

Homer Central School District

**Educational Technology Plan
2007-2010**



Planning for the future of our children

Plan Adopted by Homer Central School District Board of Education - June 12, 2007
Plan Approved by OCM BOCES - May 23, 2007

Technology Planning Team

During the school year of 2006-2007, a committee of parents, teachers, administrators and support staff came together as a Technology Planning Team. Their charge was to 1) review the current technology plan; 2) review technology plan requirements of the **No Child Left Behind Act, E-Rate, New York State Technology Plans, and OCM BOCES**; 3) assess the current technology and its use in the curriculum; and 4) prepare a successor technology plan, making recommendations for the next three years.

This plan is the successor plan to the 2004-2007 Technology Plan. It is undergoing review by the District Technology Committee, the Administrative Team, adoption by the Homer Central School Board of Education and will be submitted for approval to OCM BOCES to meet state and federal e-rate requirements.

HCSD Technology Plan - Planning Team

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Technology Plan Accountability Review

This table of critical elements was provided by [OCM BOCES Center for Learning Technologies](#).

Section	Critical Element	Homer Central School District response to meet statutory requirements:
	Requirements of §2414 of Title II D of the No Child Left Behind-Enhancing Education Through Technology Act of 2001 and NYSED. LEAs must include a new or updated strategic long-range (three to five year) plan that includes:	Since 1981, Homer Central School District has a long history of technology planning with the sole purpose of preparing students for their future, aligning their instruction with New York State Education Department Goals, Curriculum and Standards.
Exec. Summary	A) a description of how funds will improve student academic achievement, including technology literacy, of all students attending LEA and improve capacity of all teachers to integrate technology effectively into curricula and instruction	<ul style="list-style-type: none"> The Homer Central School District funds technology through many sources including annual operational budgets, capital projects, local projects, local corporate alliances, and various grants. These funds continue to improve technology literacy and academic achievement of all students through integration of technology in all curricula. These funds also support annual professional development of all teachers to improve their capacity to integrate technology effectively in the instructional program. This three year technology plan goes into great depth with strategies specifically identifying these elements.
Strategies and Activities 1.1 1.2 1.3 1.4 2.1 2.2	B) a description of the applicant's specific goals for using advanced technology to improve student academic achievement, aligned with State academic content and student academic achievement standards	<ul style="list-style-type: none"> Student academic achievement standards are aligned with local and state standards in the district curriculum. The integration of technology in the curriculum directly supports these standards. Selection of 1) professional staff training, 2) hardware, and 3) software is based on improving student achievement with these core underlying standards. In addition, support of the development of staff and student technology literacy is fundamental in meeting these standards.
Strategies and Activities 1.4	C) a description of steps ensuring all students and teachers in LEA have increased access to educational Technology, including how (also in combination with funds from other sources), will give students in high-poverty and high-needs schools, or identified under section 1116, access to technology; and prepare teachers to integrate technology effectively into curricula and instruction	<ul style="list-style-type: none"> Annually steps are taken in 1) planning, 2) budget, 3) Staff Review, 4) Administrative Review, 5) Parent & Community Input and 6) Board of Education Review to ensure that all students and teachers have equitable access to educational technology. Two critical core committees meet periodically to seek input and make recommendation to support those targets. The District Technology Committee comprised of representative staff, administration, (optionally BOE, parents, students) is charged with administration of the technology plan to directly support the instructional mission of the district. The Professional Staff Development Committee periodically meets to critically plan for all staff development supporting targets to increase the capacity of all staff to integrate technology in to the curriculum and increase student achievement.
Strategies and Activities 1.1.8 1.4.2 1.4.3 2.1.2	D1) a description of how LEA identifies and promotes strategies integrating technology effectively into curricula and instruction, based on a review of relevant research, and leading to improvements in student academic achievement as measured by challenging State standards	<ul style="list-style-type: none"> Homer Central School District annually reviews and evaluates current curriculum, student assessment results, and staff instructional needs to determine areas for improvement. Development of strategies to meet these needs occurs in many forums including; curriculum committees, administrative planning, BOCES Curriculum Support Forums, State Education Department Curriculum Guides, State Assessments, staff participation at conferences and workshops, professional studies and professional research. Periodic reports are presented to the Board of Education by students, staff and administration, highlighting both successes and short comings of our instructional program in meeting State Assessment targets, college entrance targets and student graduation goals.

Section	Critical Element	Homer Central School District response to meet statutory requirements:
Prof. Staff Dev.	D2) a description of how the LEA will ensure ongoing, sustained professional development for teachers, administrators, and school library media personnel served by the LEA to further the use of technology in the classroom or library media center;	<ul style="list-style-type: none"> Prior to the end of each school year, the Homer Central School District Administration reviews the Professional Development Portfolio of all staff (maintained through My Learning Plan) to ensure minimal state professional development requirements AND local contractual requirement for in-service hours are also met. Included in this plan is a Staff Self-Assessment Survey to be periodically self-administered by staff, supporting targets for sustained professional development.
My Learning Plan and District Profile	D3) a list of source(s) of ongoing training and technical assistance available to schools, teachers and administrators in the LEA, such as NYSED, BOCES, Teacher Centers, NYSC&TE, regional educational laboratories or institutions of higher education	<ul style="list-style-type: none"> Through My Learning Plan, Homer Central School District maintains an ongoing web database of professional development activities available to all staff. Offerings from OCM BOCES, SQS – BOCES, Cortland-Homer Teacher Center, and District Sponsored activities are scheduled and accessible to all teaching professionals through the web interface. Staff can also enter all their professional growth activities through this database enabling tracking of goals and periodic reports.
Plan Administration and Budget	E) a description of the type and cost of supporting resources, such as services, software, print Resources and digital curricula, to be acquired to ensure effective use of technologies acquired under this section; including specific provisions for their interoperability	<ul style="list-style-type: none"> The district budget supports technology resources mainly through categorical state aid and BOCES aid. Library automation, online subscriptions, software, hardware, technical support, internet fees, telecommunication leases, student information services, and training services are funded, mainly through those two streams. An overview of the descriptions is offered in the Plan Administration and Budget section of this document.
Strategies and Activities 2.1.1.	F) a description of how the LEA will coordinate the technology provided pursuant to the subpart with technology-related activities carried out with other grant funds available for technology from Federal, State and local resources	<ul style="list-style-type: none"> The district administers the instructional program supported by technology by providing access and support by both local and regional staff. The technology plan is a guideline for review by the District Technology Committee, who makes recommendations to administration in meeting instructional needs supported by technology.
Strategies and Activities 1.4.3 1.4.4	G) a description of how the applicant will integrate technology, including software, into curricula and instruction, and a timeline for such integration	<ul style="list-style-type: none"> The district continues in its transition to integrate technology in all classrooms and in all curricular areas. This three year plan enhances the transition with the call for online curriculum maps identifying how/when technology is supporting the curriculum, available to staff, students and community. It is expected to be a “living” map, enabling changes as technology improves.
Strategies and Activities 1.4.6 1.4.7	H) a description how LEA will encourage development and use of innovative strategies for delivery of specialized or rigorous academic courses, including through technology such as distance learning to areas without access to such material, through geographical isolation or insufficient resources	<ul style="list-style-type: none"> This plan encourages innovative strategies for improved academic course options, parent communications, and internal communications while maintaining sensitivity to educational ethics, student safety and confidentiality.
Strategies and Activities 1.2.1, 1.2.1	I) description of how the applicant will use technology to promote parental communication and involvement, including how parents will be informed of the technology being applied in their child's education so that they will be able to reinforce at home the instruction their child receives at school	<ul style="list-style-type: none"> Parental involvement is recognized as a vital component in the educational process; this plan addresses increasing communications with parents using technology.
NA	J) a description of how programs will be developed, where applicable, in collaboration with adult literacy service providers, to maximize the use of technology	<ul style="list-style-type: none"> Internet Safety for Parents...

Section	Critical Element	Homer Central School District response to meet statutory requirements:
Strategies and Activities 2.1.1 Guidelines for Development of Technology Integration Programs	K) describe process and accountability measures for ongoing evaluation of how technologies funded under this subpart will: a) be effective in integrating technology in curricula and instruction b) will increase ability of teachers to teach, and of students to meet challenging State academic, content standards and student performance standards	<ul style="list-style-type: none"> The District Technology Committee comprised of representative staff, administration, (optionally BOE, parents, students) is charged with administration and evaluation of the technology plan support the instructional mission of the district.
Strategies and Activities 2.2.2	L) a description of supporting resources (services, software, other electronically delivered learning materials, and print resources) to be acquired to ensure successful and effective uses of technology	<ul style="list-style-type: none"> District targets to support a five year replacement cycle for major technologies (client stations, servers, peripherals) and support a similar replacement cycle (as needed) for critical components (passports, firewalls, and other “edge devices”). Software life and other electronic materials are critically reviewed for their effectiveness with increasing student achievement prior to purchase or subscription. The district subscribes to a number of OCM BOCES services to support student instruction through technology. These include library services, guidance services, testing services, student information services and educational programs. The district also subscribes to BOCES services for technology support. These services include internet content filtering, e-mail spam filtering, anti-virus, firewall, network edge device, and hardware support. Other services also include support to data in district financial, cafeteria and transportation departments.
Strategies and Activities 2.1.1 2.2.2	M) an explanation how teachers from all participating districts are involved in the planning, development, implementation and evaluation of the plan	<ul style="list-style-type: none"> The District Technology Committee comprised of representative staff, administration, (optionally BOE, parents, students) is charged with administration and evaluation of the technology plan support the instructional mission of the district. The Professional Staff Development Committee and Professional Staff Development Committee for Non-Instructional Personnel meet periodically to critically plan for all staff development supporting targets to increase the capacity of all staff to integrate technology in to the curriculum and increase student achievement.
Phillips Free Library	N) an explanation of how public libraries will be included in planning and implementation	<ul style="list-style-type: none"> Phillips Free Library of Homer, NY is the local public library in the district of Homer Central Schools. To increase awareness of the resources of Phillips Free Library, students, staff and community of the Homer Central School District will find links to the website of Phillips Free Library from the Homer Central School District website.

Executive Summary

In the past decade, Homer Central School District has made considerable progress through planning, research, collaboration, annual technology initiatives and initial capital projects. Recent efforts by the district through BOCES projects and the Capital Project of 2002-2004 have completed the build of an infrastructure that will support *high-speed* instructional *networking* technology in all classrooms. This plan describes our *next steps toward improving student achievement using technology*.

The Homer Central School District's mission to promote excellence in education, envisions the power of information technology to create an environment where every learner will have the skills and tools necessary to access information, analytical resources and human resources to attain greater academic achievement enabling life long learning.

