

# South Colonie Central School District



## Integration Plan



2018-2021

Revisions: August 23, 2018  
December 22, 2016



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## **1.0 Introduction**

This technology plan is intended to be consistent with and supportive of South Colonie's educational mission and program initiatives. It focuses on the use of technology to transform education and to improve student performance, as envisioned in the New York State Learning Standards. The plan was developed from the strong belief, supported by research, that technology can significantly enhance the learning environment, increase staff productivity, and improve the teaching and learning process. Furthermore, technology is seen as a critical component for the preparation of our students. This technology plan defines the vision and objectives for moving the students forward into the 21<sup>st</sup> century.

### **1.1 Technology Planning Committee**

The K-12 IT Instructional Council members for 2018-2019 are:

- Brook Bourgeois.....Teacher, Lisha Kill Middle School
- Thomas Casey.....Teacher, Colonie Central High School
- Katherine Detrick.....Teacher, Lisha Kill Middle School
- Justin Defazzio.....Teacher, Colonie Central High School
- Jeffrey Dutcher.....Library Media Specialist, Colonie Central High School
- Christine Festin.....Teacher, Colonie Central High School
- Sherri Fisher.....Assistant Supt. for Management Services & Strategic Planning
- John Gehres.....Teacher, Colonie Central High School
- Joseph Guardino.....Director of Athletics
- Debbie Koes.....Teacher, Veeder Elementary School
- Patricia Lopresti.....Teacher, Roessleville Elementary School
- Jacqueline Monger.....Teacher, Shaker Road Elementary School
- Jill Penn.....Principal, Forest Park Elementary School
- David Perry.....Asst. Supt of Human Resources, Safe Schools and IT\*
- Calvin Pitts.....IT Computer Tech



South Colonie School District

Kimberly Ringer.....Library Media Specialist, Roessleville Elementary School  
Gregory Sherwin.....Teacher, Shaker Road Elementary School  
Marybeth Tedisco.....Principal, Roessleville Elementary School  
Lindsay Tresansky....Associate Principal, Colonie Central High School  
Richard Thompson.....Teacher, Veeder Elementary School  
Matthew Veino.....Computer Applications Developer, IT Dept.

\*Chairperson

Administrative Technology Committee:

David Perry..... Asst. Supt of Human Resources, Safe Schools and IT\*  
Gregory Bearup..... Supervisor of Math and Science  
William Boardman..... Associate Principal, Sand Creek Middle School  
Sherri Fisher.....Assistant Supt. for Management Services & Strategic Planning  
Tom Kachadurian..... Associate Principal, Colonie High School  
Jill Penn..... Principal, Forest Park Elementary School  
Chris Robilotti..... Principal, Colonie Central High School  
Marybeth Tedisco.....Principal, Roessleville Elementary School  
Lindsay Tresansky....Associate Principal, Colonie Central High School  
Jennifer Wells....Supervisor of ELA, Reading and Social Studies

\*Chairperson



## 1.2 Acknowledgements

This Technology Plan is the result of the interest and commitment of Mr. Jonathan Buhner, Superintendent of Schools, and members of the Board of Education of the South Colonie Central School District. The charge from the superintendent to the Technology Committee was to provide a plan to meet the district's technology needs, including networking, hardware, software, staff development, maintenance and technical support personnel.

The committee chair would like to thank the members of the District Technology Committee for the effort they showed as we attempted to develop a plan that would provide major technology upgrading, integration and utilization in all of our district's schools (K-12).

The Technology Committee would like to thank all the teachers, students, and individuals from the community who participated in various surveys. They provided the committee with much needed input upon which this plan is partially based.

The initial Technology Committee members were:

- Jack Adams.....Director of Information Technology (Committee Chairperson)
- Gregory Bearup.....Math Teacher, Colonie High School
- Joseph Botta..... Technology Teacher, Colonie High School
- Jeanne Bush..... Library Media Specialist, Lisha Kill Middle School
- Deborah Gentile..... Teacher–grade 3, Saddlewood Elementary School
- Susan Matuszak..... Parent/UPSEU Representative, District Office
- Gail Newcomb..... Parent/CSEA Representative, Sand Creek Middle School
- Betty Peabody..... Teacher–grade 3, Shaker Road Elementary School
- Dominick Rivera.....Principal, Lisha Kill Middle School
- Christopher Schultz.....Special Education Teacher, Colonie High School
- Dorinne Williamson..... Business Teacher, Colonie High School



## **2.0 District Mission**

### **2.1 The Mission of the South Colonie School District**

The mission of South Colonie School District is:

- To ensure that every student develops the essential skills, knowledge and personal characteristics needed to become productive citizens and to live a useful and satisfying life.
- To empower students to be life-long learners in a society where change is constant and technology is integral to day-to-day business and personal activities.
- To create a challenging and developmentally appropriate learning environment that integrates resources (including technology) across all the curricular areas and where all students have equitable access to these technology resources.

### **2.2 South Colonie Educational Goals**

To accomplish its educational mission, South Colonie will plan, organize and manage its resources in order to:

- Provide a learning environment where students are focused on high levels of achievement, and continual improvement.
- Provide a learning environment that actively engages students in independent study, and research-based curriculum emphasizing higher level thinking, inquiry, and decision-making skills.
- Utilize research-based projects and teaching approaches.
- Change the teaching and learning environment to better address the requirements for higher achievement as reflected in the New Standards and Frameworks.
- Integrate technology as a delivery system and as a tool in the teaching and learning environment to extend curriculum, instruction and assessment practices.



### **3.0 Technology Planning Process**

The initial District Technology Committee was established at the direction of Dr. Thomas Brown, Former Superintendent of the South Colonie School District, with the purpose of developing and recommending a technology plan that will support the District goal to improve student achievement.

Surveys were designed and distributed at random to collect data that measured general knowledge, opinion and support for improving instructional technology for the students and community of South Colonie. This process involved a review and compilation of the data, and an analysis of the causes and effects of the problems and concerns presented. The survey results reinforced the District's commitment to move ahead with a technology plan.

The District sought out and employed the services of an outside facilitator to assist in the development of this plan. The Committee evaluated alternatives and built an implementation plan. A step by step procedure was then applied to the recommendations so that all requirements would be in place by the end of the plan. The Committee made recommendations in eight key areas: hardware, software, telecommunications, instruction and curriculum, personnel, staff development and planning.

The Committee meetings operated on the basis of consensus decision making and the Committee members all participated in the preparation of this final report. Each Committee member understands that planning and evaluation is an ongoing process.

The current Technology Committee has revised the original Technology Plan to take the District into the year 2021.



## **4.0 Technology Vision- Colonie 20/20 Vision**

### **4.1 Educational Vision**

South Colonie's curricular, instructional and assessment vision includes a focus on higher levels of achievement for all students. These higher levels of achievement are defined in the New York State Standards and Frameworks. The district has placed particular focus on reading and communication skills, along with math. Technology is seen as a vehicle to support and extend student learning in these and all other areas of the curriculum. The use of technology tools will be focused on the development of higher level analyses, evaluation, communications, presentation and decision-making skills. Software tools and software applications are to be selected based on the need to increase student learning within and across the subject areas in order to prepare students for their future in the 21<sup>st</sup> century.

The technology-enhanced learning environment that is envisioned in this plan is designed to be a powerful vehicle in helping the district to accomplish its educational mission and goals. Technology is also important as a means of changing teaching and learning in order to prepare students with the 21<sup>st</sup> century skills they need to be successful. This technology-based learning will expand the opportunities available for students to interact with, to understand and to change their world.

Within this Colonie 20/20 vision, technology is important for South Colonie because it does the following:

- Technology motivates and empowers students because it gets them actively engaged in learning. Technology-enhanced learning is not passive learning. Rather, technology involves the use of tools (such as word processing, graphics, presentation software databases, and the Internet) to interact with others, both students and adults, to create knowledge and to share knowledge.
- Technology impacts learning positively and significantly, based on a wide range of research studies.
- Technology creates information and knowledge producers, not just consumers. Students and teachers today can research and electronically publish their work on the World Wide Web, as they collaborate with other "researchers" from around the world.
- Technology creates the opportunity for more up-to-date and authentic learning experiences by getting students involved collaboratively in real-world projects and interacting with real-world professionals such as poets and scientists.
- Technology is a powerful "mind" tool (analogous to a physical tool such as a lever) that students can use for accessing and manipulating information, synthesizing concepts and communication ideas in video, text and audio media.
- Technology use prepares students as 21<sup>st</sup> century information workers and helps them to achieve world class standards and global competitiveness. As noted in the US Department of Labor's SCANS report, technology is an integral aspect of most future occupations.
- Technology allows teachers to individualize learning experiences based on learner needs and to better organize and track student progress.





