Corning-Painted Post Area School District

Strategic Technology Plan 2007-2010

Revised May 2007

District Profile

Corning-Painted Post Area School District is located in Corning, New York. The district encompasses 250 square miles in Steuben County a rural county in upstate New York. Steuben County is located on the Pennsylvania border south of Rochester and the Finger Lakes Region. Corning-Painted Post is the home of the corporate headquarters for a Fortune 100 company, Corning Incorporated.

Thirteen schools currently serve approximately 5,700 students, ranging from Pre-K to grade 12, and including special needs populations and adults. District wide, approximately 33% of our students qualify for the free or reduced lunch program.

In 1996 the district's two middle schools were the recipient of a five year Federal technology Innovation Challenge Grant called the "Corning Community Project for Learning and Teaching".

In 1997 four of the district's elementary schools received Goals 2000 funding to increase elementary reading scores.

In June 2001, the voters in the Corning-Painted Post School District approved a referendum providing for renovations at 11 of the existing district buildings and construction of a new high school. While this referendum was overturned, renovations were completed by the summer of 2003 in 7 elementary buildings. An additional elementary building will be renovated in the summer of 2004. All plans reflect support for the integration of technology in the instructional program.

Mission

The Corning-Painted Post Area School District exists to instill a love of learning by providing excellent and equal educational opportunities in order for all students to become responsible and creative members of a global society.

Our technology mission is to achieve quality learning, instruction, and communication through the integration of technology into the curriculum.

Vision

The integration of technology into the classroom curriculum can greatly impact the teaching and learning processes. The mere availability and incorporation of technology into the classroom will not be the single catalyst for this change. To see a transformation take place, teaching and learning must be re-conceptualized. Students, teachers and staff not only need access to technology, but also must have appropriate training to integrate technology into the classroom so that it is both effective and efficient. This plan accomplishes this task and makes recommendations on how we are to proceed and accomplish the goals we have set forth for students to become successful.

The following statements represent the vision as we implement the instructional technology plan.

1. A measure of our success will be students who leave school as self-directed learners able to work independently as well as in a team-based environment.

2. The learning environments will not be constrained by time, space, age or ability.

3. The instructional staff, through staff development and collaboration with others will design, guide, facilitate and orchestrate learning.

4. Learning requirements will drive technology use.

5. The community will be responsible for maintaining an environment conducive to learning.

6. A comprehensive plan for communication will be implemented through the use of technology.

Goals

Goal 1 All students will become proficient in the use of technology in order to become productive citizens in the 21st Century.

Objectives:

1. Students will use a variety of technology (i.e. computers, projection devices, scanners, CD-ROM, DVD, etc.) to communicate.

    - Students will be trained to create well-written documents, spreadsheets, databases, and multimedia presentations.

2. Train all students in the use of networks and telecommunications.

    - Students will access and retrieve information electronically.

3. Students will develop skills to interpret, evaluate and synthesize information to support learning in all content areas.

Goal 2 All instructional staff will demonstrate technological competencies in instructional delivery, student assessment, and professional communication.

Objectives:

1. Teachers will integrate technology into curriculum development.

2. Teachers will design and develop student learning activities that integrate computing and technology for a variety of student strategies and for diverse student populations.

3. Instructional staff will apply current instructional principles, research, and appropriate assessment practices, to the use of computers and related technologies.

4. Instructional staff will apply current instructional principles, research, and appropriate assessment practices, to the use of computers and related technologies.

5. Instructional staff will demonstrate knowledge of uses of computers for problem solving, data collection, information management, communications, presentations, and decision making.

Goal 3 The district will provide the necessary support to effectively utilize technology.

Objectives:

1. The district will maintain a Technology Committee for the purpose of ongoing evaluation and revision of the district's technology Plan. This committee will also provide recommendations for future direction.

    - Develop and maintain district Acceptable use Policies for students and staff.

2. The district will have a department of Computer Services consisting of:

    A. Director of Technology, with responsibility for:
    - Strategic Planning.
    - Funding and Investment.
    - Identification of Strategic Applications.
    - Instructional Technology.
    - Systems Integration.
    - Hardware and software standards.
    - Maintaining inventory of equipment and software.
    - Plans for and implements reuse, recycling and disposal of older equipment.
    - Oversees technical and instructional support groups.

