computer labs, computers in the classroom, network services, use of other technologies – TV/VCR, laser discs, video cameras, etc., and cost for maintaining the equipment.

Strategies for unmet goals:

- Increase the number and variety of courses offered after the inception of a distance learning program.
- Determine through teachers' observation how much material was covered with the use of technology integration.
- Survey graduates to gauge their perceptions of being prepared for the use of technologies in the workplace and/or in higher-level educational institutions. This might also provide insight as to whether or not a technology upgrade is needed.
- Survey teaching and support staff to gauge their comfort with and degree of utilization of available technology.
- Use available software and the Internet to be able to evaluate how current curriculum complies with the Michigan Curriculum Framework.
- Implement assessment tools to evaluate the level of achievement for the K-12 technology literacy standards.

M. SECTION 16 – Acceptable Use Policy

Internet Filter

Belding Area Schools provides a complete filtering system for all Internet traffic via any type of connection through our network. We use a product called LightSpeed which allows us to block unwanted Internet sites while allowing access to educational sites. Our filtering is CIPA compliant and supported by our Board of Education Policy.

Acceptable Use Agreement

The acceptable use policy is a single document which applies to all users of Belding Area Schools' technology resources, and meets the CIPA standards set forth in the documentation at the following site: http://www.fcc.gov/cgb/consumerfacts/cipa.html

Each staff or student user must sign the policy before network access is granted. Any violations of the policy are processed by the building administrator, the Director of Technology, and/or the Superintendent. For a full text of the agreement see Appendix A.

Appendix A

Acceptable Use Agreement
Agreement between Any User and Belding Area Schools for the use of District Technology Resources

This agreement is entered into this _____ day of _____, 20___, between _____ ("User") and the Belding Area Schools. The District agrees to provide access to District Technology Resources for legitimate educational purposes that are consistent with the school District's policies. In exchange for the use of the District's Technology Resources I understand and agree to the following:

- I understand that my uses of the District's Technology Resources are a privilege. The privilege allows me to do the following:
    - I will use the data network for storing documents, images, or other electronic forms of media which I use for the delivery or receipt of instruction or for conducting the business of the district.
    - I will use the email system for communicating work or study related information with my fellow professionals or students or for conducting the business of the district.
    - I will use the Internet for the acquisition of information or resources which are related to the delivery or receipt of instruction or for conducting the business of the district.
    - I will be the only user of my account.
    - Any other use may result in the loss of the privilege or further disciplinary action.
- I understand that the District reserves all rights to any material stored anywhere on its network.
- I understand that any legal or financial encumbrances as a result of my uses of the District's Technology Resources are my responsibility.
- I understand that the District does not warrant that the function of the systems will meet any specific requirements that I may have, or that said systems will be error free or uninterrupted; nor shall the District be liable for any direct or indirect, incidental, or consequential damages (including lost data, information, or time) sustained or incurred in connection with my use of, operation of, or inability to use the system.
- I understand that I am responsible to manage the data that I store in any of the District's systems.
- I understand that the District shall periodically determine whether specific uses of the District's Technology Resources are consistent with the acceptable-use practice. The District reserves the right to log all network activity and to monitor all space utilization of users.
- I understand that the District must filter Internet traffic in order to assure a safe internet experience for all users of its network. Furthermore, I understand that some information which I can access from other locations outside the District may be blocked while I am using the District's network.
- I understand that I must abide by all copyright laws with regard to printed or digital information.
- Board policy, section 4500 Technology has been made available to me and I have read it.

In consideration for the privileges of using the District's Technology Resources and in consideration for having access to the information contained therein, I release the District, from any and all claims of any nature arising from my use, or inability to use these tools.

I will sign and return this form to the District Technology Director or designee before accessing any District Technology Resources. A copy will be placed in my personnel file. This agreement shall be valid for the complete term of my association with Belding Area Schools.

_____ _____
Adult/Student User Signature Date

_____ _____
Parent/Guardian Signature for Students Date

Revised 10-08

Appendix B

Sample of Integrated Technology Curriculum Elementary School

For full copy see: http://www.bas-k12.org/uploads/documents/forms/Technology_Curriculum.pdf