Two integral goals dominate the recommendations of this plan:

1. *Improve student achievement through the application of technology.*
2. *Effectively integrate of technology into teaching and learning.*

Recent research provides evidence that consistent and sustained integration of technology into an authentic teaching and differentiated learning environment improves student achievement. ¹

In support of the integral goals above, we advocate:

- *Strong leadership for technology integration*
- *Clear expectations of integration*
- *Effective staff development*
- *Effective technology support*
- *Strong links to the local school community through technology*

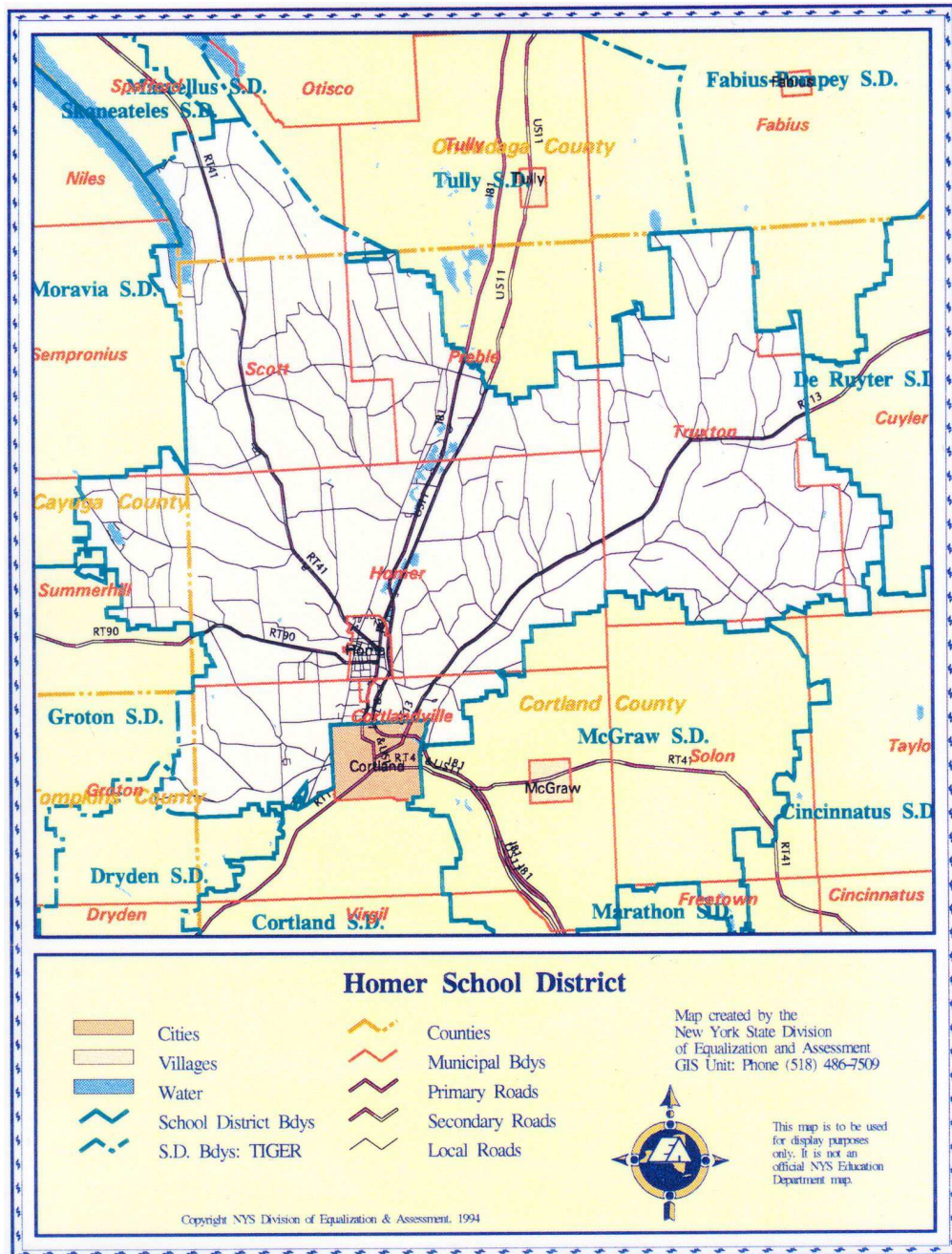
By following the strategies that support the two goals above, this plan will improve academic achievement and technology literacy of all students in Homer Central School District by:

- Supporting 'instructional delivery' and 'student learning' by providing consistent and appropriate technology aligned with District Curricula, NYS Content Guidelines and NYS Learning Standards at every grade level in every building
- Maintain effective communication among students, teachers, parents, administration, and community through the maintenance of an interactive, exemplary website
- Equip and maintain all buildings equitably with connectivity, hardware, software, digital resources, instructional/learning materials, production and presentation equipment and facilities
- Provide equitable access to learning technology and skills instruction for all students
- Develop and achieve a comprehensive and coordinated approach to the use of media and technology across all constituencies.
- Develop district level initiatives for effective use of technology in administration

¹ "[Using Technology to Improve Student Achievement](http://www.ncrel.org/sdrs/edtalk/newtimes.htm)", NCREL – North Central Regional Education Laboratory, <http://www.ncrel.org/sdrs/edtalk/newtimes.htm>

Homer Central School District Profile

- Homer Central School District, located in Central New York, is approximately 30 miles south of Syracuse, NY and an equal distance from Binghamton. Encompassing more than 175 square miles in the counties of Cortland, Onondaga, Cayuga and Tompkins, the district serves students from the towns and villages of Homer, Scott, Preble, Truxton, Summerhill, Groton, Solon, Sempronius, and Spafford.
- The Homer Central School district strives to provide a wide range of quality educational opportunities to all pupils within an efficient and well managed financial strategy.



- Enrollment: 2224 (January 2007)
- Employment: 342 full and 57 part-time staff
- 200 member Teaching staff with 167 having masters' degrees or above: 83.5%

- Homer Central School District currently has collaborative educational relationships with many other schools, colleges and educational organizations including:
 - Cortland Homer McGraw Teacher Center
 - Cortland County Districts: Cortland, McGraw, Cincinnatus, Marathon and DeRuyter, St. Mary's Schools and Onondaga Cortland Madison BOCES
 - Tompkins Cortland Community College
 - State University of New York College at Cortland
 - Cornell University
 - Syracuse University
 - National Science Teachers Association

- New York State Report Card for Homer Central School 2004-2005 is found at http://emsc33.nysed.gov/reprcd2005/links/d_110701.shtml
- The district has five sites: (Enrollment data from Jan. 2007 Attendance Report)
 - Hartnett Elementary (115 students, K-6)
 - Homer Elementary (401 students, K-2)
 - Homer Intermediate (602 students, 3-6)
 - Homer Junior High (379 students, 7-8)
 - Homer Senior High (727 students, 9-12)

Community Support

The communities of the district support high expectations of academic achievement for our students. Our district receives collaborative educational support through:

- local business partnerships and student opportunities,
- local town agency activities for our youth, Phillips Free Library
- active parent groups at each site
- and *Homer Central School District Alumni*.
- *Homer Education Foundation*

District Strategic Plan

This plan is in alignment with the ongoing Homer Central School District Strategic Plan, supporting the mission and goals set by the Board of Education and our educational community.

District Professional Staff Development Plan

This plan is in alignment with the ongoing Homer Central School District Professional Staff Development Plan.

Existing Infrastructure

- Homer Central School District has had internet access since the mid 90's. Initial connections were T1 lines from the Intermediate Junior High to the High School and 56k lines from the elementary buildings to the high school.
- In the spring of 2001, District Libraries began a library automation project to give us our present on-line library catalog
- In November 2001, the District T1 internet access was replaced with an OC3 (fiber optic line) connection to

OCM BOCES in Syracuse. Through the Central Regional Information Center at OCM, regional educational access to the internet is provided to area schools.

- In the fall of 2002, a wide-area network (WAN) was installed connecting the Intermediate-Junior High and Elementary sites to the high school with a gigabit fiber backbone. Hartnett was upgraded to a T1 connection during that time. The installation of the WAN enabled centralization of most all servers. The Network Operations Center (NOC) supports those servers.
- The data component of the 2003 Capital Project installed category 5e wiring for 100mb Ethernet connectivity in all classrooms and instructional areas. The distribution closets are connected by gigabit fiber. That capital project also upgraded the telephone systems enabling four digit dialing between the district buildings/classrooms.
- In the fall of 2006, the OC3 fiber connection to OCM BOCES was replaced by a 100mb fiber Ethernet connection.
- Homer High School (9-12) currently has 3 computer labs, 4 science pods, one music pod and computer systems in the library. Most all other instructional spaces have at least one computer.
- Homer Junior High (7-8) currently has two computer labs, a technology computer lab and computer systems in the library. Most all other instructional areas have at least one computer.
- Homer Intermediate (3-6) has one computer lab, computers in the library, and most all classrooms have 5 networked computers.
- Homer Elementary (K-2) has one computer lab, computers in the library, and most classrooms have two computers.
- Hartnett Elementary has one computer lab, computers in the library, and all classrooms have two networked computers.

Current Replacement Process for Client Stations

The district has had a practice of redeploying hardware for alternative use whenever possible to extend the useful life of equipment. Annually, an assessment of existing equipment is made to determine usefulness in terms of supporting existing [Homer Central School District Curriculum](#), and [New York State Core Curriculum and Learning Standards](#) and [No Child Left Behind Requirements](#). This assessment will determine minimum hardware standards for the district.

Safety and Security

Safety and Security are foremost in network services for students and staff. The district subscribes through BOCES to internet content filtering, following guidelines established by [The Children's Internet Protection Act](#) and [Homer Central School Board of Education Internet Filtering Policies](#).

The District manages and maintains a firewall to filter questionable packets, providing a barrier to hackers and viruses. The district also subscribes to anti-virus services for servers, client stations and e-mail along with spam filtering service for district e-mail. With monitored control on these devices, quality educational resources are available through our networks.

The District also subscribe to cell phone services for emergency use.

District Technology Vision Statement

The Homer Central School District vision for technological infrastructure fundamentally supports the global mission for child development, enabling students to acquire the knowledge, behavior, and skills to be life-long learners, effective parents, productive workers, and concerned citizens.

The District is committed to providing a safe, technologically rich, environment conducive to the education of our Learning Community, where students and staff in our school:

Believe that all children can learn

Learn to use technology as a tool supporting communication, information access and analysis

Use technology in multiple environments in support of academic achievement

Experience the sense of accomplishment through the application of technology that supports development of critical thinking and problem solving skills

Provide collaborative educational opportunities with other learners in our world-wide community

Respect and display qualities of good citizenship, exceptional leadership, and healthy character development

Investigate our living world and all its physical and natural settings through the use of technology

Develop technological literacy skills to enhance lifelong learning and

Ensure that all our students become technologically capable and proficient with these skills before graduation.