    B. Technical Support Group, with responsibility for:
    - Network Administration.
    - Hardware Maintenance.
    - Oversight of Management Systems.

    C. Instructional Technology Support Group, with responsibility for:
    - Staff development.
    - Development and support of core team of teachers/trainers.
    - Software application and evaluation.
    - Dissemination of curriculum on district's instructional web pages.
    - Technology curriculum and technology competencies.

3. The district will provide the technology to support classroom management and instruction.

    - To qualify district libraries as basic level Electronic Doorway Libraries.

4. The district will provide training for all staff in the use of technology appropriate to their assignment or curriculum area.

5. The district will maintain an adequate networking infrastructure.

6. The district will provide integrated systems for its academic and business functions to the extent where these systems can exchange data when and where needed.

Planning

The District Technology Committee meets on a monthly basis to discuss district technology needs and implementation. The committee is comprised of cross-functional members of the district, which should minimally include the following for a quorum:

- Director of Technology,
- High School Teachers from each building,
- Middle School Teachers from each building,
- Elementary School Teachers from each building,
- A School Librarian.

Note: On occasion, if issues affecting areas outside of instruction are included on the agenda, this committee may be expanded to include:

- Central Administrative Team Members,
- District Administrative Support Staff Team Members,
- Building Administrators as appropriate,
- Guidance Staff Members,
- Community Representatives.

The committee has developed the district's Strategic Technology Plan, Acceptable Use Policies and district technology benchmarks by grade levels. When appropriate others are invited to attend meetings to share information and make recommendations. Based on information gathered from these meetings, hardware, software, connectivity and staff development needs are identified and addressed.

On a regular basis, this group reviews the progress the district has made on achieving the goals identified on pages 5, 6, and 7. In the event that the district is not achieving instructional goals, the committee will make recommendations to the appropriate instructional teams to remediate this problem. The committee will make recommendations to the appropriate district administrator or the Board of Education if remediation requires a reallocation or increase in resources for technology.

The district purchases WAN/LAN Network support and Instructional support services from the Greater Southern Tier (GST) GST BOCES. Staff members from the GST BOCES Computer Services Center (CSC) and Instructional Support Center (ISC) participate in district strategic planning meetings, and monthly Technology Committee meetings. They also participate in bi-weekly network tactical operations meetings to coordinate short range implementation plans and discuss problems and issues relating to the day-to-day usage of the district's technology infrastructure.

Implementation

Technology Infrastructure

From 1996 to 2000 the C-PP district upgraded its computer networking infrastructure from a limited administrative only token ring based LAN/WAN infrastructure to extensive building wide instructional/administrative Ethernet based LAN/WAN's in all its buildings. The WAN connections for all elementary buildings were upgraded to T1 capacity through Verizon Telecommunications Company. The WAN connections for the secondary buildings were upgraded to 100Mbit capacity utilizing fiber-optic connections provided by the Time-Warner-Cable Company. On average all classrooms were wired with from four to six computer network connections and sufficient numbers of corresponding electrical outlets. The district has been increasing the number of networked connected user PC's annually in its school buildings. It is a district goal to eventually provide the ratio of one computer system per every four students.

During the 2001-2002 school year the district partnered with GST BOCES and its component school districts in a Verizon Diffusion fund project to upgrade WAN connections to support fiber-optic based Gigabit Ethernet. The Gigabit Ethernet provides high-speed data throughput between the buildings in the district and between the GST BOCES. GST BOCES provides the district with LAN/WAN service, Internet access services and student information services.

During the 2004-05 school year, Steuben Allegheny Boces facilitated a Broadband project. This enhanced the administrative services offered through the WNYRIC. It also has allowed the Corning District to participate in Video Conferences offered in the Steuben Allegheny region.

During the 2000-2001 school year, the district investigated the use of wireless network technology (Wireless access points, wireless network interface cards). As a pilot project the district outfitted a mobile wireless laptop based lab. This lab has been expanded into multiple mobile labs, which are used for staff development and instructional programs.

