

The Sidney Central School
District Comprehensive Technology Plan
July 1, 2015 - June 30, 2018

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SECTION A: LEA INFO

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SECTION B: INSTRUCTIONAL TECHNOLOGY VISION AND GOALS

The District Mission

The goals of Sidney's Instructional Technology are designed to be consistent with the district's Mission:

Challenging All Students to Achieve Their Greatest Potential.

Executive Summary

Vision

Recognizing that technology is a tool to support and enhance learning, the Instructional Technology plan supports the vision adopted by the Sidney Central Schools:

Graduate students who are well prepared for college, career and citizenship.

We will educate students who are literate in a variety of disciplines, who possess 21st Century skills, who view learning as a life-long endeavor, and who are self-reflective about themselves and their world. In order to accomplish this, we will work as a unified team with a singular focus on student achievement of Common Core, National and State standards. The use of data driven instruction, backwards curriculum design, instructional technology, and ongoing professional development reflects out collective commitment toward achieving this vision.

Goals

The District is committed to the development of grade level and/or content-based Professional Learning Communities (PLC). PLCs will regularly collaborate, share effective instructional practices, and analyze student achievement data, using common formative and summative assessments to improve K-12 instruction. The Instructional Technology plan will support PLCs through the following goals:

Goal 1: Increase teacher proficiency of student assessment software with directed professional development and Professional Learning Communities. Over the course of the plan, all teachers will become proficient in using assessment software to create formative and summative assessments and analyze data to inform instruction.

Goal 2: Increase teacher proficiency of high-yield strategies with directed professional development and Professional Learning Communities. Over the course of the plan, all

teachers will become proficient in using instructional technologies to engage students in high-yield instructional strategies.

Goal 3: Increase engagement and achievement of K-12 students with a technology integrated, CCLS aligned curriculum that allows for growth in information literacy, media literacy and digital citizenship as evidenced by classroom walkthroughs and student achievement on standardized exams.

Outcomes

All teachers will use technology in both instruction and assessment. As a result, students will actively use technology in conjunction with high-yield instructional strategies to improve achievement on standardized assessments. Instructional technology that supports these outcomes are possible because of a robust technology infrastructure, 1:1 devices for both teachers and students and availability of both instructional and assessment software.

Technology Plan Development

The Sidney Central School District Technology plan was developed in collaboration with a variety of stakeholders including, the Instructional Technology Coordinator, IT Project Coordinator, Director of Curriculum, Professional Learning Community Instructional Support Team, Principals from each school, Library media specialist, teachers, parents and community members.

Technology Plan Development Meetings			
Date	Purpose	Participants	Outcome
June 2015	To determine the status of technology infrastructure and hardware	Instructional Technology Coordinator, IT Project Coordinator, LAN Technicians	Provided a clear picture of the status of technology infrastructure and hardware and areas of need.
July 2015	To determine the current technology curriculum in the district	Instructional Technology Coordinator, Director of Curriculum, Library Media Specialist, Technology teachers, Professional Learning Community Instructional Support Team, Principals	Provided needs and goals of the technology curriculum and hardware/software necessary for growth
August 2015	To determine parent/community perception of the district's technology needs	Parents and community members	Provided an overview of parent/community perception of district technology needs

SECTION C: TECHNOLOGY AND INFRASTRUCTURE INVENTORY

The technology plan for the district includes the facilities, the network services, the hardware and the software necessary to achieve the standards of achievement as set forth by the NYS Education Department.

Summary

Every classroom will have multimedia equipment including: digital projector, computer, tablets, document camera, Apple TV and wireless Internet access (1 Gigabyte connection) and telephone related technology.

Needs Assessment

The Sidney Central School District has made investing in a robust infrastructure a priority. At this point the infrastructure meets the district's functional instructional needs, but requires continuous updates to remain current.