- Technology enables student discovery and exploration of alternatives through software simulations. These simulations provide the opportunity to explore new concepts and environments with the time, cost or danger associated with many real-world situations.
- Technology creates learning beyond the four walls of the classroom. It expands the range of learning opportunities and curriculum resources for students who would otherwise be limited to what the division could make available in its library or resource centers.
- Technology connects individuals to new people and promotes understanding and equity by providing a diverse array of resources and experiences regardless of the geographic location of the student.
- Technology offers a multimedia interactive learning environment that is more motivating to today's students who have grown up with television and video games.
- Technology increases teacher and administrative productivity by providing tools that speed up the process of entering and analyzing data.

These points support and explain the district's vision of a technology-supported learning environment, and are important for all members of the school and the larger community to understand.

The South Colonie School District has a vision of technology that includes more than the use of computers; it encompasses a view of how multimedia, information and communications technologies can serve as a significant contributor to our district's mission of preparing students for success in the 21<sup>st</sup> century. The technology vision has four major components:

1. **Robust Network** -Infrastructure to provide access and connectivity.
2. **Hardware**-Proliferation of devices
3. **Professional Development Training and Support** to insure 24/7 Learning-Embedded, On Demand
4. **Digital Content and Curriculum Resources**-Using technology to support our vision of curriculum and instruction

### **Robust Network:**

The plan is intended to put the necessary technology infrastructure in place to build an interconnected electronic learning community that will provide adequate access to technology tools and resources, as well as provide connectivity for all students, teachers and staff. Teaching and learning involve a process of connecting individuals with each other, as well as with resources and applications. The infrastructure should provide widespread access that allows transparent, user-friendly communications.

Widespread and equitable access are key to gaining the maximum benefits of technology. Putting the appropriate tools in place, along with the necessary technical support insures that students, staff and the community will gain the maximum positive effect from their use. Using these technology tools will allow students and staff to achieve their educational goals.



The technology infrastructure for South Colonie is envisioned as having many different types of technology in place, including:

- A computer in each teacher's classroom/computers in teacher centers
- Computer labs in all buildings
- Library media centers in each building with WIFI and network access
- Access to school library resources from anywhere in the building
- Printer in each lab and the library media center
- Peripherals for the computer, including scanners, digital cameras, interface devices for music composition, and science probes
- Shared access to large screen projection capability for computers and video
- Network connections for all computers in each classroom, lab and library media center
- E-mail capability within the building and beyond
- Internet access from all designated workstations
- An award winning District web site that allows for ease of use and accurate information
- Distance learning capabilities, including interactive video, and other remote learning opportunities
- Multimedia and graphical production, including interactive video, and other remote learning opportunities
- Multimedia and graphical production, including digital photography and video production, focused on presentations
- Scientific, engineering and artistic devices
- Connections to video programming sources include cable television and satellite downlinks
- Parent and community access to school information and resources via the District ASPEN Portal
- Community use of school technology resources within the school

### **HARDWARE:**

South Colonie continues to seek digital technology solutions that enable staff to facilitate learning through technology and students to consume information and compose products representative of their learning. The District is committed to:

- Ensuring comprehensive access to technology for students
- Working toward a 1:1 learning environment
- Hardware that is both district-provided and personally-owned will be utilized.

**District Provided Hardware-** Mobile devices will be integrated throughout the elementary, middle, and high school, in support of learning and in an effort to maximize the District's investment.

**Bring Your Own Device (BYOD)-** Students will be invited to use personally-owned technology in school, in accordance with District policy.



### **PROFESSIONAL DEVELOPMENT TRAINING AND SUPPORT:**

The implementation of the infrastructure (including the purchase of hardware, software and networking) is only the first step in the technology vision. This plan is intended to put the necessary staff development in place in order to insure that the technology resources and capabilities are used to the maximum use of technology, the following must be provided:

- On-going training must be provided to allow users to learn new software applications
- Opportunity for staff to refine their skills in the use of technology tools and applications within and across the curriculum
- Necessary courses and training staff
- Necessary time and support to experiment and explore new ways to improve teaching and learning through technology
- Appropriate staffing provided to teachers in the form of on-site and off-site training (including BOCES courses, non-BOCES courses and other providers)
- Multimedia learning materials
- Coordination of training by a lead teacher in the division who is responsible for training and educational support

There is a tremendous need for staff training to understand the learning potential of different technologies, as well as for leadership support to help staff identify and use the technologies that will best serve each individual student's needs.

In addition, the technical support requirements (keeping hardware and software running) will be addressed in the plan through the assignment of additional staff and the establishment of new support responsibilities, coupled with a comprehensive support structure. This support structure will start with the training of teachers in basic trouble shooting. Students may also become a formal part of this technical support structure.

### **DIGITAL CONTENT AND CURRICULUM RESOURCES:**

We envision technology integrated across all curricular areas in order to:

- Actively engage students in learning
- Address individual learning differences; available for 24/7 use
- Support more authentic, research-based, interdisciplinary projects for learning
- Provide access to more current information resources and courses than are available in the division through traditional means
- Provide students and teachers a means to collaborate on learning projects and lesson with others around the world
- Meet the higher achievement requirements of the New York State Standards and Frameworks
- Use computers and networking technology to search out, analyze, graphically organize and present information in multimedia format to various audiences, including other students and teachers in the school, as well as students and adults in the global community
- Support the application of higher level thinking and decision-making skills



## 5.0 Current Technological Environment

### Information Technology Department

The South Colonie School District currently has an Information Technology Department which performs administrative and business functions. The Information Technology Department uses Windows Networking Configuration and Server Virtualization. Those many functions include: payroll, transportation, student scheduling, budgetary accounting and textbook accounting. Other functions include electronic document management, New York State data warehousing and data collection integrity and storage.

Instructional Computing—The South Colonie School District currently uses computers at the levels listed below for instructional applications:

Each of the 5 elementary schools has:

- Chromebook Carts/ Tech Tubs with 200 chromebooks
- A computer lab for CAI—24 computers
- An open access lab with 24 Ipads, LCD projector/ Apple TV/ Wifi
- A computer in each classroom—130 computers
- Computers in the library for student use and library automation—10 computers
- Computers for administrative and secretarial use—5 computers
- Computers for Special Education-6
- Computers for reading-2

Total = 1515

Each middle school has:

- Chromebook Carts/Tech tubs with 675 Chromebooks (Lisha Kill) and 800 Chromebooks (Sand Creek)
- A computer lab for CAI—52 computers
- A computer cart for foreign language—30 computers (Dell Chromebooks)
- A computer lab(s) for technology—25-50 computers
- A computer lab for computer education—28 Dell Chromebook computers
- A open access computer lab(s)—25-50 computers
- A open access mobile computer lab(s)—150 Chromebook computers (5 carts per building)
- Classroom computers for 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grade teachers—40 computers
- Computers in the library for student use and library automation—14 computers
- Computers for administrative and secretarial use—10 computers
- Computers for Special Education-20
- Computers for reading-8

Total =2379

The high school has:

- A computer lab in the library for student use—48 computers
- A computer lab for Foreign Language—28 computers
- **1:1 Chromebook distribution to grades 9-12 -1700 Dell Chromebooks**
- A computer lab for Science use—24 laptop computers
- A IMac computer lab for Art – 24 computers & 28 Apple iPads
- Five labs for technology use (CAD, Computer Graphics, A+ Certification)—135 computers
- Computers for administrative and secretarial use-25 computers
- Computers for Special Education-20
- A computer in each classroom-70

Total= 2182

Total Computers ≈ 6076  
Total Servers ≈ 33



## **6.0 Technology Goals (2018–2021)**

Our technology goals for the time period 2018 to 2021 are:

- To utilize our comprehensive technology infrastructure that will provide widespread access and connectivity for students and teachers within the electronic learning community.
- To provide on-going staff development that will help teachers and other staff to use technology tools and resources in ways that will provide the maximum educational benefit.
- To insure that technology is integrated into the curriculum and instructional activities as an integral part of the mission.