The district's LAN Technology Specialists are continually finding more ways to manage the computer network remotely through the use of software. It is the district's intention to further develop its remote maintenance capability in an effort to reduce maintenance costs and increase the reliability of its LAN/WAN infrastructure.

The full upgrade of the district data network was completed during the telecom upgrade project in the 2004-2005 school year. The current network includes Cisco 3512 routing switches at each building. The central NOC has a Cisco 6509 with Supervisor 2 software. The Board building has Cisco 3500 power over Ethernet switches. At the core of each instructional building is a Series 3550-12 switch. All of those buildings have either 2900 or 3500 series edge switches.

Technology Hardware

Servers and Personal Computers

The availability of computers in education is always a challenge. Currently the district boasts a student to computer ratio of about 4 to 1. There are roughly 1900 instructional computers in the 12 instructional buildings. There are roughly 300 administrational or support staff computers in the 15 buildings. Every building in the district now has a formal computer lab. Many also offer mobile wireless labs. All instructional and administrative PC's are capable of operating Microsoft XP. The District currently looks to replace PC's on an as needed basis. Machines running Autocad and Graphic Design programs may be replaced every three years. Clerical are replaced on a four year rotation. All labs are replaced on a 4 year rotation. 95% of the computers in use in instruction are less than 6 years old.

The true demonstration of a successful technology program is having adequate technology, as demonstrated by integration. To support this integration, Corning has reduced the number and density of classroom clusters. The Corning school district has acquired 14 laptop carts and distributed them strategically. These carts have been crucial in true integration into the instructional areas, particularly in the secondary buildings. Expansion in the number of these mobile labs will be determined when the utilization of the existing labs exceeds 60% of the appropriate instructional period.

The Corning Painted Post School District has adequate server capacity for current use and replaces these servers every three years. The network was upgraded to the Windows 2003 by the spring of 2004. No expansion is anticipated.

The Corning Painted Post School District, in an effort to insure the reliability and compatibility of their hardware, will continually review vendors and will make purchases based on the lowest "Total Cost of Ownership." With that understanding, the Technology Department will, whenever possible, recommend standards and facilitate purchasing policies that meet this objective.

Due to the convergence of video and data services, the Technology Committee recommends that future computer acquisitions include DVD players as opposed to CD players. In addition, media purchases should reflect this technology to facilitate future integration.

The use of LCD projectors was limited due to high expense. Over the past 2 years the number of projectors has doubled in the district. The Technology committee has advocated that an effort be made to train all staff on the use of this equipment, and that the availability of reliable LCD units be expanded to reflect the integration into classroom instruction.

Telecommunications:

The facilities for data and voice communication in the Corning City School District are outstanding.

Traditional Telephone Services
As a component of the telecommunications project identified below, all the core switches in all the buildings were replaced or upgraded to improve capacity. Today, each building is linked by fiber optic cable with a minimum link of 1 gig. No improvement is required.

Between 2001 and 2003, 60% of the network switches were upgraded. As a result, all of the network switches are 100 mb or better, and all of the classroom computers operate at 100 mb, with 60% capable of operating at gig levels when it becomes available and desirable.

In 2003 the district identified the aging telecommunication system as a limit on productivity. It was determined that an upgraded system could reduce fixed costs to the district, improve administration productivity, and improve parent/teacher communication.

During the 2004-2005 school year, the Corning district upgraded all of the existing telecommunications switching equipment. The recent implementation of a Gigabit WAN under the Verizon Diffusion project provided the district with the capacity to implement IP/Telephony utilizing a portion of the Gigabit WAN bandwidth.
The completed project allows expanded telephone access to all classrooms, voice mail for administration, and reduced costs through the consolidation of data and telecommunications services.

There is no expansion or upgrade of the equipment required at this time.

Cell Phones

The District Safety Committee includes representatives from community safety organizations such as the Corning Police Department, The Painted Post and Corning Fire Departments. It also includes instructional staff, maintenance staff, and administration. They have recommended that all buildings be provided with a minimum of 2 cell phones. These phones will be available as a back up to the traditional building systems. In addition, these phones will be carried in First aid kits on field trips. This will allow emergency communication when the students leave the physical boundaries of their buildings.