Hardware for Network

The Network Operations Center (NOC) will be maintained by Managed IT Services (MITS). The NOC is a room within the high school that houses all the network servers and central distribution equipment. The NOC serves as a connection to the servers maintained by the South Central Regional Information Center. It is also a center for the repair of equipment and includes services for:

- Business Operations
- E-mail for all staff
- Teachers/Staff
- Students
- Library
- Students Information System (PowerSchool)

A Disaster Recovery Plan is in place to assure continued access to all critical systems and data.

- Remote-site backup, UPS (uninterrupted power supply) on all major equipment
- Virtualization of servers

Computer labs will be maintained throughout the district.

- The high school has six computer labs.

- The middle school has four computer labs.
- The elementary has two computer labs
- The high school has three mobile labs.
- The middle school has two mobile labs.
- The elementary has three mobile labs.

The following network services will be provided:

- Content Filter Subscription
- E-mail Filter Subscription
- Website Content Manager
- Security Certificates
- Media Center

6. Each classroom will have three networked computers for student use.

7. Maintain one iPad for each teacher.

8. Maintain multimedia equipment in classrooms including: digital projector, computer, tablets, document camera, Smart Board, Apple TV and Internet access.

9. The library media services will be fully automated and include a web gateway for access from anywhere on the Internet.

SECTION D: SOFTWARE AND IT SUPPORT

1. The District has the following operating systems currently in use:
2. The District makes available and supports the following web browsers:
3. The District uses Schoology as its Learning Management System (LMS).
4. Software that supports classroom instruction
 - a. Imagine Learning
 - b. Compass Learning
 - c. Scholastic Reading Inventory
 - d. IXL
 - e. eDoctrina
5. Frequently used databases:
 - a. ProQuest
 - b. Academic OneFile
 - c. Discovery,
 - d. Literary Reference Center,
 - e. Opposing Viewpoints
6. Parent Portal: PowerSchool
7. Technology used to increase parent involvement:
 - a. District Website
 - b. District Facebook Site
 - c. Live Streaming of events through Cube
 - d. Twitter (at District and School Levels)
 - e. Emergency Broadcast System

Software

1. Standardization of software will result in the most efficient use of resources:
 - Server Software
 - Anti-Virus
 - Office Suite
 - Internet Browser
 - Student Management
 - Staff E-mail
 - Student E-mail

2. Other software packages may be used by individuals as long as it is compatible with the system, and approved by the Instructional Technology Committee.
3. All software purchases will be appropriately licensed for use on the network or workstation.

8. Technology Support Staff

Title	Current FTE's
Provided by the RIC	

SECTION E: CURRICULUM AND INSTRUCTION

Summary

The philosophy of the Sidney Central School District Technology Curriculum is for students to use technology to its fullest advantage and to acquire technology skills in order to become lifelong learners.

The Sidney graduate will be challenged to utilize a variety of technological tools to:

- use technology to become a productive and responsible citizen
- work ethically in individual and collaborative settings
- compete successfully in a complex society

The Sidney Central School District will use digital connectivity to improve teaching and learning through the availability of devices in every K-6 classroom and 1:1 devices for students in grades 7-12. All staff will have access to the same device as students so they can model and lead responsible use of the device. Professional development opportunities will be made available for all teachers to increase their capacity to teach a technology integrated curriculum.

Both staff and students will use a Learning Management System (LMS) to organize and reflect on their learning. All learners in the Sidney Central School District will create ongoing digital portfolios to showcase their learning in the LMS. It is by engaging teachers in processes similar to those they expect their students to do, that capacity is built.

Students with Disabilities

Technology can be leveraged as a tool to assist students with disabilities in full classroom participation.

Current Status

As part of a larger district initiative, all students in grades 7-12 have 1:1 devices. Students with disabilities work with Special Education Teachers to take advantage of the accessibility options built into the device and add applications that allow students greater independence while meeting their needs. Devices are also available in both general and special education classrooms K-6 as part of universal design for learning.

Needs Analysis

The Special Education department has identified three main areas of need with regard to educative and assistive technologies.