The objectives for accomplishing these goals include the following, for the school year time period–July 1 to June 30 of each school year:

### **2010/2011**

- Budget and improve building infrastructure
- Make application for E-Rate discount on all eligible components
- Purchase hardware for networks
- Purchase servers and workstations as necessary
- Initiate training for staff, based on staff survey data
- Extend Internet use
- Continue existing multimedia technology projects
- Implement the K-12 Performance Indicators for students in Technology
- Address full-time staffing requirements
- Upgrade infrastructure to fiber optic network
- Utilized Web 2.0 tools including Google Applications

### **2011/2012**

- Identify new computer workstation requirements, and establish workstation standards
- Continue training of staff, with focus on integration of technology into the curriculum
- Establish a strong focus on Math, Science and Technology Standards, and identify where technology can support the standards across all areas
- Continued to develop K-12 performance indicators for students in Technology
- Utilized Web 2.0 tools including Google Applications

### **2012/2013**

- Continue deployment process of technology to insure equity, while addressing the highest priority educational needs of the division
- Continue staff development
- Initiate evaluation design to assess technology impact
- Assess technology and educational trends, and revise technology plan to address emerging needs
- Utilized Web 2.0 tools including Google Applications



### **2013-2014**

- Continue deployment of WIFI to increase access for students and staff
- Research and recommend a new Student Information System (SIS)
- Provide staff training on the use of Google Docs, Ipads and Dropbox

### **2014-2015**

- Initial implementation of ASPEN Parent Portal and SIS
- Secure, filtered wireless access to a District-wide network, in accordance with federal law and Board of Education policy. The District carefully filters all content accessed through the District's network.
- The District will expand the number of mobile devices used within the schools to increase student access to digital content and curriculum resources.
- Expansion of Google Apps for Education
- Propose recommendations for new Board of Education policies related to BYOD- use of personal technology.

### **2015-2016**

- Full implementation of ASPEN Parent Portal and SIS
- Initial implementation of BYOD- use of personal technology in accordance with Board of Education policy.
- 1:1 Chromebook pilot at CCHS for Advanced History and English 9 students
- Expansion of Google Apps Classroom offerings for staff and students
- Begin development of Smart Schools Bond Act proposal and spending plan
- Review of District Technology K-12 Performance Standards
- Survey of parents, students, staff and community regarding the District website
- Survey of students regarding Internet connectivity and device availability

### **2016-2017**

- Continued implementation of ASPEN Parent Portal
- Curriculum uses of ASPEN will be explored
- Campus-wide WIFI
- Creation of *Summer Academy for Educators* to formalize technology course offerings. (summer 2017)
- 1:1 Chromebook expansion to all 9<sup>th</sup> and 10<sup>th</sup> graders
- Expansion of Google Apps Classroom offerings for staff and students
- Transition to Gmail
- Video conferencing and lesson recording initial rollout
- Overhaul and redesign of District website
- Begin security upgrades including cameras. (available on mobile app for restricted staff use)
- Review District Technology Performance Standards at all levels

### **2017-2018**

- Full implementation of ASPEN Learning Management System
- Redesign of District website completed
- Expansion of Google Apps Classroom offerings for staff and students
- 1:1 Chromebook expansion to all 9<sup>th</sup> and 10<sup>th</sup> graders and 11<sup>th</sup> graders
- Expansion of Video conferencing and lesson recording using MX800 and cameras
- Distance Learning Courses offered
- Continue security upgrades to include keyless entry points
- Updated District Technology Performance Standards implemented

### **2018-2019**

- Full implementation of ASPEN Learning Management System
- Expansion of Google Apps Classroom trainings and offerings for staff and students
- 1:1 Chromebook expansion to all 9<sup>th</sup>, 10<sup>th</sup> graders, 11<sup>th</sup> and 12<sup>th</sup> graders
- Expansion of Video conferencing and lesson recording
- Distance Learning Courses offerings expanded
- Continue security upgrades to include keyless entry points at all buildings
- Increase blended learning, credit recovery and online course offerings (via Edmentum)
- Expand digital literacy profiles for K-4, 5-8 students
- CBT Expansion for grades 3,4 and 6,7



- Update Disaster Recovery Plan
- Pilot Student Help Desk

### **2019-2020**

- Full implementation of ASPEN Learning Management System
- Expansion of Google Apps Classroom trainings and offerings for staff and students
- 1:1 Chromebook expansion to all 9<sup>th</sup>, 10<sup>th</sup> graders, 11<sup>th</sup> and 12<sup>th</sup> graders
- Continue security upgrades to include keyless entry points at all buildings
- Increase blended learning, credit recovery and online course offerings (via Edmentum)
- Expand digital literacy profiles for K-4, 5-8 students
- CBT Expansion for grades 3-8
- Full implementation of Disaster Recovery Plan
- Student Help Desk fully staffed

### **2020-2021**

- Full implementation of ASPEN Learning Management System
- Expansion of Google Apps Classroom trainings and offerings for staff and students
- 1:1 Chromebook expansion to all 9<sup>th</sup>, 10<sup>th</sup> graders, 11<sup>th</sup> and 12<sup>th</sup> graders
- Expansion of Video conferencing and lesson recording
- Distance Learning Courses offerings expanded
- Continue security upgrades to include keyless entry points at all buildings
- Increase blended learning, credit recovery and online course offerings (via Edmentum)
- Expand digital literacy profiles for K-4, 5-8 students
- CBT Expansion for grades 3-8
- Full implementation of Disaster Recovery Plan
- Student Help Desk fully staffed

## **7.0 Integration of District Student Performance Indicators**

In November of 2007, the South Colonie School District embarked on writing Student Performance Indicators for technology for grades K-12. This was the first step leading to the long term goal of implementing district wide technology performance standards. Listed below are those performance indicators identifying what students need to know, understand, and be able to do with the tool of technology grades K-12. It should be noted that many of these ideas are drawn from the International Society of Technology Education Standards (ISTE). These will be reviewed during the 2018-2019 school year for updated implementation in 2019-2020.

### **Grade K**

#### **Basic Operations and Concepts**

##### **Input/Output Devices**

- Use mouse and keyboard to navigate basic software programs with support

#### **Social and Ethical Issues**

##### **Safety and Ethics**

- Practice responsible use of technology systems and software through learning:
- Basic Rules





## **Grade 1**

### Basic Operations and Concepts

#### Input/Output Devices

- Use mouse and keyboard to navigate basic software programs with support
- Use printer to print a basic document

### Productivity tools

#### Word Processing

- Use word processing programs to create a basic document

### Social and Ethical Issues

#### Safety and Ethics

Practice responsible use of technology systems and software through learning: Basic Rules

## **Grade 2**

### Basic Operations and Concepts

#### Input/Output Devices

- Use mouse and keyboard to navigate basic software programs with support
- Use printer to print basic documents

#### Keyboarding

- Use keyboarding software programs to introduce keyboarding skills

### Productivity Tools

#### Word Processing

- Use word processing programs to create a basic document

#### Publishing

- Use publishing programs to create a simple project (i.e. greeting card)

#### Multimedia

- Use multimedia programs to introduce PowerPoint basics

### Technology Research Tools

#### Internet Use





- Use pre-selected internet sites

### Social and Ethical Issues

#### Safety and Ethics

Practice responsible use of technology systems and software through learning:  
Basic Rules

### **Grade 3**

### Basic Operations and Concepts

#### Input/Output Devices

- Use mouse and keyboard to navigate software programs
- Use printer to print documents

#### Keyboarding

- Use keyboarding software programs to practice keyboarding skills

### Productivity Tools

#### Word Processing

- Use word processing programs to:
  - create basic documents
  - introduce basic toolbar functions (i.e. fonts, centering, underlining)
  - edit basic documents (i.e. spell check, grammar check)

#### Publishing

- Use publishing programs to create projects (i.e. greeting card, certificate, flyer, announcement, poster)

#### Multimedia

- Use multimedia programs to practice PowerPoint basics

### Research Tools

#### Internet Use

- Use pre-selected internet sites
- Practice typing pre-selected web addresses

### Social and Ethical Issues

#### Safety and Ethics

Practice responsible use of technology systems and software through learning:  
Basic Rules



## Grade 4

### Basic Operations and Concepts

#### Input/Output Devices

- Use mouse and keyboard to navigate software programs
- Use printer to print documents

#### Keyboarding

- Use keyboarding software programs to practice keyboarding skills

### Productivity Tools

#### Word Processing

- Use word processing programs to:
  - create documents and a written report including pictures
  - use basic toolbar functions (i.e. fonts, centering, underlining)
  - edit documents (i.e. spell check, grammar check)

#### Publishing

- Use publishing programs to create projects (i.e. greeting card, certificate, flyer, announcement, poster)