Vision (continued)

The role of technology continues to have a profound affect on education. Use of computer technology in schools was originally directed simply toward word processing, and the use of spreadsheets, and graphics. The historic focus on basic computer literacy is being shifted to one of technological and informational literacy in order to promote effective use of technology to manage, understand, and communicate information.

Through the use of technology in the immediate future we will observe:

- More effective personal feedback to the student during the learning process
- Wider course opportunities for students during the day, evening, and summer
- Students and teachers utilizing a greater number of strategies to process and manage information
- Students and teachers engaging in more fruitful collaborative opportunities, both within our community and across the globe
- Teachers accessing more diverse curriculum resources, online professional development, new methodologies and resources to better address individual student needs
- Existing curricula, expectations, and resources electronically available to parents
- Parents accessing ongoing information about their child's learning status
- Parents availing themselves of life-long learning opportunities

The following attributes of a learning environment and its opportunities are supportive in achieving the vision for increased student learning through the use of technologies.

EQUAL ACCESS FOR MEMBERS OF THE LEARNING COMMUNITY

- Basic technological networking capabilities are provided at all sites.
- Minimum standards of hardware and software are maintained for all students, staff, and sites.
- Equal access to hardware and software meeting the minimum standards is assured for all students, staff and sites.
- Equitable delivery to all students is implemented according to grade level technology goals.
- Enhanced communication affords parents and the community greater access to appropriate school information.
- Members of the learning community are able to access school learning resources, classroom lessons and assignments, school information and electronic messages.
- Opportunities for interaction, collaboration and information exchange are technologically facilitated to members of the learning community.
- Active partnerships among schools, businesses, homes and the community are encouraged through equitable access to learning technology as a community investment.

DEVELOPMENT OF LIFE-LONG LEARNERS

- Flexibility, adaptability, critical thinking, problem solving, and collaboration are essential to success in our rapidly changing information age.
- Skillful use of technology will be nurtured to support the development of life-long learning and process skills.

INTEGRATION OF TECHNOLOGY INTO THE CLASSROOM

- Expanded classroom tools for teaching and learning provided by the integration of multiple technological resources into existing and emerging curricula.
- Technology is integrated into classrooms in such a way that the learning community may work productively and more effectively access, process and communicate information.
- Integrated technology links the classroom with educational resources within the building, community and worldwide.
- Technological resources create an environment where collaborative projects and activities are possible.
- Integrated technology enhances students' productivity as they work toward learning goals.
- Easy access to technological resources encourages the use of multimedia tools, enabling students to become active and experiential learners
- Integrated technology continues to facilitate the development of partnerships within the school, among schools, and with other organizations to improve learning

BUILD A CULTURE OF CONTINUOUS LEARNING FOR STAFF

- Continue to provide introductory instruction to networked systems.
- Continue to support staff needs for using basic network software.
- Pursue and coordinate greater online learning opportunities to meet the diversified training needs of all staff.
- Improve curricula with network applications (e.g. math, writing ... etc.).
- Continue to seek and provide training opportunities for leading educational strategies that incorporate technologies in the curriculum.
- Provide staff instruction for safely sharing student progress online with students and their parents.

SUPPORT FOR INSTRUCTIONAL CHANGE

- Facilitate access to collegial support and best practice information from a wide variety of resources.
- A wide variety of teaching tools and strategies is available to support diverse learning styles.
- A user-friendly system that provides efficient management of student assessment and portfolio data exists.
- Readily accessible support for emerging instructional strategies exists, including that for inter-disciplinary, collaborative, and active learning options.
- Continue development of resources that enhance the effort to align curriculum, instruction and assessment.
- A system is improved that helps students, parents and teachers work together to support desirable educational achievements.
- An environment exists where staff pilot new teaching strategies, technologies, and instructional resources that improve student achievement.

Technology Plan Goals

Technology Goal #1

Improve student achievement through the application of technology.

Technology Goal #2

Effectively integrate technology into teaching and learning.



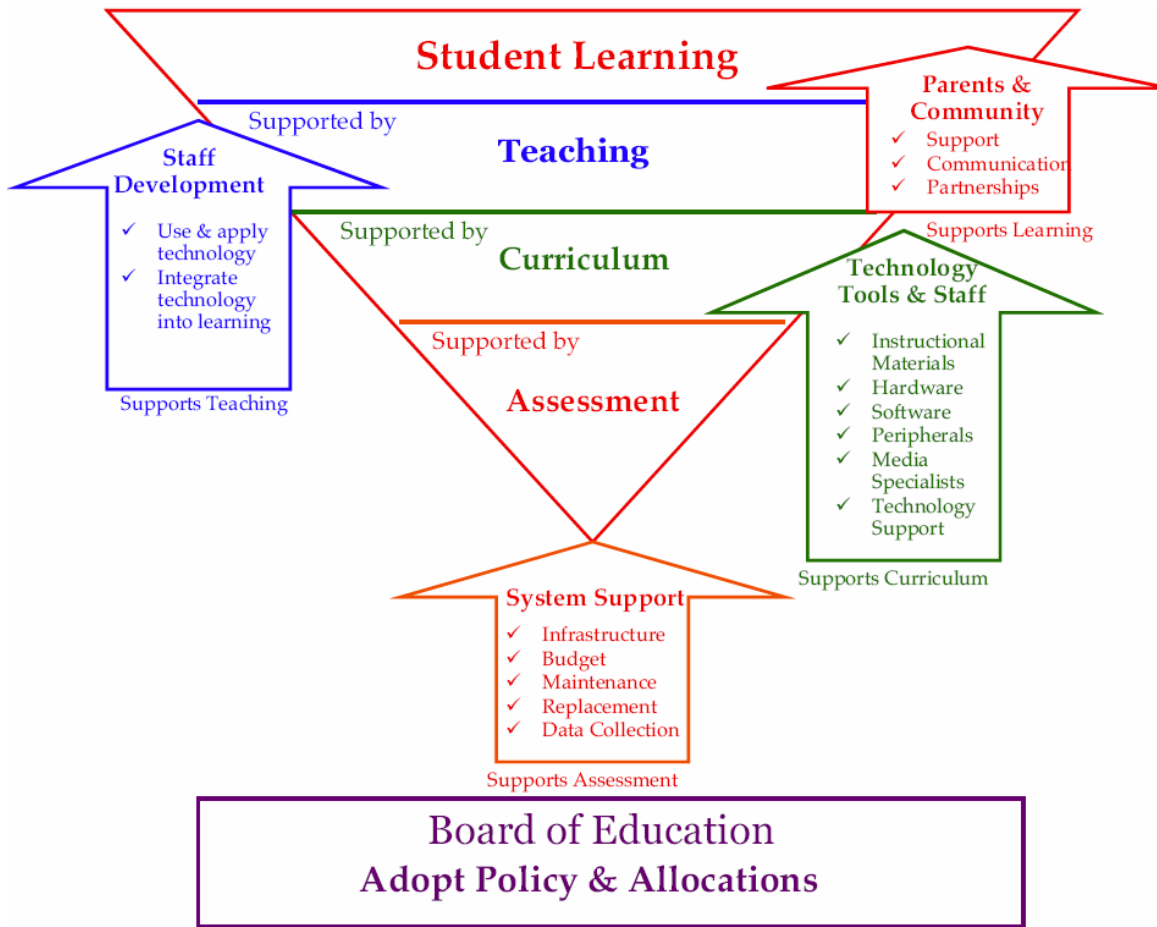
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University of the State of New York
State Education Department



Technology Integration Model



Supports Learning, Teaching, Curriculum and Assessment by Adopting District-wide Standards, Supporting New York State Standards, and Providing Parent & Community Connections, Staff Development, Technology Tools, and System Support

Strategies and Activities for Achievement of Goals

Improve student achievement through the application of technology.

Strategy 1.1: Support 'instructional delivery' and 'student learning' by *providing consistent and appropriate technology aligned with District Curricula, NYS Content Guidelines and NYS Learning Standards at every grade level* and in every building. To enhance and document student learning in differentiated teaching and learning styles.

Strategy 1.2: Maintain *effective communication* among students, teachers, parents, administration, and the community through the maintenance of an interactive, exemplary web site.

Strategy 1.3: *Equip and maintain* all buildings equitably with connectivity, hardware, software, digital resources, instructional/learning materials, production and presentation equipment, and facilities.

Strategy 1.4: Provide *equitable access* to learning technology and skills instruction for all students.

Effectively integrate technology into teaching and learning.

Strategy 2.1: Develop and achieve a *comprehensive and coordinated approach to the use of media and technology* across all constituencies.

Strategy 2.2: Develop district level initiatives for *effective use of technology in administration*.

Goal 1

Improve student achievement through the application of technology.

Strategy 1.1: Support ‘instructional delivery’ and ‘student learning’ by *providing consistent and appropriate technology aligned with District Curricula, NYS Content Guidelines and NYS Learning Standards at every grade level* and in every building. To enhance and document student learning in differentiated teaching and learning styles.

Activities:	Primary Responsibility	Target Date
1.1.1 Every student, parent, teacher, administrator and community member have electronic access to current curriculum maps.	Dir. of Instruction, Dir. of Tech, Instructional Staff	Ongoing
1.1.2 HCSD uses technology to document student achievement aligned with District Curricula, NYS Content Guidelines and NYS Learning Standards district-wide.	Dir. of Instruction, Dir. of Tech, Instructional Staff	Ongoing
1.1.3 Every student have the ability to maintain an individual network folder containing their documents and manage its content.	Building Principals, Dir. of Instruction, SQS	Ongoing
1.1.4 Provide in classroom professional development to expand skills in teaching for differentiated learning styles, authentic learning, and the integration of the use of technology.	Building Principals, Dir. of Instruction, Dir. of Tech.	Ongoing
1.1.5 Integrate district technology orientation for all new employees.	Instructional Staff, Dir. of Instruction, Dir. of Tech	Ongoing
1.1.6 Appropriate and consistent levels of hardware, software, materials, and staffing are provided to support use of technology in all teaching and learning styles – equitably throughout the district.	Administration; Dir. Tech; Tech Comm.	Ongoing
1.1.7 Develop and implement a three year plan to train teachers how to integrate technology into curriculum units and teaching practice.	Dir. Tech, PSDC, BOCES consultant	Ongoing

Goal 1

Improve student achievement through the application of technology.

Strategy 1.1: Support 'instructional delivery' and 'student learning' by *providing consistent and appropriate technology aligned with District Curricula, NYS Content Guidelines and NYS Learning Standards at every grade level* and in every building. To enhance and document student learning in differentiated teaching and learning styles.