1. Individualized technology training for students with disabilities on ways to increase their independence using available technology and appropriate use of that technology including digital citizenship.
2. Additional technology training for Special Education teachers to better support students' usage of technology and appropriate use of that technology including digital citizenship.
3. Outreach to parents on ways to increase their students' independence using available technology and appropriate use of that technology including digital citizenship.

Plan to Address Needs

Approx. Date	Topic(s)	Audience	Delivery Method
September 2015	Using iPad accessibility options and dictation software.	Selected students with disabilities to pilot	In person, during school day
October 2015	Using iPad accessibility options, dictation software and digital citizenship	Selected Special Education teachers	In person, afterschool
October/ November 2015	Using available technology to increase student independence and appropriate use of that technology including digital citizenship	Parents of students with disabilities	In person, evening
Fall 2015	Using iPads in self-contained classrooms	Selected Special Education teachers	In person, afterschool or during the day
Spring 2016	Using iPad accessibility options and dictation software.	Additional Special Education teachers	In person, afterschool
Fall 2016	Using iPad accessibility options and dictation software.	Additional selected students with disabilities	In person, during school day
Fall 2016	Using iPad accessibility options, dictation software and digital citizenship	Additional Special Education teachers	In person, afterschool
Fall 2016	Using available technology to increase student independence and appropriate use of that technology including digital citizenship	Parents of students with disabilities	In person, evening
Fall 2017	Using iPad accessibility options and dictation software.	All students with disabilities who would benefit	In person, during school day
Fall 2017	Using iPad accessibility	All Special Education	In person,

	options, dictation software and digital citizenship	teachers	afterschool
Fall 2017	Using available technology to increase student independence and appropriate use of that technology including digital citizenship	Parents of students with disabilities	In person, evening

Technology Curriculum

The Sidney Central School District's Technology Curriculum is composed of two components.

1. Formal technology classes
2. Informal use of technology throughout the school day to assist in educational activities.

SECTION F: PROFESSIONAL DEVELOPMENT

Summary

In-service for staff is the single most important activity needed to insure a readiness to integrate technology into instruction. Needs assessments will be conducted on an ongoing basis to determine what training is needed. An Instructional Technology Coordinator will work one-on-one with staff and offer in-service training. Topics will be repeated as necessary. Staff will be compensated if participating in formal technology training during out-of-school hours.

Approx. Date of PD	Topic(s)	Audience	Delivery Method
Summer 2015	Introduction to SMS, iPads, and other district technology	Teachers new to the district	Direct, in person instruction
Fall 2015	eDoctrina: Introduction to Assessment Creation	Teachers new to the district	Direct, in person instruction
Fall 2015	eDoctrina: Introduction to Rubric Creation	Any teachers who did not use rubrics in eDoctrina last year	Blended
Summer/Fall 2015	Google Drive: Introduction to the Google Drive Ecosystem	All teachers	Blended
Fall 2015	Google Drive: Using Google Drive with Students	All teachers	Blended
Summer/Fall 2015	Schoology: Introduction to Schoology	Any teachers who have not used Schoology in the past	Blended using Schoology
Fall 2015	Schoology: Rubrics	Any teachers who have not used Schoology rubrics in the past	Blended using Schoology
Spring 2016	Schoology: Portfolios	All teachers	Blended using Schoology
Spring 2016	High-Yield Strategies with 1:1 devices	All teachers	Blended using Schoology
Spring 2016	High-Yield Strategies with Google Drive	All teachers	Blended using Schoology
Spring 2016	High-Yield Strategies with Schoology	All teachers	Blended using Schoology
Summer 2016	Introduction to SMS, iPads, and other district technology	Teachers new to the district	Direct, in person instruction
Fall 2016	eDoctrina: Introduction to Assessment Creation	Teachers new to the district	Direct, in person instruction