#### Multimedia

- Use multimedia programs to practice PowerPoint basics

### Research Tools

#### Internet Use

- Use pre-selected internet sites
- Practice typing pre-selected web addresses
- Engage in research using pre-selected web sites

### Social and Ethical Issues

#### Safety and Ethics

Practice responsible use of technology systems and software through learning:

Basic Rules

Personal Security

Plagiarism

## Grade 5

### Basic Operations and Concepts



## South Colonie School District

### Input/Output Devices

- Use mouse and keyboard to navigate software programs
- Use printer to print documents
- Use digital camera

### Keyboarding

- Use keyboarding software programs to master keyboarding skills

## Productivity Tools

### Word Processing

- Use word processing programs to:
  - create documents including letters and bibliographies
  - use basic toolbar functions
  - edit documents (i.e. spell check, grammar check)

### Publishing

- Use publishing programs to create projects incorporating borders and clipart

### Multimedia

- Use multimedia programs to master PowerPoint basics
- Create a 3-4 slide presentation that includes background, color and clipart

## Research Tools

### Internet Use

- Practice basic internet toolbar functions
- Use pre-selected internet sites
- Practice typing pre-selected web addresses

## Social and Ethical Issues

### Safety and Ethics

Practice responsible use of technology systems and software through learning:

Basic Rules

Personal Security

Plagiarism

## **Grade 6**

## Basic Operations and Concepts

### Input/Output Devices

- Use mouse and keyboard to navigate software programs
- Use printer to print documents
- Use digital camera, CD burner and scanner

### Keyboarding

- Use keyboarding software programs to master keyboarding skills



## Productivity Tools

### Word Processing

Use word processing programs to:

- create documents including letters, bibliographies, lab reports
- master basic toolbar functions
- edit documents (i.e. spell check, grammar check)

### Publishing

- Use publishing programs to create projects incorporating borders and clipart

### Multimedia

- Use multimedia programs to master PowerPoint basics
- Create a 6 slide presentation that includes background, color, clipart, sound, animation and slide transitions

## Productivity Tools

### Graphing

- Use graphing programs and internet sites to create a bar graph

## Research Tools

### Internet Use

- Master basic internet toolbar functions
- Engage in research using pre-selected web sites and search engines

## Social and Ethical Issues

### Safety and Ethics

Practice responsible use of technology systems and software through learning:

Basic Rules

Personal Security

Plagiarism

## **Grade 7**

## Basic Operations and Concepts

### Input/Output Devices

- Use mouse and keyboard to navigate software programs
- Use printer to print documents
- Use digital camera, CD burner, scanner, LCD projector

### Keyboarding

- Use keyboarding software programs to master keyboarding skills



Productivity Tools

Word Processing

- Use word processing programs to:
- create documents (letters, bibliographies, lab reports, envelopes)
- edit documents (i.e. spell check, grammar check)

Publishing

- Use publishing programs to create projects (i.e. newspapers, recipes)
- Multimedia
- Create an advanced presentation incorporating sound and hyperlinks



### Graphing

- Use graphing programs and internet sites to create line and pie graphs

### Research Tools

#### Internet Use

- Engage in research using a variety of search engines and databases

### Communication Tools

Practice professional electronic correspondence

### Social and Ethical Issues

#### Safety and Ethics

Practice responsible use of technology systems and software through learning:

Personal Security

Plagiarism

Appropriate use of blogs, chat rooms, etc.

## **Grade 8**

### Basic Operations and Concepts

#### Input/Output Devices

- Use mouse and keyboard to navigate software programs
- Use printer to print documents
- Use digital camera, CD burner, scanner, LCD projector

#### Keyboarding

- Use keyboarding software programs to master keyboarding skills

### Productivity Tools

#### Word Processing

- Use word processing programs to:
  - create documents (compositions, résumé)
  - edit documents (i.e. spell check, grammar check, tense check)

#### Publishing

- Use publishing programs to create projects (i.e. résumé, business cards, brochures)

#### Multimedia

- Create an advanced presentation incorporating input devices, sound and hyperlinks



Graphing

- Use graphing programs and internet sites to create a variety of graphs

Research Tools

Internet Use

- Engage in research using a variety of search engines and databases

Communication Tools

Practice professional electronic correspondence

Participate in video conferencing

Social and Ethical Issues

Safety and Ethics

Practice responsible use of technology systems and software through learning:

Personal Security

Identity theft

Plagiarism

Appropriate use of blogs, chat rooms, etc.

**Grades 9–12**

Basic Operations and Concepts

Make informed choices among technology systems, resources and services

Productivity and Communication Tools

Use technology tools and resources for managing and communicating personal/professional information (i.e. finances, schedules, addresses, purchases, correspondence)

Research Tools

Evaluate technology options including distance and distributed education for lifelong learning

Research and Communication Tools

Use technology tools for research, information analysis, problem solving, and decision making in content learning



Communication, Research and Problem Solving/Decision Making Tools

Use online resources for collaboration, research, publications, communications and productivity

Collaborate with peers, experts and others to contribute to a content-related knowledge base by using technology to compile, synthesize, propose and disseminate models and creative works

Social and Ethical Issues

Identify capabilities and limitations of contemporary and emerging technology to address personal and workplace needs

Analyze advantages and disadvantages of widespread use and reliance of technology in the workplace and in society as a whole

Demonstrate and advocate legal and ethical behaviors among peers, family and community regarding the use of technology and information





## **8.0 Integration into the Curriculum**

Our school district is focusing on the New York State Standards and Frameworks. Our curriculum committees at all grade levels are reviewing the Standards and Frameworks to identify where technology can provide significant benefits to the teaching and learning process. We envision technology use across all the disciplines. Students will use technology to access information from the Internet, prepare a variety of reports in textual and multimedia formats, and present information to a variety of audiences both in the division and beyond. We envision that students will be using a range of technology tools (e-mail and web browsers) to access, analyze and present information across all disciplines. Technology will play a crucial role in English/Language Arts, Science, Social Studies, Mathematics, as well as the other disciplines. We will be training our teachers in each subject area to use technology both as a teaching tool and as a student learning tool.

The ultimate goal is the improvement of student learning. With technology, teacher-planning resources will be more available, including all curriculum materials and technology enhances lessons.

Technology tools are viewed as a fundamental component of our teaching and learning environment. In addition to the use of technology tools for accessing, researching, communicating and presenting information, technology tools can also be used for fundamental classroom activities such as note taking.

### **Colonie Central High School:**

#### **Guidance Department:**

- Naviance

#### **Foreign Language Department**

- Utilization of Rosetta Stone/Tell Me More software in computer labs with French and Spanish Classes
- Use of Google Classroom as part of Chromebook 1:1 Initiative

#### **Technology Department**

- CAD, Computer Graphics, TV Production, CISCO Networking, A+ Certification, Web Site Design classes
- Use of Google Classroom as part of Chromebook 1:1 Initiative

#### **Mathematic Department**

- Utilization of Apple TV and Ipad technology to demonstrate mathematics concepts and skills
- Use of Google Classroom as part of Chromebook 1:1 Initiative
- Problematic- HS math software for problem development

#### **Information Technology Strand Offerings**

- Computer Applications – Excel, Access, Internet Technologies (Google Apps), JAVA programming

#### **Science Department**

- Use of Google Classroom as part of Chromebook 1:1 Initiative
- Installed new Dell PC's in Science Rooms for laboratory activities
- Test Wizard (previously network based and is now web-based) - Regents Science



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### **Art Department**

- Installed Macintosh Mobile Lab utilizing Adobe CS6 software for classes
- Toon Boom- Animation Software
- Use of Google Classroom as part of Chromebook 1:1 Initiative

### **English Department**

- Utilize computer technology to assist in the teaching of selected English courses (i.e. journalism)
- Use of Google Classroom as part of Chromebook 1:1 Initiative
- Creation of English Share Point collaboration folder

### **Social Studies Department**

- Installed computer workstations with laptops in all social studies classrooms to utilize with LCD projectors for easy Internet access
- Use of Google Classroom as part of Chromebook 1:1 Initiative

### **Regents Lab**

- Utilization of Grad Point software

### **All Departments**

- Offer Google Applications to all departments as a collaborative tool

### **Middle Schools:**

- Use of Google Classroom as part of Chromebook 1:1 Initiative
- Computer Assisted Instruction for students in grades 5-8
- Computer Education for students in grades 7-8 (see section 7.0)
- Mavis Beacon Keyboarding program
- Foreign Language – Rosetta Stone (offered online access at home in 2015)
- SMART Boards and wireless slates
- Technology classes use CAD/Graphics software
- Open Access rooms for computer integration
- Use Chromebook carts in Science and English classrooms
- Offer Google Applications to all teachers as a collaborative tool
- Discovery Education - Science Techbook and Streaming Plus (MS)
- Test Wizard (previously network based and is now web-based) - Regents Science
- Castle Learning - Gr. 5-12 in all disciplines
- iReady - 5-8 pilot in Math and ELA
- Successmaker - I think the time has come to move past a network-based program
- Think Central- (HMH resource for Math and Science) - included in adoption that expires in August 2018
- ConnectED- (Glencoe-McGraw Hill on-line resource for 7-9 Math) - included in adoption that expires in June 2019
- Use of Cisco MX 800 device for virtual field trips, recording of instruction and distance learning opportunities.