Activities:		Primary Responsibility	Target Date
1.1.8	Provide in-classroom support for the integration of technology into teaching and learning.	BOCES consultant, PSDC, Dir. Tech	Ongoing
1.1.9	Develop and implement a professional development plan for administrators in technology use issues and standards.	Dir. Tech, Administrators	Ongoing
1.1.10	Develop and implement a consistent skills assessment tool for students across the district and at 3-12 levels. (Self analysis.)	Tech Comm.	Ongoing
1.1.11	Develop and implement a consistent skills assessment tool for professional staff across the district and at all levels. (Self analysis.)	Tech Comm.; PSDC	Ongoing
1.1.12	Provide support to the grant application process in applying for technology grants for learning improvement.	District Grant Writer; Tech Comm.	Ongoing
1.1.13	Provide staff access to school resources from home.	Dir. Tech; Net Admin; Tech Comm.	Ongoing

Goal 1

Improve student achievement through the application of technology.

Strategy 1.2: Maintain *effective communication* among students, teachers, parents, administration, and the community through the maintenance of an interactive, exemplary web site.

Activities:	Primary Responsibility	Target Date
1.2.1 Provide every teacher with a web site wherein each class may be represented.	Dir. Tech; Net Admin; Building Principals	Ongoing
1.2.2 Provide every student and their parents with access to class web sites, email and media resources from home.	Dir. Tech; Net Admin; Building Principals	Ongoing
1.2.3 Provide the ability for students to turn in assignments and reports electronically from home.	Dir. Tech; Net Admin; Building Principals; Staff	Ongoing
1.2.4 Provide a teacher/webmaster for each building to maintain the building web site and to assist teachers in web site development – Stipend or Release time	Building Principals	Ongoing
1.2.5 Develop and maintain an exemplary district web site by hiring a Web Master.	Supt.	Ongoing
1.2.6 Cable service and closed circuit broadcast to all school rooms in all buildings.	District	Ongoing
1.2.7 Recognize email and the District Website as the official means of communication intra and inter district – adopt a district standard of expectation.	Supt.	Ongoing
1.2.8 Assess students with common rubric district-wide. Electronic grade reporting will be available K-12.	Teachers	Ongoing

Goal 1

Improve student achievement through the application of technology.

Strategy 1.3 : *Equip and maintain* all buildings equitably with connectivity, hardware, software, digital resources, instructional/learning materials, production and presentation equipment, and facilities.

Activities:	Primary Responsibility	Target Date
1.3.1 Audit all buildings for equipment and develop a plan to accomplish equity of access and grade level standards.	Dir. Tech, Tech Committee	Ongoing
1.3.2 Plan a 3-year budget to accomplish both equity and the new standards.	Dir. Tech, Dir. Finance, BOE	Ongoing
1.3.3 Create a plan and budget for maintenance and replacement of technology so that technology is current to meet instructional and learning needs.	Dir. Tech, Dir. Finance, Tech Committee, BOE	Ongoing

Goal 1

Improve student achievement through the application of technology.

Strategy 1.4 : Provide *equitable access* to learning technology and skills instruction to all students.

Activities:	Primary Responsibility	Target Date
1.4.1 Provide supervised extended open hours in technology labs and media centers for student use.	Building principals, Dir. Tech, BOE	Ongoing
1.4.2 Revise and implement Technology Instruction Standards based on NYS Ed. Dept. Curriculum Guidelines and relevant research for all teachers.	Tech Committee	Ongoing
1.4.3 Revise and implement Technology Curriculum Standards for each grade level, creating online curriculum maps available to the educational community over the next five years.	Dir. Instruction, Dir. Tech. Tech Comm. PSDC	Ongoing
1.4.4 Provide support for every teacher to integrate technology into at least one curriculum unit per year for the next five years and to share those units electronically.	Dir. Tech, Dir. Instruction; PSDC	Ongoing
1.4.5 Provide training and support for online instruction.	Dir. Tech, Dir. Instruction	Ongoing
1.4.6 Provide student access to online courses offered by the district, by other schools, and by colleges. Enable successful completion of the courses to be part of the student guidance record.	Dir. Tech, Dir. Instruction, Guidance Chair, Principals	Ongoing
1.4.7 Continue district website value to learning by improving organization of the website, increasing capacity for posting homework online, and enabling staff to post curriculum resource links directly.	Dir. Tech; Net Admin;	Ongoing

Goal 2

Effectively integrate technology into teaching and learning.

Strategy 2.1: Develop and achieve *a comprehensive and coordinated approach to the use of media and technology across all constituencies.*

Activities:	Primary Responsibility	Target Date
2.1.1 Continue an ongoing Technology Committee representative of administrators, director of technology, faculty, technology support staff, students, parents, universities, and community members. Responsibilities: 1. Evaluation of the effectiveness of this plan on a yearly basis. 2. Long-range planning for continuous improvement of the vision. 3. Feedback results to all constituents. 4. Explore and recommend financial options for funding. 5. Form technology partnerships with the academic and business communities. 6. Provide direction for technology grant applications and administration of successful grants.	Dir. Tech; Tech Comm.	Ongoing
2.1.2 Continue on-going planning of professional staff development based on relevant research. In the annual PDP include technology training needs.	PSDC, Tech Comm.	Ongoing
2.1.3 Provide a web-based Self Evaluation Rubric for staff to support their professional training needs.	PSDC, Tech Comm.	Ongoing

Goal 2

Effectively integrate technology into teaching and learning.

Strategy 2.2: Develop district level initiatives for *effective use of technology in administration.*

Activities:	Primary Responsibility	Target Date
2.2.1 The district will move towards a paperless internal communications process for inter-staff communications – Procedure: that all primary communications are done electronically.	Supt., Administration, Tech Comm., HTA	Ongoing
2.2.2 The District will move towards revising teacher evaluation to include assessment of integration of technology into teaching and learning.	Supt., PSDC, Dir. Instruction, Dir. Tech, HTA Pres.	Ongoing
2.2.3 Administrators will convey to staff the expectation of integration of technology into the curriculum.	Administration	Ongoing
2.2.4 District Documents and forms will be available from the district website.	Dir. Tech,	Ongoing
2.2.5 District will target to support a five year replacement cycle for major technologies (client stations, servers, peripherals) and support a similar replacement cycle (as needed) for critical components (passports, firewalls, and other “edge devices”).	BOE, Dir. Tech, Tech Comm.	Ongoing

Action Strategies and Activities

Summary of Recommendations

The Technology Planning Team identified the above strategies that will affect students, families, teachers, central office team, principals, buildings, and the district. A summary of **action to be taken** based on the Strategies in order of priority follows: *(numbers following each item indicates the specific strategy involved)*

Strategies and Activities

Students

1. All students will learn technology and information literacy through common curriculum standards *aligned with District Curricula, NYS Content Guidelines and NYS Learning Standards*. 1.4.3
2. Each student's progress will be measured. 1.1.2, 1.1.3
3. Equity of Access; All HCSD students will have access to learning technologies at a district standard in all classrooms, libraries, and building labs. 1.1.6, 1.3.1
4. All students will have access to selected school media center materials and computer lab technology during extended open hours. 1.4.1
5. Network Storage – under the supervision of teachers, students should have the ability to maintain and manage individual folders to house their work at all grade levels. 1.1.3
6. All students will have the ability to turn in selected assignments and multi-media reports online. 1.2.3
7. Online Learning will be made available to teachers and students. 1.4.5, 1.4.6

Families

1. Parents will be able to learn about what is happening in school and classrooms via the internet and online resources. 1.2.2
2. Families may communicate with teachers and the school district via email. 1.2.7
3. Families may link to online homework and curriculum support resources through the district web site. 1.4.7, 1.1.1

Teachers

Effective use of technology enables teachers to meet the needs of diverse learners in ways that empower them to move beyond their own and others' expectations. Technology tools will be used to promote thinking and learning in ways that encourage the development of self-directed lifelong learners.

1. Online Learning will be made available to teachers and students. 1.4.5, 1.4.6
2. Teachers will have the ability to set up a Class Web Site to improve communication with colleagues and parents, and the community. 1.2.1
3. Consistent, reliable, and appropriate hardware will be available to teachers and students in accordance with district standards. 1.1.6

Curriculum work is an ongoing and collaborative effort that should incorporate a variety of resources, including technology, which are effective in helping all students reach the identified grade-level and/or content area goals. Teachers will facilitate the learning process, moving away from being only the dispenser of content and moving toward authentic teaching and learning.

4. Professional training will be made available to assist teachers in the integration of technology into teaching. 1.4.4
5. Teachers will have the opportunity to enhance district and state aligned curriculum with technology integrated activities. 1.4.4, 1.4.3
6. Teachers will strive to meet a district-wide expectation to integrate technology into teaching and learning in at least one unit each year. 1.4.4
7. Technology Coaching will be provided in the classroom 1.1.8
8. An instructional web site will be maintained where curriculum maps and lessons are electronically archived and shared among all staff. 1.1.1, 1.2.8
9. Teachers may apply for Technology Grants or make requests through the Technology Committee to meet specific needs beyond the district hardware standards. 1.1.12
10. Teachers will have the ability to access resources from home and online in the classroom – video streaming, instructional materials. 1.1.13

Teachers will use technology to document student achievement by maintaining an electronic grade-book, electronic portfolio of current documents, and will be encouraged to begin using the Internet and web site for communications with parents and students.

11. Rubric will be applied by teachers consistently across the District. 1.1.10, 1.2.8
12. Email and the [District Website](#) should become the district standard for communication – paper copies of most (non-confidential) communications are eliminated. 1.2.7
13. Online learning capabilities will be provided to expand the scope of differentiated instruction, authentic teaching and learning processes. 1.4.5, 1.4.6

Administration

1. Professional Development will be designed and provided for administrators so that district and building leaders have the knowledge to recognize and support the effective use of technology in teaching and learning 1.1.9
2. The district will move towards an increased digital internal communications process for inter/intra-staff communications. Email, intra-site announcements, electronic bulletins, and the [District Website](#) should become the district standard for communication. 1.2.7
3. The internet will be used as a primary information resource to gather and disseminate resources for the Homer community to learn about district schools. Each school building will maintain a current and active web site. 1.2.1, 1.2.2, 1.2.4, 1.2.5,
4. The District will move towards revising teacher evaluations to include assessment of technology integration into lessons *aligned with District Curricula, NYS Content Guidelines and NYS Learning Standards*. 2.2.2

Buildings

1. Building Administrators will seek annual representation to the District Technology Committee to communicate and coordinate technology issues throughout the district, and to evaluate and plan the use of technology in their buildings. It is recommended that the Library Media Specialist, Computer Instructors, BOCES Technology Trainers/Consultants, classroom teachers and teachers of technology skills be considered integral members of the committee. 2.1.1,
2. The organizational model for instructional technology support will be reviewed. BOCES Technology Trainers/Consultants, Library Media Specialists and Computer Instructors continue the *lead technology coaching role*, supporting in-classroom hands-on technology integration in all curricular areas K-12. 2.1.1, 1.4.4
3. Each building will audit its instructional rooms for cable access and work through the district to ensure that all rooms have working cable service. 1.2.6, 1.3.1
4. Each building will continually improve communication with the community with building information on the web. 1.2.5