The Safety committee has also recommended that athletic teams attending away events or events at remote locations also carry a cell phone to facilitate emergency communication.

The Corning School District encompasses over 200 square miles and 15 buildings. The Safety committee has recommended that several building and administrative staff carry cell phones to facilitate the availability of building or central administration staff members in the event of an emergency.

Technology Support Staffing

The Corning-Painted Post Area School District employs the following staff in its computers services department:

- Director of Computer Services
- Administrative Assistant
- Network Technology Specialists

The district supplements its own computer services staff with the following staff from GST BOCES:

- Network Technology Specialists
- Computer Repair Technician
- Instructional Support Specialists

Staff Development and Training

Staff development is available to the Corning-Painted Post Area School District through GST BOCES based on the district's identified needs. Training is customized to transition teachers and staff from introduction to computer competency. The district participates in the Model Schools program administered through GST BOCES. Specific training needs are identified and curriculum is developed that support NYS Learning Standards as well as the district's instructional technology, school improvement and professional development plans.

The district is interested in expanding Model School's staff development opportunities. Model Schools allows the staff member to participate in several hundred different Staff development instructions every year. These staff development sessions are appropriate to the instructional area of the individual staff member. Model School's training ensures that a product, lesson plan or process will be developed and implemented by those participating in the training. Follow-up by the site administrator encourages the utilization of that training by staff members. Teachers are encouraged to develop units that integrate technology into all aspects of instruction.

During the 2004-05 school year, all staff were informally surveyed to create an updated database of technology skills. This survey was used to identify appropriate and relevant staff development opportunities. In addition, all new staff are required to complete a survey of technology skills. Each non-tenured employee is required to complete 6 hours of appropriate technology training before being granted permanent tenure status.

These surveys demonstrated that previous staff development and the pre-tenure training have resulted in all of the staff being competent in basic computer skills. All staff can use basic computer tools such as Word and Excel. They are competent at Email and Internet skills. As a result of this survey, the district technology committee has established the integration of content materials as the area of concentration for staff development. Programs like Inspiration, Kidspiration, Cyber Ed Science software, Math Blaster, and Read 180 are examples of trainings that were recommended from this survey.

Teachers are encouraged to share their expertise with their colleagues. Individual buildings are encouraged to offer before and after school training session for which the staff is eligible for in-service course credit. Through continued development of the district and regional WAN a vehicle will be available for sharing exemplar models and best practices through video conferences.

Between 1996 and 2001 the district engaged in the implementation of a federal Technology Challenge Grant designed to provide its middle school teachers with staff development on the integration and implementation of technology into their classroom curriculum. In turn this has led to teacher peer collaborations on implementation of various technology projects and sharing of ideas and technology curriculum that was developed in these projects.

Between 1999 and 2003, the district has been a member of the Twin Tiers Coalition for Learning. This coalition included teachers from component districts from the Steuben-Allegheny and Schuyler-Chemung-Tioga GST BOCES regions in the Technology Institute for Learning and Teaching (TILT) program. This program, utilized as another source of staff development, brings together teachers new to integrating technology into their classroom with technology savvy teachers as mentors for guidance and critique during the development of classroom curriculum/activities using technology. TILT offers an intense weeklong summertime workshop for TILT participants. The Corning-Painted Post West High School hosted the summer TILT workshop in 1998 and 1999.

Beginning in 2004, the district began a program called "Tuesdays for Technology." This Staff Development initiative offers mini-courses with a direct instructional relationship. These courses are offered on a rotating basis in district labs and are hosted by the Instructional Staff specialist from GST es.

For each new staff member, a Technology IEP is established identifying areas of Technology Staff Development that would be most beneficial to the staff member and the district. The Director of Technology Services facilitates the establishment of in district and Model School's staff development sessions that will help meet this requirement.

During the summers of 2004, 2005, and 2006, Title II D funds were used to offer expanded specialized training in curriculum areas such as Biology, Laptop Integration, and Elementary ELA.