### **Elementary Schools:**

- Computer Assisted Instruction for students in grades 2-4 (iReady)
- SMART Boards and wireless slates
- Open Access rooms for computer integration
- Use of Apple Ipads for presentations, collaboration and writing assignments



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- Offer Google Applications to all teachers as a collaborative tool
- Raz Kids (reading)
- Reading A-Z
- Reading Plus

### **Community Center Programs:**

- Use of Google Classroom as part of Chromebook 1:1 Initiative
- Utilization of Grad Point Software
- Use of Edmentum Software for online learning

### **District Level:**

- Google Applications initiative for students and teachers as a collaboration tool
- GoGuardian software for student device management
- Microsoft Office 2013 Suite – Word, PowerPoint, Excel, Publisher, Outlook, Moviemaker
- ASPEN- Student Information System (SIS) in ALL classrooms
- Electronic grading and period by period attendance
- Use of ASPEN parent portal for real-time communication, gradebook and attendance access for staff, students and family.
- TestWiz - district-wide
- Castle Learning - Gr. 5-12 in all disciplines

## **9.0 Staff Development**

Staff development is a critical component of our technology planning. We are committed to ongoing training for all staff to ensure effective use of technology tools, and to help teachers to focus on integration into the curriculum.

The goal of technology-related professional development is to provide an environment where educators will become competent in the use of technology for support of the curriculum and the management of instruction. To provide a sound basis for training, the following statements describe the district's expectations for educator knowledge and application of technology:

For Teachers and Administrators:

- Demonstrate a sound understanding of technology operations and concepts.
- Plan and design effective learning environments and experiences supported by technology.
- Implement curriculum plans that include methods and strategies for use of technology to maximize student learning.
- Apply technology to facilitate a variety of effective assessment and evaluation strategies.
- Use technology to enhance their productivity and professional practice.
- Understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice.
- Provide suitable assistive devices for students who need them.
- Use technology to collect, store, and analyze student performance data.

The South Colonie School District will continue to develop staff proficiency in the use of the



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keyboard, mouse, files and networking. In addition, all staff will receive training in basic tool applications such as following:

### Courses in tool software

- Word Processing
- Excel Spreadsheet
- PowerPoint
- Moviemaker
- Digital Photography
- Gmail
- Go Guardian
- SMARTBoard
- Effective use of iPads in the classroom
- Google Classroom
- ASPEN Pages and Gradebook
- Google Apps

Beyond this training, we will provide on-going training to our staff in the integration of technology into their curriculum areas. We will also work to link technology with the Standards and Frameworks.



## 10.0 Projected Budget, Funding Sources and Schedule

The overall goal of this effort is to plan, design and implement technology that would support and improve teaching and learning and better prepare students in the division with the necessary information technology skills for the 21<sup>st</sup> century.

### Budget Components and Conceptual Infrastructure Design

The overall goal of this effort is to plan, design and implement technology that would improve teaching and learning and better prepare students with the necessary information technology skills for the 21<sup>st</sup> century.

In addition, South Colonie's educational requirement will be supported through this technology infrastructure. The design includes the following:

**Stability**—Creating the technology infrastructure once and preserving investment in infrastructure through application of the best design and management practices in the information technology industry.

**Flexibility**—Providing for expandability and scalability of the design in order to address new or undefined needs.

**Manageability**—Adhering to industry standards and committing to controlling costs through centralized management and control techniques.

**Performance**—Applying capacity planning and bandwidth allocation techniques to support present and future application including Internet, video and multimedia interactive technology. The network supports 100MB and 1000MB switched Ethernet, as well as positioning the Department to support ATM and Gigabit (1,000Mb) Ethernet services across the network.

**Cost Effectiveness**—Integrating voice, video and data networking, where feasible, as well as focusing all technology investments on the critical need for all technology to support the teaching and learning environment.

Support of the entire education program, including instructional and administrative applications, through a comprehensive technology infrastructure. This design provides a comprehensive infrastructure that will position South Colonie well into the 21<sup>st</sup> century, and allow access to the full range of technology capabilities and resources that will be necessary for us to remain effective in educating its students.



### **10.1 Network Infrastructure Components (Data, Video and Voice Cabling)**

The conceptual design for the network infrastructure envisioned connections throughout each building, with access to all the buildings in the district. This design supports the vision of an interconnected learning community.

The infrastructure design includes multiple network connections in the libraries and lab spaces. Connections are also be provided in the offices and other common building areas such as the cafeteria. The network topology is an Ethernet star design with multiple wiring closets all coming back to a central wiring closet via a high-speed fiber backbone between the closets. The network backbone is now entirely gigabit. This design has been expanded to include additional switching components. This growth option allows for higher levels of use in areas such as the library or lab or in separate classrooms that have high bandwidth demand. Category 6 cabling supports the connections from the wiring closets to the classrooms.

### **10.2 Electrical Wiring Infrastructure Components**

Typically, technology deployment requires additional electrical outlets in each classroom and instructional space. In addition, depending on the level of service already in the building, the addition of computer and other technology will necessitate a power service upgrade to provide adequate capacity. Electrical requirements are built into this budget as a part of the building construction cost.

### **10.3 Server Infrastructure Components**

The server infrastructure will evolve over time, based on needs, as well as available servers. Windows Server 2008 is the network operating system. Server 2008 is a powerful solution that is particularly adapted to support schools and Internet related applications, as well as file sharing and print sharing. The District depends heavily on **server virtualization**. There are physical servers housed in the network centers at the high school and the district office for some of the applications. There are also virtualized servers on several of our ESX Servers to provide other applications. Functions that are provided by our physical and virtual servers include:

- File sharing
- Shared printers
- Shared applications
- CD ROM, DVD and video servers
- Electronic mail on site
- Web hosting for the division's Intranet and public web site.
- Security and proxy list services

### **10.4 Workstation Infrastructure Components**

Standards for workstations and software are important to insure a high level of consistent support and to minimize the total cost of ownership.



## **10.5 Furniture and Renovation Components**

Furniture to locate new workstations in classrooms and other sites within the building is extremely important if the technology is to be used. Permanent desk units as well as portable carts and other units are also important to maximize the extent of use. Furniture is built into the budget for the labs, library media centers and the classrooms.

## **10.6 Software Infrastructure Components**

There are five major software areas:

### **10.6.1 Network Operating System, Workstation Operating Systems and Other System Management Software**

As noted earlier, the best choice for network operating system, from a price, support and feature standpoint, is Server 2008. Server 2008 will give many LAN and Internet capabilities.

At the workstation level, all machines should be installed with Windows 2013.

In addition, system applications (such as backup, virus protection, overall network management software, and firewall/proxy services) need to be addressed as a part of Windows 2013 on the server.

### **10.6.2 Tool application software**

Tool applications need to be available on all workstations. It was recommended that South Colonie standardize on at least a minimum teacher toolkit that would support the function of word processing, database, spreadsheet, presentation/graphics, electronic mail and web browser. Because of the cross platform compatibility and support problems, standards are particularly important. Microsoft Office was identified as the standard software for the staff and students. Because of the integration of Office with the Microsoft operating system and now the Microsoft web browser, Office is likely to offer a more consistent approach than any other product. Specialized tool applications such as CAD or graphics applications will also need to be identified. The Technology Committee has already identified some of this software.



#### 10.6.3 Curriculum related software and media

In addition to tool applications, South Colonie will continue to use a variety of curriculum specific applications and CD-ROM resources. South Colonie will need to identify tool software and curriculum specific software that supports the State Standards and Frameworks.

10.6.4 Administrative applications for student information and finance management will be accomplished by the Information Technology staff.