District

1. Hardware and software standards will be equitable across the district and supported with district resources. This includes a 1:1 computing goal at the secondary level. 1.1.6
2. Board of Education will allocate funds to provide appropriate levels of hardware, software, and staffing to support the technology goals established by the school district. 1.3.3
3. No Child Left Behind (NCLB) requires Homer Central School to make use of technology in order to provide the general community, parents and students with a means of direct two-way communications with the schools and access to resources. These efforts will be supported at the district level. 1.1.3, 1.1.1, 1.2.1

4. Implementation of the web-based templates, Macromedia Contribute, and Blackboard will allow building staff and students to maintain a functioning class or building website. 1.1.4, 1.2.1, 1.2.3.
5. Only district approved hardware and software will be maintained and supported using district resources. (tech. support, upgrades, installation and repairs) 1.1.6, 1.3.2
6. A District Technology Committee will continue to revise acceptable hardware and software standards and to review new technologies as they emerge and to make recommendations about standards. 2.1.1
7. The District Technology Committee will devise and propose procedures that ensure technology purchases over the long-range are directly aligned with curriculum needs. 2.1.1
8. New teachers will be trained in district technology use, assessment, and district expectations during the orientation process. 2.1.2.
9. Documentation of student achievement in terms of the defined success of the Plan will be undertaken and coordinated through the Office of Instruction and Evaluation, Guidance Offices, Elementary Main Offices and supported by the Technology Office, reported yearly to the Technology Committee. 1.1.3
10. Technology Grant Application direction will be provided to the District Grant Writer and overseen by the District Technology Committee. 2.1.1
11. The district will maintain the district web site with user friendly access and exemplary design standards. Ongoing staff training will facilitate creation of teacher and class web sites. 1.2.5
12. Technology services and support will be coordinated and supervised through the Technology Department and the Director of Technology. 2.1.1
13. The District will adopt a budgetary cycle of maintenance and replacement of technology to provide consistent and reliable access at all levels over time. 1.3.3
14. The District will develop partnerships with local and state education institutions in cooperation in the implementation of the Plan. 1.4.6.
15. Administrators will convey to staff the expectation of integration of technology into the curriculum. 2.2.3

Technology Literacy and Curriculum Integration

Student Performance Standards, Goals, Skills, and Assessment

The performance standards for students are divided into four broad categories. Performance goals and accompanying skills within each category are to be introduced, reinforced, and mastered by students. These standards provide a framework for linking performance indicators within the New York State Learning Standards, integrating technology directly to support existing curriculum. Teachers can use these standards and profiles as guidelines for planning technology-based activities in which students achieve success in learning, communication, and life skills.

As Performance Goals and Skills are identified, Curricular Areas are also identified to indicate how assessments will occur.

K-2 Technology Literacy and Curriculum Integration

Use- Basic operations and concepts		
Performance Goals	Performance Skills	Curriculum Integration
Use input devices (mouse, keyboard), etc) to successfully operate computer and other technologies. (1)	Logging on and off the network properly Practice typing name or other simple tasks Identify basic functions of input, output, processing Launch and exit programs in the proper fashion Locate and properly use: Space bar, Enter key, Shift key, caps lock key, Control, Alt, & delete keys Mouse Functions: point, click, double-click Ability to execute print function, when needed	Grades 1-2; Observation, Discussion & Anecdotal record keeping

Homer K-2: Technology productivity tools, communications tools, research skills		
Performance Goals	Performance Skills	Curriculum Integration
Use a variety of media and technology resources for directed and independent learning activities. (1,3)	<p>Launch and use a variety of age and content appropriate programs</p> <p>Launch and properly use electronic resource materials</p> <p>Use paint and draw tools to create for art applications</p> <p>Students will use programs to reinforce and extend reading, math, science</p>	Grades K-2; Observation
Use a variety of media and technology resources for directed and independent learning activities. (1,2,3)	<p>Use age-appropriate programs for writing.</p> <p>Use age-appropriate programs to create and illustrate an original story.</p> <p>Use age-appropriate programs to re-tell a story.</p> <p>Search for and locate specific information from electronic resources.</p> <p>Use programs to present information, create stories, write biography, and share learning.</p> <p>Add graphics or clip art to a document.</p>	Grades K - 2 - activities would be age appropriate and evaluation combination of observation and review of product created
Communicate about technology using developmentally appropriate and accurate terminology. (1,2)	Identify computer and its components and explain their function or use. (Monitor, CPU, keyboard, mouse, printer)	Grades K-2 - observation, check sheet
Use developmentally appropriate multimedia resources (interactive books, educational software, and multimedia resources) to support learning. (1,2)	<p>Using technology to support learning; reading, writing, math, science.</p> <p>Use electronic resources to locate specific information or reinforce learning.</p> <p>Using age appropriate software, insert a digital image into a document or a presentation program,</p> <p>Using age-appropriate software add sound to a presentation.</p> <p>Create a presentation from a template or from scratch. (Age appropriate content and length)</p> <p>Gather data and record into a table, graph results using age appropriate software</p> <p>Create and interpret graphs.</p> <p>Write words, phrases, and finally sentences - age appropriate.</p>	Grades K-2, Observation and check sheets

Homer K-2: Technology problem-solving and decision-making skills.		
Performance Goals	Performance Skills	Curriculum Integration
Use technology resources for problem-solving, communication, illustration of thoughts and ideas, and stories (2,3)	Use simulation programs to role-play and make appropriate decisions within the context of the scenario. Illustrate concepts of sharing, courage, through pictures Choose best tool to <ul style="list-style-type: none"> when to use an encyclopedia, when to use a graphing program. 	Grade 1 -review of product Grade 2 – discussion, review of product, explanation of reasoning
Practice responsible use of multimedia products, as needed. (1,2)	Proper handling of add-on devices: microphone, speakers, sound recorders, digital cameras	Grades K-2- observation
Gather information and communicate with others using telecommunications.	Through teacher web site, share work of students with others (student not identified) Share ideas, stories, other classrooms information about local community ,digitally share illustrations created by students	Grade 1 & 2 - communication summarized by teacher

Homer K-2: Ethics- Social, ethical and human issues		
Performance Goals	Performance Skills	Curriculum Integration
Demonstrate positive social and ethical behaviors when using technology. (4)	Proper use of computer, no abuse of equipment, no food or drink near the computers, hands clean before using computer Beginning understanding of ownership of ideas (from resources) Basic network concepts: UserID, password, logging onto the network	Grades K-2, observation

Homer K-2: Curriculum Software Support		
Academic Area	Software	Curriculum Integration
ELA	ABC World, I Love Phonics, I Love Spelling	K-2
Math	Carnival Countdown, Graph Club, I Love Math, Math Zoo Zillions, Mathosaurus I, Mathosaurus II, Wide West Math	K-2
Reading	PM Storybooks ²	K-2
Writing, Reading	Kidspiration ³	K-2
Character Education	Choices: Taking Responsibility, On the Playground, Kids and the Environment	K-2

² Rigby PM Storybook Research, <http://www.harcourtachieve.com/c/@ycpbPgSx.jPeA/Pages/teaBevrandell.html>

³ Inspiration & Kidspiration Scientific Based Research, http://www.inspiration.com/download/pdf/SBR_summary.pdf

3-6 Technology Literacy and Curriculum Integration

Homer 3-6: Use- Basic operations and concepts		
Performance Goals	Performance Skills	Curriculum Integration
<p>Use keyboards and other common input devices (including adaptive devices when necessary) efficiently and effectively.</p> <p>Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide.</p>	<p>Students will understand the care and operation of a computer: booting up, shutting down, changing disk drives, logging on, logging off.</p> <p>Identify, understand, and explain the functions of the parts of a computer system: input and output devices, monitors, CPU, printer, mouse, keyboard, network, word-processing.</p> <p>Become familiar with the QWERTY keyboard.</p> <p>Move around the desk top using the: menu bar, return, escape, delete, backspace, shift key, space bar, arrow keys, function keys (CTRL, ALT), cap locks.</p>	Grade 3
	<p>Demonstrate their knowledge of correct care of computer equipment.</p> <p>Identify, understand, and explain function of the following: RAM, CPU, ROM, storage capacity of hard drives, cable, Internet, satellite, network terminology</p>	Grade 4
	<p>Identify and understand the functions of the following basic technology terms: database, file server, chips, spreadsheet, telecommunications, hypertext, virus, multimedia, and web.</p>	Grade 5

Homer 3-6: Technology productivity tools, communications tools, research skills		
Performance Goals	Performance Skills	Curriculum Integration
<p>Use general-purpose productivity tools and peripherals to support personal productivity, remediation of skill deficits, and facilitate learning throughout the curriculum.</p>	<p>Students will use the menu bar to save, close, open, and print.</p> <p>Write sentences using capitalization and punctuation.</p> <p>Use cut, copy, and paste.</p> <p>Select, use and create graphics to enhance word-processing.</p> <p>Search a database when given two criteria.</p> <p>Use the following terms and/or functions: file, row, cell, report, record, and column.</p>	Grade 3

Homer 3-6: Technology productivity tools, communications tools, research skills		
Performance Goals	Performance Skills	Curriculum Integration
<p>Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom.</p>	<p>Reach a keyboarding speed of 15 WPM.</p> <p>Write and edit short stories using paragraphs.</p> <p>Manipulate fonts, font sizes, and graphics into their written work, spacing, center.</p> <p>Use cut, copy, paste.</p>	<p>Grade 4</p>
<p>Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities.</p> <p>Determine which technology is useful and select the appropriate tool(s) and resources to address a variety of tasks and problems.</p>	<p>Demonstrate their knowledge of correct care of computer equipment</p> <p>Review and practice keyboarding skills to reach a keyboarding speed of 20 WPM.</p> <p>Publish their stories and reports.</p> <p>Enhance a one-page, text-based word processor document by: creating borders, distinguishing titles/subtitles.</p> <p>Correctly use the following functions: spell check, thesaurus, graphics, and print options.</p> <p>Use and manipulate a database for: sorting, terms, list view, saving, moving around, form view, printing, concept and purpose.</p> <p>Use and manipulate a spreadsheet for: prediction, sorting, charts and graphs.</p> <p>Students use creativity and authoring tools to develop more complex reports, presentations, and projects in a variety of subject areas.</p>	<p>Grade 5</p>

Homer 3-6: Technology productivity tools, communications tools, research skills		
Performance Goals	Performance Skills	Curriculum Integration
Continued	<p>Identify and understand the functions of the following: scanner, multimedia, projection systems, and digital camera.</p> <p>Review and practice keyboarding skills to reach a keyboarding speed of 25 WPM.</p> <p>Apply their keyboarding and draw program knowledge as they publish their stories and reports.</p> <p>Correctly use the following functions: thesaurus, outline, spell and grammar check, margins, columns, graphics, page format.</p> <p>Create and edit databases.</p> <p>Use and manipulate a spreadsheet with formulas.</p> <p>Create several types of graphs to represent data.</p> <p>Create multimedia presentations.</p> <p>Use the Internet easily for multiple purposes.</p>	Grade 6