Grade	Content Knowledge/Skill	Objectives The Learner Will (TLW) Statements	Content Standards and Benchmarks	Student Expectations	Resources
K-2	Students are proficient in the use of technology Understand that people use many types of technologies in their daily lives (e.g. computers, cameras, audio/video players phones, televisions) Identify common uses of technology found in daily life Recognize, name, and will be able to label the major hardware components in a computer system (e.g. computer, monitor, keyboard, mouse, and printer) Identify the functions of the major hardware components in a computer system Discuss the basic care of computer hardware and various media types (e.g. diskettes, CD's, DVD's videotapes)	TLW understand that people use many different types of technology in their daily life (computers, digital cameras, televisions). TLW recognize, name, and label the major computer parts. TLW know the functions of the computer system. TLW how to properly handle diskettes and CD's. TLW use dictionaries and age-appropriate encyclopedias for assignments. TLW be aware how to open, close, save, and print. TLW recognize the home row, letter, and number keys. TLW attempt to type 5 wpm @ 80% accuracy.	Awareness in K - moving to mastery by the end of 2nd grade.	Once per week all year with media specialist - practice time in the classroom	Type to Learn 3 Kid Works Deluxe Story Book Weaver Microsoft Word Paint Internet KidPix Keyboarding Worksheets Staff person to conduct classes Teacher Professional Development use of lab and software Two or more classroom student computers Rolling Computer Lab

Grade	Content Knowledge/Skill	Objectives The Learner Will (TLW) Statements	Content Standards and Benchmarks	Student Expectations	Resources
K-2	Use various age-appropriate technologies for gathering information (e.g. dictionaries, encyclopedias, audio/video players, phones, web resources) Use a variety of age-appropriate technologies for sharing information (e.g. drawing a picture, writing a story) Recognize the functions of basic file menu commands (e.g. new, open, close, save, print) Proofread and edit their writing using appropriate resources including dictionaries and a class developed checklist both individual and as a group	TLW use grade level appropriate checklists. TLW will operate how to use the mouse (left click, menu click). TLW learn how to login and out, close all applications.			

Sample of Integrated Technology Curriculum Middle School

For full copy see: http://www.bas-k12.org/uploads/documents/forms/Technology_Curriculum.pdf

Grade	Content Knowledge/Skill	Objectives The Learner Will (TLW) Statements	Student Expectations	Resources
6th grade	Use proper keyboarding techniques Use appropriate technology terminology Use a variety of technology tools Identify a variety of storage devices Proofread and edit writing using appropriate resources (e.g. spell check) Identify characteristics that suggests the computer system hardware or software might need to be upgraded Describe strategies for identifying and preventing routine hardware and software problems Discuss common hardware and software difficulties and identify strategies for trouble-shooting and problem solving Identify changes in hardware and software systems over time Understand the potential risks and dangers with online communications	TLW use Type to Learn 3 a minimum of 3 days a week. TLW be able to keyboard 25 WPM with 90% accuracy. TLW complete a computer hardware test. TLW use spell check and thesaurus. TLW will update computer systems as necessary per teacher requests. TLW have a presentation from a district technology representative. TLW use the computer to save printed work. TLW have grade level appropriate checklists. TLW take online safety quizzes. TLW read and sign an AUP with the district. TLW properly cite electronic resources. TLW access their Skyward account and use Moodle. TLW understand copyright issues and laws.	9-week session 45-50 minutes per visit	Type to Learn Microsoft Word Internet Apple Works Skyward

Grade	Content Knowledge/Skill	Objectives The Learner Will (TLW) Statements	Student Expectations	Resources
6th grade	Discuss issues related to acceptable and responsible use of technology Provide accurate citations when referencing information from outside sources in electronic reports Identify uses of technology to support communications with peers, family, or school personnel Describe possible consequences and costs related to unethical use of information and communication technologies			