### **10.7 Peripheral Components**

The plan calls for peripherals, including black and white and color printers (networked laser and ink jet), 3D printers, plotters, scanners, digital cameras, science probes, and MIDI devices for music, Smart Boards, LCD projectors, television sets, DVD's and VCR's. These peripheral devices are critical to the effective use of technology in the classroom, and their use as an integral part of instruction. Special assistive devices for special needs students are another area of peripherals, although these are partially built into the budget with additional support from special education funding.





## 11.0 Evaluation

We have developed both formative and summative evaluation components of our plan.

Our formative component includes examining the timeliness and completeness of implementation of all components. For this component, we will review the completion of each objective targeted for that year. We will also survey staff and students each year in terms of their skill levels and use of technology to identify areas for improvement.

For the summative evaluation we will be looking at the impact our technology has had on teaching and learning. The summative evaluation design is intended to answer the question:

*Has the implementation of technology in the school improved and changed the level of learning for students?*

We have started to collect baseline information about our student and teacher use of technology across all grade levels and subject areas. This information includes the following: levels of technology access in the school, levels of technology use, and perceptions of staff/students toward technology, perceptions of the impact of technology on student learning, student achievement data including local, state and national test data. A critical measure we expect to use will be our student portfolios and the new Statewide Regents exams that are linked to the Standards and Frameworks.

The evaluation design will collect a variety of formative or process data to answer the implementation questions. These implementation questions include identifying what was accomplished and when. Summative or impact evaluation will use a variety of outcome measures, including:

- State tests
- Assess student skill of technology
- Dropout rates
- Attendance
- Suspension rates
- Student activity on the system
- Student time on the system
- Student results within the Pearson software or replacement iReady
- Surveys of teacher and students
- Effective schools data
- Teacher survey
- Post-graduation data 3 years of data
- Entrant survey for teachers and students
- Community survey
- Exit survey for each training session
- Norm referenced test instruments –item analysis
- PSAT test for all students

The Technology Committee will continue meeting regularly to discuss and review the implementation process and will provide feedback on the implementation of the plan.



## 12.0 Appendices

### 12.1 History of Technology in South Colonie School District

#### *In the 1980's*

- The District implemented a Computer Assisted Instruction (CAI) program. This specialized software was utilized for Mathematics and ELA instruction in grades K-10. It is more commonly referred to as Integrated Learning Package (ILP). This software was developed by CCC (Computer Curriculum Corporation).
- The District experienced its first PCs when it purchased 6 IBM PCs (8086 DOS Technology).
- The District offered Computer Programming on RadioShack TRS 80s in lab environments.

#### *In the 1990's*

- The District purchased 2 labs of Compaq Computers for Computer Programming at the High School
- The District purchased Windows 95 PCs from Dell
- The District purchased Windows 98 PCs from Dell

#### *In the year 1999-2000*

- Installed the infrastructure for the South Colonie Network. Included in this set up were classroom connections (nodes), switches and routers. The connectivity utilized ISDN lines.

#### *In the year 2002-2003*

- Changed the connectivity from ISDN lines to T-1's.
- Implemented South Colonie Data Warehouse
- Deployed the first South Colonie School District website

#### *In the year 2003-2004*

- Implemented CISCO Networking Academy
- Installed separate server for Technology Department
- Installed first South Colonie Web Server
- Created 1 South Colonie domain
- Developed new Computer Use Policies
- Completed electronic grading for all staff 5-12
- Implemented electronic attendance for the high school
- Transferred SIS system to SQL Server application

#### *In the year 2004-2005*

- Implemented the AIMS Database
- Installed filtering software on the Exchange Server
- Installed Symantec Anti-Virus Software



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- Upgrade core switch to Gigabyte
- Implemented Library Automation System
- Implemented Capital Project Initiative to add notes and electric power
- Implemented K-4 report card

### *In the year 2005-2006*

- Implemented fiber-optic network for connectivity
- Implemented Microsoft SUS
- Completed the first cycle of New York State Data Warehouse

### *In the year 2006-2007*

- Purchased inserter/folder machine
- Implemented server virtualization/disaster recovery
- Implemented new health services database
- Implemented Nova Net software
- Installed first SMARTBoards
- Wrote draft performance Indicators for Information Technology

### *In the year 2007-2008*

- Installed 24 Dell laptops in physics department
- Installed 16 Gigabyte switches at the High School
- Installed 10 CISCO Switches for CISCO Networking Academy
- Began the upgrade of Microsoft Office 2000 to the Microsoft Office 2007 Suite
- Implemented VADIR Web Software
- Implemented New Packateer
- Implemented Barracuda Web Filter
- Purchased 18 more SMART Boards

### *In the year 2008-2009*

- Installed Gigabyte switches at Lisha Kill and Sand Creek Middle Schools
- Set up webmail system
- Set up open management system
- Installed windows Server 2008
- Installed Windows SQL 2008
- Set up DFS file Management System
- Implemented EDMS System
- Installed 100 new Dell computers in the Tech rooms at the high school (paid by HVCC)

### *In the year 2017-2018*

- Implemented new South Colonie Website



## **12.2 Technology Support for Special Education**

In accordance with the federal regulations included in the Individuals with Disabilities Education Act 1997 (IDEA) and the New York State Regulations of the Commissioner of Education, all students identified as having an educational disability and who qualify for special education services must be provided with an Individualized Education Program (IEP). This document is developed and implemented by the Committee on Special Education.

As appropriate, an IEP must include a diverse amount of information. This information may include:

- The child's name, personal data, and area of disability
- The child's current abilities, needs and evaluation results
- Goals and objectives for the school year and reporting of progress
- Special equipment required by the child
- Special education services or programs recommended
- Testing accommodations or modifications if required
- Program and curriculum accommodations or modifications if required
- Supports for the child's teachers needed to implement the IEP
- Assistive technology as appropriate
- Transition planning and services
- Location and setting of where services will be provided

With local initiative, the South Colonie School District has purchased an IEP database called CLEARTRACK/ IEP DIRECT that allows special education teachers, school psychologists, administrators and other service providers to enter data and updates. This information is synthesized to generate the draft Individualized Education Plan, which is not finalized until reviewed by the Committee on Special Education and, subsequently, the Board of Education. As legal requirements increase and/or are amended regarding the mandated components of the IEP, the use of the SCSD Special Education Program provides a common format through which all essential information is articulated.

The development of the IEP is a process involving multiple participants such as general and special education teachers, related service providers, parents and, when appropriate, the student. The use of the SCSD Special Education Program facilitates this process by providing the necessary tools and Infrastructure that allows team members to coordinate the collection of information. Specific activities include:

- The CSE chairperson and/or team member enters data for newly-referred students or those for whom reviews are being conducted.
- Special education teachers, related service providers, or school psychologists update information and goals as required.
- Parents are able to review draft documents and changes can be assimilated into the draft IEP as a work in progress.
- Final changes to the IEP are easily made at a CSE meeting and finalized copies can be more readily disseminated to parents and teachers.



- All participants are able to view the developing IEP and enter information specific to their area of expertise or service delivery.
- Transition between levels (elementary, middle and high school) is facilitated.
- Reports regarding progress toward annual goals are easily completed and provided to parents.
- Key dates for annual reviews, triennial examinations, as well as program start and end dates, are readily available and organized.
- Chapter 408 regulations involving access to the IEP by teachers/therapists working with the child can be implemented electronically while maintaining confidentiality and significantly reducing staff time and fiscal costs.
- Mandated SED reports (PD JA, PD 8, etc.) can be generated.

The current South Colonie Special Education Program represents a significant improvement over previous methods for developing IEPs in the district. The continued infusion of technology into the special education process is a proactive measure to more readily benefit students, parents and the professional staff with a critical need for ready access to essential instructional information.

### **12.3 Acceptable Use Policies**

The Computer Use Policy (CUP) defines the acceptable use of District networked and standalone hardware and software. A printed hard copy of this policy is available in the District Office as well as in the principal's office of each building. It is also posted on the South Colonie School District website. This policy also includes a specific listing of appropriate user behaviors that apply to all student and staff users of District network resources. It is important for all users of the District's information technology to review and understand this policy and any regulations that apply to their work location. (see policies *4526.1*, *4526.1-R*, *4526.2*, *4526.3*)

The following is a list of specific system-use requirements that apply to all users of system-wide networked resources regardless of building, platform, operating system, and application.

1. Only District Technology Staff is authorized to make hardware or software configuration changes to any networked or stand-alone resources. These changes include:
  - The installation or de-installation of software applications.
  - The installation or de-installation of workstation or network hardware.
  - The removal, relocation, addition, or reconfiguration of any network element.
2. New software installations will not be made until the proposed software:
  - Has been recommended by content area experts.
  - Is approved by district Information Technology staff for network compatibility.
  - Is previewed by content area experts and district Information Technology staff.