Homer 3-6: Social, ethical and human issues		
Performance Goals	Performance Skills	Curriculum Integration
Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide.	Students will exhibit respect for public and private space.	Grade 3, 4, 5, 6
	Use the Internet and analyze a website to determine whether it is a reliable source of information.	Grade 4
Discuss basic issues related to responsible use of technology and information and describe personal consequences of inappropriate use.	Understand the following issues as they relate to the use of technology: copyright, file security, and sharing of resources.	Grade 5, 6
	Exhibit respect for authorship.	Grade 6

Homer 3-6: Technology problem-solving and decision-making skills.		
Performance Goals	Performance Skills	Curriculum Integration
<p>Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem solving, self-directed learning, and extended learning activities.</p> <p>Determine which technology is useful and select the appropriate tool(s) and resources to address a variety of tasks and problems.</p> <p>Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources.</p>	Students can read a web page for information needed for class work.	Grade 3
	Use the Internet and analyze a website to determine its reliability as a source of information.	Grade 4
	Articulate the differences between print-based resources and on-line sources of information.	Grade 5
	<p>Make decisions about information they find from a variety of sources and determine which information is most appropriate for their work.</p> <p>Evaluate, select, and use various media for presentations based on their effectiveness in accomplishing the task and purpose of the presentation.</p>	Grade 6

Homer 3-6: Curriculum Software Support		
Academic Area	Software	Curriculum Integration
Developmental Typing	Type to Learn, Typing Tutor, Mavis Beacon	3-6
Reading	Accelerated Reader ⁴ , Star Reading, Academy of Reading	3-6
Concept Mapping	Inspiration	3-12

⁴ Accelerated Reader Research Listings, http://www.trelease-on-reading.com/ar_studies.html

7-8 Technology Literacy and Curriculum Integration

Homer 7-8: Use -Basic operations and concepts		
Performance Goals	Performance Skills	Curriculum Integration
<p>Apply strategies for identifying methods to use technology with network computers, stand-alone computers and their various input devices.</p> <p>Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.</p> <p>Demonstrate an understanding of concepts underlying hardware, software, network connectivity, and of practical applications to learning and problem solving.</p>	<ol style="list-style-type: none"> 1. Differentiate logical and actual directory structures. 2. Demonstrate good file management techniques. 3. Use tool bars, menus, and keystrokes effectively. 4. Use correct technological vocabulary. 5. Use productivity tools and peripherals to support educational objectives. 	<p>All Subjects- Students should be able to manipulate and speak in terms of the current technology. That will improve their study skills in organization skills. That includes: opening and saving documents to various drives, mounting and dismounting removable drives to transport files to and from school and home, organizing documents electronically, using multiple strategies for performing tasks with various software, and conversing in correct technological terms.</p>

Homer 7-8: Technology productivity tool, communications tools, research skills		
Performance Goals	Performance Skills	Curriculum Integration
<p>Use content-specific tools, software, and simulations (e.g., environmental probes, exploratory environments, Web tools) to support learning and research</p> <p>Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom.</p> <p>Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom.)</p>	<ol style="list-style-type: none"> 1. Use content-specific simulations to support learning. 2. Use exploratory environments to support learning. 3. Differentially organize information according to differing problems. 4. Create simple simulations. 5. Create charts from collected data and label it appropriately. 6. Predict future or past results from a chart created by limited data. 7. Create and use formulas containing simple functions. 8. Design, develop, and present a slide show presentation that communicates a curriculum concept. 9. Design, develop, and post a web page that communicates curriculum concepts 	<p>Home & Careers</p> <ul style="list-style-type: none"> • Investigate career paths (Career Futures) <p>Technology</p> <ul style="list-style-type: none"> • Create orthographic and isometric projection.(AutoCAD LT) • Investigate the strength of various bridge designs. (Bridge program) <p>Art</p> <ul style="list-style-type: none"> • Design a fabric design (Photo Shop) • Create videos such as Claymation, or a documentary. (I-Mac) • Use of digital photography <p>Social Studies, Language Arts.</p> <ul style="list-style-type: none"> • Create graphic organizer, web rings, time lines (Inspiration) • Participate in class discussions groups online using correct grammar and spelling (Black Board) • Create a slide presentation that can be used with a verbal presentation to deliver learned curriculum. (Power Point) • Create a slide show that can demonstrate a student's knowledge of learned curriculum. (Power Point) • Create a web page that can demonstrate a student's knowledge of learned curriculum. (Dream Weaver) • Use a word processor to enhance students' writing skills by proper use of formatting, indenting, tables, spelling, and grammar tools. (i.e. create headers, graphic organizers, bibliographies) (Word) • Research the Internet for appropriate primary sources utilizing the latest in search techniques. (Search engines)

Homer 7-8: Evaluation Technology problem-solving and decision-making tools		
Performance Goals	Performance Skills	Curriculum Integration
<p>Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems.</p> <p>Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum.</p>	<ol style="list-style-type: none"> 1. Analyze and explain graphical representations. 2. Select the best chart type to display data. 3. Distinguish between the uses of print and non-print media. 4. Synthesize information from non-print media. 5. Select and use the appropriate technology tools and resources to complete educational goals. 6. Explain how inaccurate or incomplete information can lead to faulty conclusions. 7. Compare and contrast non-print information sources for accuracy, relevancy, comprehensiveness, and bias. 8. Analyze information from a variety of sources to determine its applicability to a specific problem. 9. Assess both the process and the product of a specific information search. 10. Use multiple and diverse information sources to answer questions or resolve problems. 	<p>Science</p> <ul style="list-style-type: none"> • Collect data with the use of collection tool and a TI83 calculator, then export to a spreadsheet for analysis. (Calibration and collection tools) • Analyze data (Excel) • Use various combinations of software to represent curriculum learned. Students should move freely between Spreadsheets, Word Processing, Presentation, and Organizer software to utilize the best attributes of each within a report. <p>All Subjects</p> <ul style="list-style-type: none"> • Choose the best type of chart to graph given specific data and create it. (Excel) • Integrate printed and non-print medium to complete class assignments. • Use Primary sources from the web. Develop techniques to research source for accuracy, comprehension and bias, and then use the source to defend a point of view, or to compare and contrast ideas. • Utilize On-line databases available as library resources to find information on various topics. (ex. CERF, EBSCO, Grolier Online, Health Reference, Twayne's Authors Series) • Web Quests that incorporate the use of Internet resources and various other presentation programs. (Ex. Quia, Black Board, Brain Pop)

Homer 7-8: Ethics, Social, ethical and human issues		
Performance Goals	Performance Skills	Curriculum Integration
<p>Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems.</p> <p>Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society.</p> <p>Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse.</p>	<ol style="list-style-type: none"> 1. Document all information resources used. 2. Gain permission for the use of intellectual property. 3. Ethically and legally present all intellectual property gathered from outside sources. 4. Analyze and discuss the consequences of the misuse of information and/or technologies 	<p>All Subjects</p> <ul style="list-style-type: none"> • Create clearly documented bibliographies correctly formatted (Word) • Write a business letter, requesting permission from the owner of intellectual property. (Word) • Document all sources correctly. • Use interactive web sources to research intellectual property. • Use library resources available at district web site for research.

Homer 7-8: Technology Literacy – Student Assessment

Literacy Element	Level: 4 Proficient	Level: 3 Developing	Level: 2 Emerging	Level: 1 New	Score
Identify and use the H:, S:, A:, and removable drives.	I can open and Save As files from one drive to another without any assistance.	I can open and Save As files from one drive to another with some assistance.	I can pen and Save As files from one drive to another with assistance.	I am not familiar with network and local drives	
Mount and dismount a removable drive	I can attach and safely detach a removable drive without any assistance	I can attach and safely detach a removable drive with some assistance.	I can attach and safely detach a removable drive with assistance.	I do not know how to attach and safely detach a removable drive.	
Create folders and maintain an organized personal drive.	I can create new folders and organize my documents.	I can create new folders and organize my documents with some help.	I need help to organize my documents efficiently.	I do not know how to create new folders or organize my documents.	
Use toolbars, menus and keyboard shortcuts in various software.	I can perform tasks in various software using at least 2 strategies without asking for help.	I can perform tasks from various software using at least one strategy without asking for help.	I can perform some tasks in various software programs. I usually need to look up or ask for help with many tasks.	I use very few strategies to accomplish tasks.	
Use correct technological vocabulary	I always use the correct technological vocabulary	I use correct technological vocabulary most of the time.	I use correct technological vocabulary some of the time.	Technological terms are not a part of my vocabulary	
Use content specific tools.	I can create an orthographic projection in AutoCAD LT without any assistance.	I can create an orthographic projection in AutoCAD LT with some assistance.	I can create an orthographic projection in AutoCAD LT with guided assistance.	I have never used the AutoCAD LT software program.	
Use exploratory environments.	I can create geometrical transformations and quadrilaterals without assistance	I can create geometrical transformations and quadrilaterals with some assistance.	I can create geometrical transformations and quadrilaterals with guided assistance.	I have never used an exploratory environment like Geometer Sketchpad.	
Use exploratory environments.	I can create a graphical organizer, time line, web ring using Inspiration	I can create a graphical organizer, time line, web ring using Inspiration with some assistance.	I can create a graphical organizer, time line, web ring using Inspiration with guided assistance.	I have never used an exploratory environment like Inspiration.	
Create charts from collected data.	I can choose the best type of chart to graph given the data and create it without assistance.	I can choose the best type of chart to graph given the data with some assistance. I then can create it without assistance.	I can choose the best type of chart to graph given the data and create it with assistance	I do not know how to select the best type of chart to graph and I have not created a chart electronically before.	
Predict future or past results from a chart created by limited data.	I can create a trend line electronically without assistance.	I can create a trend line electronically with some assistance.	I know what a trend line is, but need help in creating one electronically.	I do not know what a trend line is.	
Create and use formulas containing simple functions.	I can use a spreadsheet program to analyze data for all of the following without help. Total, mean, median, mode.	I can use a spreadsheet program to analyze data for some of the following without help. Total, mean, median, mode.	With assistance I can use a spreadsheet program to analyze data for all of the following: Total, mean, median, mode.	I have never used functions in a spreadsheet program before.	