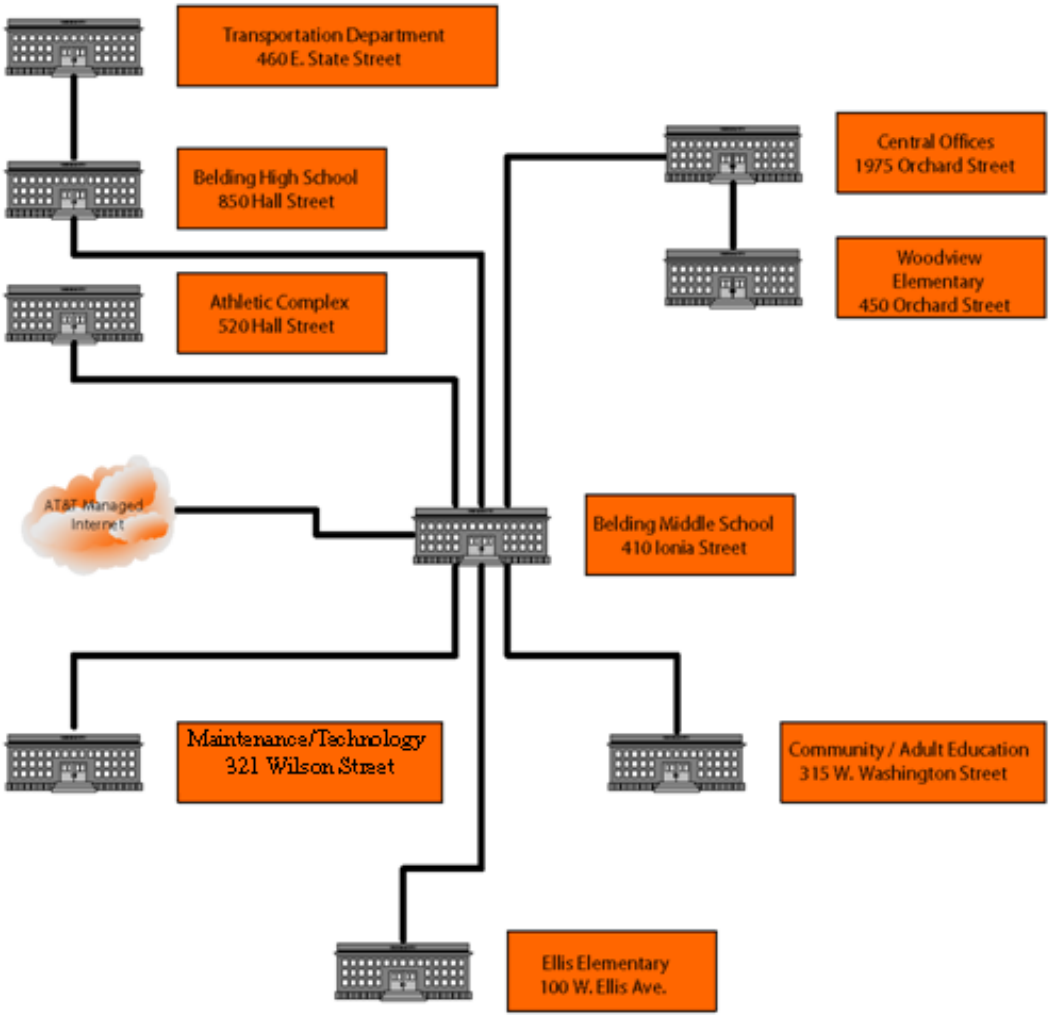
Sample of Integrated Technology Curriculum High School

For full copy see: http://www.bas-k12.org/uploads/documents/forms/Technology_Curriculum.pdf

Grade	Content Knowledge/Skill	Objectives The Learner Will (TLW) Statements	Content Standards and Benchmarks	Student Expectations	Examples Learning Time	Resources
9 – 12	Keyboarding	Mastery of keyboarding skills	Basic Operations/ Concepts	Experiential	Daily practice	Type to Learn and Microsoft Word
9 – 12	Computer Knowledge	TLW gather, interpret, analyze, and refine data contained in symbols, pictures, charts, and/or graphs. TLW organize data using tables, charts, graphs, spreadsheets, and databases. TLW describe how changes in technology have impacted business, industry, and identify current trends.	Basic Operations/ Concepts	Experiential	Daily practice	Learning Microsoft Word 2007 Learning Microsoft Excel 2007 Learning Microsoft Access 2007 Learning Microsoft PowerPoint 2007
9 – 12	Computer Use	TLW perform Internet research, communication, e-business. TLW develop a business plan using Microsoft Office skills in Word, Excel, Access, and PowerPoint. TLW use Microsoft Word to create a writing assignment which includes two sources. TLW use Microsoft PowerPoint to create and present a speech as required.	Technology Tools	Experiential	Daily practice	Learning Microsoft Word 2007 Learning Microsoft Excel 2007 Learning Microsoft Access 2007 Learning Microsoft PowerPoint 2007 KC-4 Integrated Curriculum Texas Instrument Calculator

Grade	Content Knowledge/Skill	Objectives The Learner Will (TLW) Statements	Content Standards and Benchmarks	Student Expectations	Examples Learning Time	Resources
9 – 12		TLW use online course offerings according to KC-4 standards. TLW develop skills in Math Graphing.				

Appendix C


Transportation Department
460 E. State Street
Belding High School
850 Hall Street
Athletic Complex
520 Hall Street
Central Offices
1975 Orchard Street
Woodview
Elementary
450 Orchard Street
AT&T Managed
Internet
Belding Middle School
410 Ionia Street
Maintenance/Technology
321 Wilson Street
Community / Adult Education
315 W. Washington Street
Ellis Elementary
100 W. Ellis Ave.
Belding Area Schools
Oustide Plant Fiber Backbone
BAS
Belding Area Schools
Technology Department