In the effort to fulfill Technology Goal #2, the of the Corning Painted Post School District anticipates that 100% of the instructional staff participates in a minimum of one, three hour technology training every two years.

Funding

The Corning-Painted Post Area School District utilizes Network support, Internet Access, Student Information and Instructional Support services from GST BOCES. It contracts with Erie-1 BOCES for Financial systems services support. Participating in the various GST BOCES technical services helps the district maximize its resources. Staff development and upgrading of equipment, especially in the area of technology needs to be ongoing and is crucial to the implementation/integration of technology in the curriculum. The district recognizes the need for ongoing annual investment in technology for renewal purposes. District administration is working with the district's board of education and the community to define a reasonable annual budget amount to be used to replace district equipment to avoid obsolescence and to insure use through continued staff development.

The district will continue to use GST BOCES cosers to maximize its resources. The district is committed to pursuing appropriate grant funding to help manage technology costs. In addition partnerships with local businesses, as well as the Twin Tiers Coalition for Learning are being utilized.

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Technology Expenditures

As a result of the severe budget cuts implemented in the 2003-04 budget both at the NY state and the local level, technology expenditures were reduced.
It is the commitment of the Corning-Painted Post Board of Education to support technology expenditures. During the 2002-03 and again during the 2004-05 school years, the Board of Education authorized multi year lease/purchase projects in conjunction with GST Boces. This program allows the district to acquire necessary hardware while distributing the cost over 4 years. In addition, these programs will allow the district to plan for obsolescence and replacement of classroom computers.

Expenditure	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Hardware	105,000	105,000	110,000	115,000	115,000	115,000
Software	87,000	90,000	90,000	100,000	100,000	100,000
Staff Development	40,000	40,000	45,000	50,000	65,000	65,000
GST BOCES*	975,000	975,000	985,000	985,000	1,050,000	1,075,000
Capital Proj.					100,000	100,000
Total	1,207,000	1,210,000	1,230,000	1,250,000	1,430,000	1,455,000

***** BOCES' expenditures include; computer technician support, data communications support, telecommunications, and telecommunication support, server software acquisition, multi-year lease purchase programs, and server maintenance. In addition GST BOCES provides business management operations and student management software operation and support.

Community Involvement/Collaboration

The district encourages involvement of all interested stakeholders by soliciting input/membership on a variety of building level and districts committees.

The district's technology planning has, on different occasions, involved students, parents, representatives from local business and industry. During the 2002-2003 school year, the Technology Team from Corning Inc. volunteered their expertise in the planning and implementation of the network upgrade to Windows 2000. They have also regularly served as volunteer consultants for telecommunications planning and materials acquisition.

Evaluation

Evaluation of the district's progress toward technology integration into the curriculum will be measured by:

- Increased Student Achievement
  - Over all test results and item analysis of state and national test will be identified annually to suggest areas where technology integration might improve instruction or student achievement. This might include improvement of collaborative learning, expansion of simulated learning environments, or expanded AIS and pre-test exam preparation. These areas will be evaluated for growth in subsequent years.
  - The Corning District will look for an annual increase in student participation in higher level instructional areas such as science and math through the integration of technology.
- Increased use of technology tools in the schools
  - Annually, Principals will identify target areas for improved instruction through the use of technology.
- Increased proficiency of students in the use of applied technology as measured in student performance on Benchmark Assessments.
  - The Corning Painted Post School District has adopted an annual On-line assessment of student technology skills. This assessment is brief, and directly corresponds to the District technology benchmarks created by the teachers and adopted by the board. Currently, this assessment is administered at the conclusion of grades three, six, and ten. The assessment will be annually reviewed to identify areas requiring additional instruction. It is the district goal that performance by tenth graders will improve 10% annually until 100% of all tenth graders demonstrate proficiency.
- Increased access to global connections.
  - By the end of the 2006-2007 school year, 100% of elementary buildings will have experienced a Virtual Learning Experience.
  - By the end of 2007-2008 a minimum of 20 Virtual Learning Experiences will be scheduled at the secondary level.

Appendix

- Hardware replacement schedule
- Acceptable Use Policy
- Internet Filtering Policy