Fall 2016	eDoctrina: Personalized	Any teacher who needs it	Personalized, Blended
Fall 2016	Schoology: Introduction to Schoology	Any teachers who have not used Schoology in the past	Blended using Schoology
Fall 2016	Schoology: Personalized	Any teacher who needs it	Personalized, Blended
Fall 2016	Schoology: Portfolios	All teachers	Blended using Schoology
Spring 2017	High-Yield Strategies with 1:1 devices (two additional)	All teachers	Blended using Schoology
Spring 2017	High-Yield Strategies with Google Drive (two additional)	All teachers	Blended using Schoology
Spring 2017	High-Yield Strategies with Schoology (two additional)	All teachers	Blended using Schoology
Summer 2017	Introduction to SMS, iPads, and other district technology	Teachers new to the district	Direct, in person instruction
Fall 2017	eDoctrina: Introduction to Assessment Creation	Teachers new to the district	Direct, in person instruction
Fall 2017	eDoctrina: Personalized	Any teacher who needs it	Personalized, Blended
Fall 2017	Schoology: Introduction to Schoology	Any teachers who have not used Schoology in the past	Blended using Schoology
Fall 2017	Schoology: Personalized	Any teacher who needs it	Personalized, Blended
Spring 2018	Schoology: Portfolios	All teachers	Blended using Schoology
Spring 2018	High-Yield Strategies with 1:1 devices (two additional)	All teachers	Blended using Schoology
Spring 2018	High-Yield Strategies with Google Drive (two additional)	All teachers	Blended using Schoology
Spring 2018	High-Yield Strategies with Schoology (two additional)	All teachers	Blended using Schoology

Personnel

Title	Current FTE's
Instructional Technology Coordinator	.80

SECTION G: TECHNOLOGY INVESTMENT PLAN

Planned Instructional Technology Investments 2015-2018

	Anticipated Item or Service	Estimated Cost	Is Cost one-time for Annual?	Potential Funding Source(s)
1	Server/Network Software	100,000	One time	IPA
2	Other	100,000	One time	IPA
3	Laptops	50,000	One time	IPA
4	Desktops	80,000	One time	IPA
5	Tablets	100,000	One time	IPA

SECTION H: STATUS OF TECHNOLOGY INITIATIVES AND COMMUNITY CONNECTIVITY

The district plans to increase student and teacher access to technology, in school, at home, and in the community by continuing to issue 1:1 devices to all teachers and all students in grades 7-12. As part of the district's year-round reading program, students in the elementary school are encouraged to check out leapfrog devices to interact with texts at home. These devices are part of universal design for learning that supports both special education and general education students.

SECTION I: INSTRUCTIONAL TECHNOLOGY PLAN IMPLEMENTATION

Goal 1: Increase teacher proficiency of student assessment software with directed professional development and Professional Learning Communities. Over the course of the plan, all teachers will become proficient in using assessment software to create formative and summative assessments and analyze data to inform instruction.

Dates	Actions	Outcomes
2015-2016	<ul style="list-style-type: none"> Continued professional development on eDoctrina. Participation in district data-driven instructional process to assess effective use of software and data retrieval/analysis 	<ul style="list-style-type: none"> 100% of teachers will use eDoctrina to create common formative assessments (CFAs) and summative assessments and analyze student achievement data to drive instruction. 60% of teachers will create project or performance-based assessments in eDoctrina.
2016-2017	<ul style="list-style-type: none"> Creation of authentic assessments using a combination of eDoctrina, Schoology, Google Drive elements and a one content specific software for SLO course(s). Participation in district data-driven instructional process to assess effective use of software and data retrieval/analysis 	<ul style="list-style-type: none"> 80% of teachers will create project or performance-based assessments in eDoctrina. 40% of teachers will create and administer authentic assessments using instructional technology.
2017-2018	<ul style="list-style-type: none"> Creation of authentic assessments using a combination of eDoctrina, Schoology, Google Drive elements and a one content specific software for all courses. Participation in district data-driven instructional process to assess effective use of software and data retrieval/analysis 	<ul style="list-style-type: none"> 100% of teachers will create project or performance-based assessments in eDoctrina. 60% of teachers will create and administer authentic assessments using instructional technology.