	Level: 4 Proficient	Level: 3 Developing	Level: 2 Emerging	Level:1 New	Score
Design, develop, and present a slide show presentation that communicates a curriculum concept as a backdrop to a verbal presentation.	I can create a slide show presentation that can be used with a verbal presentation that contains complex elements without assistance.	I can create a slide show presentation that can be used with a verbal presentation that contains some complex elements without assistance.	I can create a slide show presentation that can be used with a verbal presentation that contains basic elements without assistance..	I need to be assisted in making a slide show presentation that can be used with a verbal presentation.	
Design, develop, and present a slide show presentation that communicates a curriculum concept that requires no narration..	I can create a slide show presentation that can be used that contains complex elements such as automation, graphic objects, without assistance.	I can create a slide show presentation that can be used that contains some complex elements such as automation, graphic objects, without assistance.	I can create a slide show presentation that can be used that contains complex elements such as automation, graphic objects, with assistance.	I need to be assisted in making a slide show presentation that can stand alone without narration..	
Design, develop, and post a web page that communicates curriculum concepts.	I can create a basic web page without assistance using a web-authoring program.	I can create a basic web page with some assistance using a web-authoring program.	I can create a basic web page with assistance using a web-authoring program.	I have never created a web page.	
Use telecommunications collaborative tools to collaborate with peers, experts and others on curriculum related problems where appropriate.	I actively participate in electronic class discussion groups using good grammar and spelling to express myself.	I sometimes participate in electronic class discussion groups using good grammar and spelling to express myself.	I participate on a very irregular basis in electronic class discussion groups using good grammar and spelling to express myself.	I do not participate in electronic class discussion groups.	
Create a word-processed document to complete a class assignment.	I can correctly use formatting tools; create an appropriate header, and number pages without assistance.	I need some assistance to use tools such as formatting, header/footers and numbering pages.	With guided assistance I can use tools such as formatting, header/footers and numbering pages	I have not used formatting tools, header/footers and page numbering is a word processed document.	
Demonstrate correct use of indents, hanging indents, and tables.	I can: <input checked="" type="checkbox"/> Use tabs and indents when needed. <input checked="" type="checkbox"/> Create a bibliography using hanging indents and <input checked="" type="checkbox"/> Create a graphic organizer using tables Without assistance.	I can: <input checked="" type="checkbox"/> Use tabs and indents when needed. <input checked="" type="checkbox"/> Create a bibliography using hanging indents and <input checked="" type="checkbox"/> Create a graphic organizer using tables With some assistance.	I can only: <input checked="" type="checkbox"/> Use tabs and indents when needed. <input checked="" type="checkbox"/> Create a bibliography using hanging indents and <input checked="" type="checkbox"/> Create a graphic organizer using tables Some of the time with some assistance..	I cannot: <input checked="" type="checkbox"/> Use tabs and indents when needed. <input checked="" type="checkbox"/> Create a bibliography using hanging indents and <input checked="" type="checkbox"/> Create a graphic organizer using tables Without assistance.	
Demonstrate the use of various strategies for searching the web.	I use a variety of search engines and have many strategies for performing searches on the web.	I use a favorite search engine but have many strategies for performing searches on the web.	I use a favorite search engine and have some luck in finding the topic I am searching for on the web.	I have trouble finding answers to my questions on the web.	

	Level: 4 Proficient	Level: 3 Developing	Level: 2 Emerging	Level:1 New	Score
Analyze and explain graphical representations.	I use a combination of spreadsheets, word processing and presentation software to create reports for class without assistance.	I use some combinations of spreadsheets, word processing and presentation software to create reports for class without assistance.	I can use spreadsheets, word processing and presentation software but do not insert information from one to another.	I do not use all of the following software: Spreadsheet Word processing Presentation.	
Distinguish between the uses of print and non-print media.	I regularly integrate print and non-print media in class assignments using multiple and diverse information sources to answer questions or resolve problems	I sometimes integrate print and non-print media in class assignments using multiple and diverse information sources to answer questions or resolve problems.	I use either print or non-print media in class assignments, but not both in the same assignment	It is easier to use only information from the web.	
Synthesize information from non-print media.	I use primary source information from the web; research its source for accuracy, relevancy, comprehensiveness and bias, then put the information into my own words.	I use primary source information from the web; sometimes I research its source for accuracy, relevancy, comprehensiveness and bias, and then put the information into my own words.	I use primary source information from the web; putting the information into my own words I usually accept the authenticity of the information..	I use primary sources information from the web, I then copy and paste it into the class assignment.	
Ethically and legally present all intellectual material gathered from outside sources..	I always include a bibliography or work cited for every class assignment that I have used printed or electronic resources for.	I include a bibliography or work cited for some class assignments that I have used printed or electronic resources for.	I occasionally include a bibliography or work cited for some class assignments that I have used printed or electronic resources for.	I do not include a bibliography or work cited unless instructed to do so by my teacher.	

Homer: 9-12 Technology Literacy and Curriculum Integration

Homer 9-12: Basic operations and concepts		
Performance Goals	Performance Skills	Curriculum Integration
Routinely and effectively use available technology for information resources to meet needs for collaboration, research, publications, communications, and productivity.	<ol style="list-style-type: none"> 1. Take notes/gather data from non-print sources 2. Understand and use the more advanced features of word processing, spreadsheets, and data-based software 3. Prepare multimedia presentations demonstrating a clear sense of audience and purpose 4. Access, select, collate, and analyze information obtained from a wide range of sources such as research databases, foundations, organizations, national libraries, and various networks including the internet 5. Utilize electronic networks to share information 6. Model solutions to a range of problems in mathematics, science and technology using computer simulations 	Science - 1, 2, 3, 4, 6 Social Studies - 1, 2, 3, 4, 6 Math - 2, 6 Language Arts - 1, 2, 3, 4, 5 Foreign Language - 1, 2, 3, 4, 5 Art/Music - 4, 6 Technology (Comp, Tech, Lib) 1, 2, 3, 4, 5, 6 Health/PE - 1, 3, 4, 6

Homer 9-12: Technology productivity tools, communications tools, research skills		
Performance Goals	Performance Skills	Curriculum Integration
Select and apply appropriate technology tools for research, information analysis, problem solving, and decision-making in content learning.	<ol style="list-style-type: none"> 1. Receive news reports from abroad and work in groups to produce newspapers reflecting the perspectives of different countries 2. Use technology to collaborate with others to contribute to a content-related data base 3. Select and apply technology tools to support research in content learning 4. Select and apply technology tools for decision making, problem solving and information analysis 5. Demonstrate a variety of ways to use non-print information to resolve problems and/or answer questions 	Science – 3, 4, 5 Social Studies – 1, 3, 4, 5 Math - 4 Language Arts – 2, 3, 4, 5 Foreign Language – 1, 3, 4 Art/Music – 3, 4 Technology (Comp, Tech, Lib) 1, 2, 3, 4, 5 Health/PE – 3, 4, 5

** A Software Inventory of all curricular areas is to be available on the school intranet website for Sept. 2004. Corresponding links verifying scientific based research of effectiveness of the software to improve student academic achievement is to accompany the inventory wherever the research is available. Guidelines for Scientific Base Research are available from the Center of Learning Technologies OCM BOCES website of the State Educational Technology Directors' Association (SETDA) Toolkit link to [Scientific Based Research](#).

Professional Staff Development

Philosophy:

1. Professional development opportunities available to every staff member, including support personnel and administration.
2. Technology skills are taught in the context of how they can be integrated into instruction and/or classroom management for the end goal of improving student achievement.
3. Staff members have input into the technology skills they are to learn, and the type of instruction that would be most effective for obtaining them.
4. Staff members have long-term support to integrate technology into their teaching and classroom management.
5. Technology skills are best learned in small group settings, providing for individualized attention.
6. Staff members often learn best from their peers.
7. Staff members are offered a variety of instructional opportunity types (e.g. after school courses, peer mentoring, school day release time training, online classes ... etc.).
8. Staff development activities are optimized based upon feedback from participants.

Staff development opportunities:

1. Staff initiated professional development activities
 - Independent study (e.g., online training, tutorials, professional reading)
 - Staff initiated building/department level workshops/presentations
 - Building/department level collaborative projects
 - Peer mentoring
 - Visitation
 - Conferences/Workshops
 - Professional authoring
2. District initiated professional development activities
 - School day, project-specific training sessions
 - New Teacher Orientation sessions
 - Sharing of technology integration accomplishments:
 - After school courses/sessions
 - Online Courses
 - Staff Development Day Activities
3. Regional professional development activities
 - Homer-Cortland Teacher Center offerings
 - School Quality Services (SQS) courses
 - Local college courses
 - Regional, state, or global Online courses
 - Model Schools Programs coordinated through OCM BOCES

Staff development mandates:

1. No Child Left Behind- “high objective uniform State standard of evaluation” (HOUSSE) – New York State implements the HOUSSE rubric of evaluation to meet the federal “highly qualified” public school teacher requirement.
The NCLB requires all public school teachers of core academic subjects to be “highly qualified” for all the core academic subjects they teach by the end of school year 2005-2006. To be “highly qualified,” teachers must have a bachelor’s degree, be certified for the classes they are teaching (except certain charter school teachers) and demonstrate subject matter competency in all core subjects they teach. The “high objective uniform State standard of evaluation” (HOUSSE) is one option that some teachers can use to demonstrate their subject matter competency.
2. New York State 175 hour over 5 years mandate for all teachers certified after February 2004.
3. New York State 75 hours over 5 years mandate for all teaching assistants certified after Feb. 2004.
4. Homer Teachers’ Association Contract- Each year HTA bargaining members are to obtain 7 hours of approved professional staff development, (inservice hours) beyond the school day.
5. Professional staff development activities are coordinated through District Professional Staff Development Committee receiving input from the staff and administration.

Guidelines for Development of Technology Integration Programs:

To further support improving staff technology skills and skills to integrate technology in the learning process, an annual “[Self-Evaluation of Technology Skills](#)” will be offered for all staff. The results of the Self-Evaluation will be utilized to coordinate opportunities for all staff to improve technology integration in the curriculum.

Development of training programs will follow the eight stated philosophical professional staff development beliefs above and guidelines from NCREL [Professional Development Program Guidelines](#)⁵.

Assessments of effectiveness of technology integration in the curriculum will be emphasized in staff development technology training programs. Guidelines for this are available from [Common Data Elements for Education Technology Assessment](#)⁶ and [SETDA Common Data Elements Project](#)⁷.

Correlation of technology integration in the curriculum with New York State Standards and Curriculum Guidelines will be emphasized in staff development training programs. Guidelines for this are available from the [University of the State of New York Curriculum](#)⁸ Resources website and the New York State Education Department [Curriculum, Instruction, and Instruction Technology](#)⁹ website.