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3. Subject to the software review process, applications and other executable files may be installed on the server or workstation hard drive. Once installed, they will not be removed without additional software review.
4. The district Information Technology staff will identify network software, hardware, and other devices that will be supported district-wide. This list will be updated and published as necessary.
5. Users will be assigned network home (H) directories in which to store files created on the district system. These directories will be limited in size subject to the nature of their use. This is the only location where users should store data that users expect to be backed up by district Information Technology staff. Additional storage space will be available via their Google Drive accounts which will be unlimited.
6. Files created and stored on the district system are subject to review by authorized district staff. These documents may also be subject to access as a result of formal Freedom of Information Law (FOIL) requests and other legally enforceable access requests.
7. Unauthorized access to any part of the district system is strictly prohibited and may result in the loss of system privileges, district-imposed discipline, or legal action.
8. Only the files stored on district servers may be backed up by district Information Technology staff. Since storage space is limited, users will be required to purge their files on a regular basis. With notice, district Information Technology staff may also remove files on a regular basis. An archiving option will be developed and offered to each user as files are purged from the respective "H" directory.
9. Users will not access computer games from any source unless used as a part of teacher supervised instruction or activity authorized by the building principal.
10. Only screen savers and wallpaper included in the current workstation operating system can be installed on the desktop. Unauthorized screen savers and wallpaper will be removed from a workstation before any maintenance or troubleshooting work is done on it.
11. Student and staff access to the district network for any purpose will be password controlled.



12. No executable files in any form will be downloaded from the Internet or other outside sources or installed or stored on any district resources. This restriction includes Hot Mail, AOL mail, Instant Messaging, or any other commercial, privately developed, locally developed, or experimental executable file, macro, or application.
13. The district will create and maintain student G-mail accounts for grades 6-12. The district will make G-mail accounts available to staff. Use of G-mail will be limited to that which is available through the district Point Of Presence (POP), which does not allow nor support Hot Mail. The use of any district-supplied G-mail account will be strictly limited to communication in support of the instructional, non-instructional, and administrative work of the district. Since all students do not have equal access to technology outside of school, the instructional application of electronic resources will be supplemental to, and not in lieu of, other district- supplied instructional resources.
14. All users of the district system are specifically prohibited from engaging in the following activities:
  - Sending or displaying offensive messages or pictures; i.e., pornography.
  - Using obscene language.
  - Harassing, insulting or threatening others.
  - Damaging computers, systems, or networks.
  - Downloading or installing unapproved software or hardware.
  - Violating copyright laws and the valid licensed rights of others.
  - Using another user's password.
  - Encrypting or password protecting material stored on the system.
  - Possessing programs used for hacking or stealing passwords.
  - Trespassing in another user's folders, work or files.
  - Intentionally wasting limited resources.
  - Employing the network for non-school related, commercial or other private purposes.
  - Use of an account by anyone other than the account holder.
  - Requesting unnecessary and lengthy material that ties up system resources.

#### Implementation of the District's CUP (Computer Use Policy)

It is important that all users have the opportunity to review, ask questions about, and understand the Computer Use Policy. During each school year, the Computer Use Policy will be reviewed with all staff. Changes will be distributed as it is revised each year. New staff will have the opportunity to review this document and ask questions about its content during staff orientation. In addition, each building principal will review the Computer Use Policy with the students of his or her building as it relates to prohibiting conduct outlined within the district's Code of Conduct.



**12.4 Confidentiality and Security Agreement**

**First Name** \_\_\_\_\_ **Middle Initial** \_\_\_\_\_ **Last Name** \_\_\_\_\_

**Home School/Building** \_\_\_\_\_ **Phone** \_\_\_\_\_ **Job Title** \_\_\_\_\_

Security and confidentiality records, reports, and files are matters of critical importance to the South Colonie School District (SCSD). The purpose of this statement is to clarify your responsibilities as a privileged user of the SCSD Information Technology Services (ITS). Each individual who has privileged access to sensitive, classified, or confidential data and privileged access to ITS configurations is expected to adhere to the security and confidentiality principles stated below.

As a person who has access to such information, you will not:

- Share your password with any person, or permit any other person to access information under your account;
- Permit the unauthorized use of any information in documentation, configuration file, records, reports, and files which are accessed, processed, maintained, or stored by Information Technology Department;
- Seek personal benefit from information that you have acquired as a result of your access to data;
- Disclose the confidential contents of any record, report, or file to any person, except in the conduct of official work assignments;
- Knowingly include a false, inaccurate, or misleading entry in any official non-test record, report, or file;
- Knowingly destroy data from any record, report, or file, except as authorized;
- Remove any documentation, configuration file, record, report, or file from the office where it is maintained, except in the performance of your official duties;
- Cause or assist another person to violate these principles.

Violations of these principles may lead to disciplinary action consistent with applicable personnel policies. Violations can also lead to action under state and federal law pertaining to theft, alteration of public records, or other applicable sections.

Your signature below indicates that you have read, understand, and will comply with these principles.

*Employee Signature* \_\_\_\_\_ *Date* \_\_\_\_\_

**To be completed by IT Director:**

I have reviewed the request and authorize the individual indicated to have access to specified system

IT DIRECTOR SIGNATURE \_\_\_\_\_

DATE: \_\_\_\_\_

TITLE: IT Director





**12.5 Acceptable Use Violations Form**

**ACCEPTABLE USE VIOLATIONS FORM**

Name of school: \_\_\_\_\_

Date of discovery of violation: \_\_\_\_\_

Date of violation if different then discovery date: \_\_\_\_\_

Name(s) of Individuals Involved in the Violation: \_\_\_\_\_

\_\_\_\_\_

Nature of the suspected violation: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Site at which the violation occurred: \_\_\_\_\_

Have student(s) and Parent(s) been notified?  YES  NO (If yes, please attach)

Manner of Notification:  personally notified  
 written notice  
 telephone notice

---

**To be completed by IT Director:**

I have reviewed the request and authorize the investigation of the alleged violation

IT DIRECTOR SIGNATURE \_\_\_\_\_

DATE: \_\_\_\_\_ TITLE: **IT Director** \_\_\_\_\_

Technicians assigned: \_\_\_\_\_

Actions requested: \_\_\_\_\_

\_\_\_\_\_

Date results required: \_\_\_\_\_



## 12.6 Good Password Practices

A secure password is:

1. A combination of letters, numbers and characters that cannot be found in a dictionary and is not a proper noun or foreign word
2. More than 6 characters long (including one from at least 3 of these groups):
  - a. Upper case letters such as A, B, C, etc.
  - b. Lower case letters such as a, b, c, etc.
  - c. Numerals such as 1,2,3, etc. and
  - d. Special characters selected from the following list: period, colon, semi-colon, exclamation point, hyphen, or underscore.
3. Easy to type and remember
4. Not related to your user name in any way
5. Disassociated from personal information about you (your name, children or pet names, occupation, telephone number; address, birth date, etc.)

To assist us in maintaining compliance with this new practice the technicians will be configuring the network to only allow acceptable passwords. This will include the parameters listed above as well as a restriction against using the same password over again. In addition to the recommendations above we would ask you to review some good password practices with your staff.

Secure password practices include:

- If you forget your password, contact the helpdesk (staff) or building CSA (students) and we will reset it for you.
- Do NOT share your password with anyone, (I.e. friends, co-workers, etc.)
- Change your password regularly. (On our PC's if you hold down <ctrl>, <Alt> & <Del> at the same time, there is a change password button that appears on this screen). Especially in you believe someone has found out your password.

It is recommended that passwords need to be changed:

- Staff: at least every 6 months (system will force a change every February)
- High school students: at least every 6 months (system will force a change every September)
- Middle school students: at least every 12 months (system will force a change every September)
- Elementary school students: only when there is an issue.
- Do NOT write your password on a post-it and stick it to your monitor or write it on any part of your computer or desk.
- Do NOT save your password as part of an automatic login script if anyone else has access to the computer you are using.
- If you must write your password down in order to remember it, describe it rather than record it.



## South Colonie School District

- Do NOT leave a computer that is 'logged' in to your account unattended, especially in a public area. Log-out completely if you are leaving for the day, or lock the computer if you are stepping away for a moment.
- Never re-use passwords.
- Never email your password to another user or to yourself.
- Try typing your password before you decide to set it. If your password is too difficult to type you will lock your account with too many incorrect logins.
- Don't use the name of the computer or network as your password.