Goal 2: Increase teacher proficiency of high-yield strategies with directed professional development and Professional Learning Communities. Over the course of the plan, all teachers will become proficient in using instructional technologies to engage students in high-yield instructional strategies.

Dates	Actions	Outcomes
2015-2016	<ul style="list-style-type: none"> Professional development in two 	<ul style="list-style-type: none"> 60% of teachers will use

	high-yield instructional strategies and the instructional technologies to engage students.	technology to engage students in at least 1 high-yield instructional strategy.
2016-2017	<ul style="list-style-type: none"> Professional development in two additional high-yield instructional strategies and the instructional technologies to engage students. 	<ul style="list-style-type: none"> 80% of teachers will use technology to engage students in high-yield instructional strategies.
2017-2018	<ul style="list-style-type: none"> Professional development in two additional high-yield instructional strategies and the instructional technologies to engage students. 	<ul style="list-style-type: none"> 100% of teachers will use technology to engage students in high-yield instructional strategies.

Goal 3: Increase engagement and achievement of K-12 students with a technology integrated, CCLS aligned curriculum that allows for growth in information literacy, media literacy and digital citizenship as evidenced by classroom walkthroughs and student achievement on standardized exams.

Dates	Actions	Outcomes
2015-2016	<p>Focus on information literacy</p> <ul style="list-style-type: none"> Evaluate information from a variety of sources for accuracy, bias, appropriateness, and comprehensiveness. Students brainstorm ideas, build concept maps, outlines, and scaffolds to support student learning. Students will appropriately cite sources used for class assignments. 	<ul style="list-style-type: none"> Improve all students' academic achievement, including students with disabilities, by 10% as measured on a variety of assessments: Scholastic Reading Inventory Lexile levels (grades 7-8); locally created and vetted summative assessments; BOCES regional assessments (ELA and math, grades 7-8). Students in 60% of classrooms will participate in assignments that ask them to access, evaluate, and use research/inquiry skills to produce compelling work that aligns with CCLS.
2016-2017	<p>Focus on media literacy</p> <ul style="list-style-type: none"> Students are supported in the research cycle. Students can identify when technological tools can solve a problem, accomplish a task, or create a portfolio and be able to select the appropriate tool to 	<ul style="list-style-type: none"> Creation of media-rich student portfolios showcasing student growth and integration of technology in classrooms. Students in 80% of classrooms will participate in assignments that ask them to access, evaluate, and use

	meet that need.	research/inquiry skills to produce compelling work that aligns with CCLS.
2017-2018	<p>Focus on digital citizenship</p> <ul style="list-style-type: none"> • Students will become proficient web users and can discern truth and relevance from a flood of information, determine the credibility of web sites, and learn appropriate and ethical use of Web-based programs. • Students adhere to principles of computer technology ethics, safety and proper “netiquette” 	<ul style="list-style-type: none"> • 7-12 Student use 1:1 devices to complete course work and participate in appropriate digital interactions with each other and the broader community. • K-6 students participate in digital citizenship learning activities. • Students in 100% of classrooms will participate in assignments that ask them to access, evaluate, and use research/inquiry skills to produce compelling work that aligns with CCLS.

SECTION J: MONITORING AND EVALUATION

The Technology Committee will meet regularly (not less than twice a year) to review the Technology Plan and will perform the following tasks:

1. Review the goals of the Instructional Technology Plan
2. Identify what needs to be done in the future to accomplish these goals.
3. Identify revisions and/or additions to this plan that need to be made at this time to keep the plan current with technological progress.

Instructional Technology Plan

The following action steps will be taken each semester to determine the effectiveness of the instructional technology plan and progress toward goals:

- Observed curriculum integration of instructional technology through classroom walkthroughs.
- Common formative assessments and related data
- Teacher participation in regular PLC meetings
- Feedback to Instructional Technology Department
- Administrative supervision and evaluation.
- Stakeholder surveys

Please see Section I: Instructional Technology Plan Implementation for desired outcomes.