**12.7 Employee Account Agreement**

**First Name** \_\_\_\_\_ **Middle Initial** \_\_\_\_\_ **Last Name** \_\_\_\_\_

**Home School/Building** \_\_\_\_\_ **Phone** \_\_\_\_\_ **Job Title** \_\_\_\_\_

In order to become a user of the South Colonie Central School District’s telecommunication systems, technology resources, networks, E-Mail and Internet accounts I hereby agree to comply with all District regulations for use of communication and technology as presently in force and as may be amended from time to time. I have read the **South Colonie School District Acceptable Use Policy (CUP)**, the **Staff Use of Telecommunication Systems and Computerized Information Resources Policy**, and the **South Colonie School District Acceptable Use Procedure for Telecommunication Systems and Computerized Information Resources**. I agree to follow the rules contained in these documents. I understand that if I violate the rules my account can be terminated, and I may face other disciplinary action and/or prosecution.

Employee Initials \_\_\_\_\_

In consideration of using the South Colonie School District’s networks resources and in consideration for having access to information contained on them, I hereby release the South Colonie School District, its personnel, and any institutions with which is affiliated, from any and all claims and damages of any nature arising from my use of, or inability to use, the system, but not limited to claims that may arise from the unauthorized use for the system to purchase products or services.

**As a user of SCCSD ITS, I agree not to:**

- Violate the property rights and copyrights in data and computer programs.
- Intentionally or neglectfully destroy or damage users’ data or programs.
- Obtain unauthorized access to and use of an account, and the network facilities for purpose other than that intended.
- Obtain unauthorized access to and use an account, and the networking facilities, for personal or private gain.
- Read or use private files/data without proper authorization.
- Divulge the contents of any database holding personnel and confidential information related to children, parents, or school business operations.
- Attempt, without authorization, to modify computer hardware or system software.
- Use the network to send unsolicited, non-educationally related messages which are offensive, but which consume system resources.
- Fraudulently use another person’s name to send or receive messages.

*Employee Signature* \_\_\_\_\_

*Date* \_\_\_\_\_



**12.8 Network Access Request Form**

**PART 1** (to be completed by employee)

First Name \_\_\_\_\_ Middle Initial \_\_\_\_\_ Last Name \_\_\_\_\_

Home School/Building \_\_\_\_\_ Phone \_\_\_\_\_ Job Title \_\_\_\_\_

Employee Signature \_\_\_\_\_

----- PLEASE RETURN THIS TO ITS HELP DESK, DISTRICT OFFICE -----

**PART 2** (to be completed by ITD)

User Login \_\_\_\_\_

Assigned Password \_\_\_\_\_ (to be changed on first login)

Completed by \_\_\_\_\_ Date \_\_\_\_\_

----- **PART 3** (to be completed by ITD) -----

Permissions			
	ASPEN Full		
	ASPEN Guidance		
	ASPEN Nurse		
	ASPEN Psychologist		
	ASPEN Secretary		
	ASPEN Teacher		
	ASPEN Basic		

Required Services

Email \_\_\_\_\_ Internet \_\_\_\_\_

----- Please Return to ITD Help Desk, District Office -----

**For Office Use Only**

IT DIRECTOR SIGNATURE \_\_\_\_\_

DATE: \_\_\_\_\_

TITLE: **IT Director** \_\_\_\_\_



## **12.9 The Children's Internet Protection Plan – Internet Content Filtering/Safety Policies**

In compliance with The Children's Internet Protection Act (CIPA) and Regulations of the Federal Communications Commission (FCC), the District has adopted and will enforce this Internet safety policy that ensures the use of technology protection measures (i.e., filtering or blocking of access to certain material on the Internet) on all District computers with Internet access. Such technology protection measures apply to Internet access by both adults and minors with regard to transmissions that are obscene, child pornography, or, with respect to the use of computers by minors, considered harmful to such students. Further, appropriate monitoring of online activities of minors, as determined by the building/program supervisor, will also be enforced to ensure the safety of students when accessing the Internet.

Further, the Board of Education's decision to utilize technology protection measures and other safety procedures for staff and students when accessing the Internet fosters the educational mission of the schools including the selection of appropriate teaching/instructional materials and activities to enhance the schools' programs; and to help ensure the safety of personnel and students while online.

However, no filtering technology can guarantee that staff and students will be prevented from accessing all inappropriate locations. Proper safety procedures, as deemed appropriate by the applicable administrator/program supervisor, will be provided to ensure compliance with the CIPA.

In addition to the use of technology protection measures, the monitoring of online activities and access by minors to inappropriate matter on the Internet and World Wide Web may include, but shall not be limited to, the following guidelines:

- a) Ensuring the presence of a teacher and/or other appropriate District personnel when students are accessing the Internet including, but not limited to, the supervision of minors when using forums, blogs, electronic mail, and other forms of direct electronic communications. As determined by the appropriate building administrator, the use of e-mail and chat rooms may be blocked as deemed necessary to ensure the safety of such students;
- b) Monitoring logs of access in order to keep track of the web sites visited by students as a measure to restrict access to materials harmful to minors;
- c) In compliance with this Internet Safety Policy as well as the District's Acceptable Use Policy, unauthorized access (including so-called "hacking") and other unlawful activities by minors are prohibited by the District; and student violations of such policies may result in disciplinary action; and
- d) Appropriate supervision and notification to minors regarding the prohibition as to unauthorized disclosure, use and dissemination of personal information regarding such students.



The determination of what is "inappropriate" for minors shall be determined by the District and/or designated school official(s). It is acknowledged that the determination of such "inappropriate" material may vary depending upon the circumstances of the situation and the age of the students involved in online research.

The terms "minor," "child pornography," "harmful to minors," "obscene," "technology protection measure," "sexual act," and "sexual contact" will be as defined in accordance with CIPA and other applicable laws/regulations as may be appropriate and implemented pursuant to the District's educational mission.

Under certain specified circumstances, access to a computer where the blocking or filtering technology measure(s) have been limited may be available for adults engaged in bona fide research or other lawful purposes. The power to disable can only be exercised by an administrator, supervisor, or other person authorized by the School District.

The School District shall provide certification, pursuant to the requirements of CIPA, to document the District's adoption and enforcement of its Internet Safety Policy, including the operation and enforcement of technology protection measures (i.e., blocking/filtering of access to certain material on the Internet) for all School District computers with Internet access.

### **Notification/Authorization**

The District's Acceptable Use Policy and accompanying Regulations will be disseminated to parents and students in order to provide notice of the school's requirements, expectations, and student's obligations when accessing the Internet.

Student access to the ITS (Information Technology Services) will automatically be provided unless the parent has submitted written notification to the District that such access not be permitted. Procedures will be established to define the process by which parents may submit a written request to deny or rescind student use of District computers.

The District has provided reasonable public notice and has held at least one (1) public hearing or meeting to address the proposed Internet Content Filtering/Safety Policy prior to Board adoption. Furthermore, appropriate actions will be taken to ensure the ready availability to the public of the District's Internet Content Filtering/Safety Policy, as well as any other District policies relating to the use of technology.

Ref: 47 United States Code (USC) Sections 254(h) and 254(1)  
47 Code of Federal Regulations (CFR) Part 54

Adoption date: June 13, 2006



**12.10 Network Guideline Document**

Not Included



# Attachment A

## Technology Plan Submission Form

**Name of School District:** South Colonie School District

**Contact Name:** David Perry or James Lovett

**Contact Phone No:** 518-869-3576

**Contact Email:** [perryd@scolonie.org](mailto:perryd@scolonie.org)  
[lovettj@scolonie.org](mailto:lovettj@scolonie.org)

**Contact Fax No:** 518-869-6481

**Date Submitted:** August 23, 2018

**Timeline of Plan:** July 2018 – June 2021

Please state the page(s) that your district's Technology Plan addresses the five following core elements.

Page(s)	5 Core Elements
<input type="text" value="7-10, 12"/>	1) Mission & Goals Statement
<input type="text" value="24"/>	2) Staff Development Plan
<input type="text" value="11"/>	3) Current Inventory
<input type="text" value="32"/>	4) Evaluation Process

Uploaded copies of the Technology Plan to NYSED Business Portal after review by:  
Capital Region BOCES NERIC  
1031 Watervliet-Shaker Rd.  
Albany, NY 12205

To be completed by NERIC personnel:

Received by: _____	Date Received: _____
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