Services

The assessment of services will include telecommunications, hardware, and software.

Telecommunications

1. Each year the phone system must be evaluated to insure the best system and functionality.
2. The Internet Services will be evaluated based upon log files. These log files will include the usage of the system, amounts of bandwidth used, and amount of active user accounts.
3. The e-mail system will be evaluated based upon usage records.

Software

1. Before software purchases are made, the Instructional Technology Committee must conduct an evaluation of the product.
2. In order to continue the support of software purchases a positive evaluation must be presented to the Instructional Technology Committee.

3. Licensing laws must be followed at all times.

System Monitoring

To insure effective and safe use of the network services several monitoring systems will be in put into practice.

1. Network traffic, including amount and patterns will be tracked via software.
2. Backup of all server data will be performed and maintained.
3. Internet usage including amount of bandwidth used and by account. Log files will be kept that report all filtered sites that were blocked and which computer generated the attempt.

Technology Replacement and Support

1. We will continuously implement a five year rotation scheme that includes: devices, and computers.
2. Servers, printers, document cameras, interactive whiteboards, digital projectors, and other equipment will be replaced as needed.

Date of Public Forum for Internet Safety/ Cyberbullying Policy
URL and the year the policy was adopted for Acceptable Use Policy
Internet Safety/Cyberbullying Policy
Parents Bill of Rights for Data Privacy and Security

Section 5

INTERNET SAFETY

Network

- The district uses an internet security appliance (firewall)
- The district makes use of supervisory software in computer labs
- The district uses antivirus software
- Each individual in the district has a unique username and password to access the network

Instructional

As part of our technology curriculum, internet safety is addressed as part of Goal #5: “Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.” The following skills are taught as part of specific classes (i.e. Library Media Class in the elementary school; Information Literacy Class at the 6th grade level; Technology class at the 7th and 8th grade levels). In addition in the high school, an internet safety mentor program is offered.

➤ Grade 2 Benchmark:

- Students will learn basic internet safety skills (i.e. seeking adult help when something inappropriate comes on the screen)

➤ Grade 5 Benchmark:

- Students will practice safe and ethical information gathering using technology.
- Students will discuss cyber-bullying as part of the character education program.

➤ Grade 8 Benchmark:

- Students will learn advanced strategies for safe and ethical information gathering using technology.
- Students will learn appropriate and safe practices associated with the use of social networking tools (i.e. cell phones, email, social networking sites).
- Students will identify characteristics of cyber-bullying and strategies for dealing with it.

➤ Grade 12 Benchmark:

- Students will learn advanced strategies for safe and ethical information gathering using technology.
- Students will learn appropriate and safe practices associated with the use of social networking tools (i.e. cell phones, email, social networking sites).
- Students will recognize the long-term effects of inappropriate use of social networking.

APPENDIX B

It is recognized that this plan of action for technology implementation in the Sidney Central School District is a conceptual plan. This plan is a guideline to be followed by the district. It is understood that plans change as the needs change throughout the school district and community. (As requested by the Sidney Central School Board of Education)

APPENDIX C

Budgeting for the plan

1. The 3 year technology plan will be funded through local funds allocated to an Installment Purchase Agreement through BTBOCES.
2. New York State aided funds will provide for software and other hardware needs.
3. Local funding will pay for the membership in Model Schools, Instructional Technology Services, and Network Support Services at BT BOCES and Models Schools Services at DCMO BOCES and BT BOCES. These memberships provide for staff training.
4. Federal, state, and other grants provide additional funding when available (i.e. Title II D)
5. Local funding will pay into various Co-sers (Cooperative Services Agreement) that will provide technology services such as library databases and library automation.
6. Estimated Expenses are as follows: (These are 3 year expense totals)

• IPA 3 year expense	\$750,000
• Local Equipment	\$67,680
• Local Software	\$53,163
• Model Schools BTBOCES	\$37,539
• Staff training	\$133,029