⁵ “[Successful Professional Development Programs Are](#)”, NCREL – North Central Regional Educational Laboratory, <http://www.ncrel.org/engage/framework/sys/dev/sysdevpr.htm>

⁶ [Common Data Elements for Education Technology Assessment](#), SETDA National Leadership Toolkit, <http://clt.ocmboces.org/techplans2004/SETDA%20TOOLKIT/CDE/CDE06.htm>

⁷ [SETDA Common Data Elements Project](#), SETDA National Leadership Toolkit, <http://clt.ocmboces.org/techplans2004/SETDA%20TOOLKIT/CDE/CDE07.htm>

⁸ [University of the State of New York Curriculum](#), State Education Department, <http://usny.nysed.gov/teachers/curriculum.html>

⁹ [Curriculum, Instruction, and Instruction Technology](#), State Education Department, <http://unix32.nysed.gov:9210/ciai/home.html>

Plan Administration and Budget

Homer Central School District maintains a complete accurate inventory of all equipment as required by the State of New York, periodically reviewed by the State Comptroller's Office. Equipment is procured following the laws, guidelines and regulations of the State of New York. Disposal of equipment is also done according to the laws, guidelines and regulations of the State of New York. This inventory includes approximately 1,100 client stations (desktop and laptops), 30 servers, 240 printers, switches, firewalls, UPS's, wireless base stations, projection devices and other network equipment. A complete equipment list is maintained in the district offices. Most all equipment is leased through OCM BOCES where a detailed annual list is also available.

2007-2010

The District targets a five year replacement cycle for major technologies (client stations, servers, peripherals) and support a similar replacement cycle (as needed) for critical components (passports, firewalls, and other "edge devices").

2007-2008

For the 2007-2008 school year, we anticipate replacing at least one-hundred client stations, two servers, and ten switches (**Budget Item COSER 562**). We also plan to continue to support the Math A program through Carnegie Learning's "Cognitive Tutor".¹⁰ All other software and digital services are expected to continue as they have in the past. This would include items such as MS Office Licenses, curriculum support software and network service software (Anti-virus subscriptions, e-mail licenses, back-ups services, web services ... etc.) Other items identified for funding in 2007-2008 are described in the "[Action Strategies and Activities for Achievement of Goals](#)" section of this plan.

Budget 2007-2008

The current budget for technology related items for 2007-2008 is distributed among a variety of services. State Aid, BOCES State Aid, Federal Aid, E-Rate formulas all support the funding of these services. These are services the district annually subscribes to through OCM BOCES and CNYRIC. A description of these services follows. Not reflected here are funds supported by grants, Teacher Center Funding, or miscellaneous local budgeted items not available through BOCES (projection device bulbs for example).

Funding Sources: Local – this includes support from local operations, BOCES AID, and STATE AID
 GRANT- this refers to the annual Teacher Center Grant supported by the State of New York
 E-Rate – this identifies items that are currently eligible under existing E-Rate Guidelines

COSER	Code	Department	Funding Source
540	CRC	Curriculum Resource Center	Local
541	TSR	Technical Services and AV Repair	Local
547	SQS	School Quality Service – Staff Training	Local
562	CLT	Center for Learning Technologies	Local
562	LSE562	Lease - Instructional	Local
562	TIS562	Technology Infrastructure Support - Instructional	Local
563	MSP	Model Schools – Staff Training	Local
601	TLC	Telecommunications	E-Rate &

¹⁰ Carnegie Learning, [Research Reports](http://www.carnegielearning.com/research/research_reports/), http://www.carnegielearning.com/research/research_reports/

			Local
602	TIC	Telecommunications Interconnect Service	E-Rate & Local
620	DWS	Data Warehouse Services	Local
620	FSS	Financial Support Services	Local
620	FWS	Food Management Support Services	Local
620	INT	Internet Services	E-Rate & Local
620	NCL	Telecommunications Network Connection Line Cost	E-Rate & Local
620	PRI	Priority Services	Local
620	SED	Special Education Applications	Local
620	SIS	Student Support Services	Local
620	TIS620	Technology Infrastructure Support - Admin	E-Rate & Local
620	TSS	Test Scoring Services	Local
Total			\$708,421.85

Additional Items for Budget

		Department	Funding Source
		IT Staff Costs	Local
		New Staff Credit Hours, Masters Degree	Local
		Cortland-Homer Teacher Center	Annual State Grant
		District Cell Phone Costs	E-Rate & Local
Total			\$293,900.00

Total Amount \$1,002,321.85
 Total Cost for non- E-rate items.. \$ 809,915.19

Budget 2008-2010

Current state aid funding is not available beyond 2007-2008. Also the cost BOCES services are not available beyond 2007-2008. If current state aid levels are maintained without additional state mandates and the economy becomes stable, and the costs of BOCES services does not increase, it is expected the district will sustain current levels of funding technology, support to technology, and staff development related to integration of technology into the curriculum. We do not expect any increases in funding technology unless the district receives additional state aid, additional federal aid, or additional funding from other sources.

2008-2009

For the 2008-2009 school year, we anticipate replacing at least one-hundred client stations, two servers, and ten switches (**Budget Item COSER 562**). We also plan to continue to support the Math A program through Carnegie Learning's "Cognitive Tutor".¹¹ All other software and digital services are expected to continue as they have in the past. This would include items such as MS Office Licenses, curriculum support software and network service software (Anti-virus subscriptions, e-mail licenses, back-ups services, web services ... etc.) Other items identified for funding in 2008-2009 are described in the "[Action Strategies and Activities for Achievement of Goals](#)" section of this plan.

¹¹ Carnegie Learning, [Research Reports](http://www.carnegielearning.com/research/research_reports/), http://www.carnegielearning.com/research/research_reports/

Budget 2008-2009

The current budget for technology related items for 2008-2009 is distributed among a variety of services. State Aid, BOCES State Aid, Federal Aid, E-Rate formulas all support the funding of these services. These are services the district annually subscribes to through OCM BOCES and CNYRIC. A description of these services follows. Not reflected here are funds supported by grants, Teacher Center Funding, or miscellaneous local budgeted items not available through BOCES (projection device bulbs for example).

Total Amount \$1,042,414.72
Total Cost for non- E-rate items.. \$ 842,311.80

2009-2010

For the 2009-2010 school year, we anticipate replacing at least one-hundred client stations, two servers, and ten switches (**Budget Item COSER 562**). We also plan to continue to support the Math A program through Carnegie Learning's "Cognitive Tutor".¹² All other software and digital services are expected to continue as they have in the past. This would include items such as MS Office Licenses, curriculum support software and network service software (Anti-virus subscriptions, e-mail licenses, back-ups services, web services ... etc.) Other items identified for funding in 2009-2010 are described in the "[Action Strategies and Activities for Achievement of Goals](#)" section of this plan.

Budget 2009 -2010

The current budget for technology related items for 2009-2010 is distributed among a variety of services. State Aid, BOCES State Aid, Federal Aid, E-Rate formulas all support the funding of these services. These are services the district annually subscribes to through OCM BOCES and CNYRIC. A description of these services follows. Not reflected here are funds supported by grants, Teacher Center Funding, or miscellaneous local budgeted items not available through BOCES (projection device bulbs for example).

Total Amount \$1,084,111.31
Total Cost for non- E-rate items.. \$ 876,004.27

CNYRIC (Central New York Regional Information Center) Service Areas

[Financial Support Services](#) - MUNIS, Tax roll payment, check services, professional development tracking.

[Internet Services](#) - Bandwidth, Filtering, Web Server Space

[Lease - Admin](#) - Technology hardware and software leases as well as Xerox leases.

[Lease - Instructional](#) - Technology hardware and software leases as well as Xerox leases.

[Priority Services](#) - Server, UPS, Switch.

[School Food Management Services](#) - including support, equipment service, warranty coverage

[Special Education Applications](#) - Special Education SIS Management, Medicaid processing, IEP Direct

[Student Support Services](#) - Student Information Systems, Grade Machine, My Gradebook, PDA, Mac/Win School, ID cards, STEP reporting.

[Technology Infrastructure Support - Admin](#) - Network, virus, modem and router maintenance, firewall

[Technology Infrastructure Support - Instructional](#) - Network technician, video conferencing, hardware acquisition

[Telecommunications](#) - Base service, actual expenses, and support

[Telecommunications Interconnect Service](#) - Telephone and E-Rate applications

[Telecommunications Network Connection Line Cost](#) - Network connections, Fiber lease

[Test Scoring Services](#) - Scoring and reporting services for NYS Grade 4 and 8, Regents, LEAP, CAT, TAP, SAT.

New York State Aid Reports

Periodic reports are available from <http://www.nysed.gov/stateaid/dist/a110701.html> for the Homer Central School District.

¹² Carnegie Learning, [Research Reports](#), http://www.carnegielearning.com/research/research_reports/

Technology Plan Assessment

Program Assessment

An annual analysis is done to review assessments of these following areas.

- Student Academic Achievement
 - This is done through the District Office of Instruction and Evaluation. Periodic reports are made to the Board of Education from the Administrators
- Student Technology skill development
 - This is done at the classroom level by instructional staff, and by students in a self-assessment survey.
- Staff Technology skill development
 - This is done through the Staff Self-Analysis Survey.
- Network status: bandwidth analysis, reliability
 - This is reviewed quarterly by the District Network Administrator.
- Technology access for students and staff
 - This is reviewed quarterly by the District Director of Technology with the District Technology Committee.
- Technology/Instructional support effectiveness
 - This collaborative assessment is performed by staff with District Administration.

Consideration will be given to an online technology program assessment tool such as [enGauge® Online Assessment Introduction](#)¹³.

Technology Plan Assessment and Evaluation

A year-end report reflective of program assessment shall be prepared for the administration indicating the successes of the Technology Plan as well as areas that are problematic.

*** Quarterly evaluations of the technology plan are conducted to determine if a change in direction is needed to more effectively support the goals of the district. Any program change or hardware replacement, maintenance or increase will be done in conjunction with these evaluations through a collaborative effort between District Administration, Curriculum and Technology Offices.

¹³ [enGauge® Online Assessment Introduction](#), North Central Regional Educational Laboratory, <http://www.ncrel.org/engauge/assess/assess.htm>

Staff Self-Evaluation

This tool is available on the Homer Central School Intra Website for staff to interactively support their professional development goals.

Please judge your level of achievement in each of the following competencies. Identify your current level of skill attainment. (Be honest, but be kind.)

Assessment - Teachers have a repertoire of assessment strategies which they use to shape their instructional decisions and to encourage students to take responsibility for their own learning					
	Level: 4 In Place	Level: 3 Developing	Level: 2 Emerging	Level: 1 Not in Place	Score
Uses variety of means and instruments	The assessment strategies used are highly varied in nature and very compatible with nature of product and/or process	The assessment strategies used are varied in nature and compatible with nature of product and/or process	The assessment strategies used may be varied, yet limited, and may or may not be compatible with product or process task.	The teacher uses only traditional means and instruments (ie. pencil and paper tests) to assess learning.	
Uses student performance data to plan instruction	The teacher uses individual student performance data from a variety of sources to plan appropriate instruction to meet individual needs.	The teacher uses individual student data from several sources to plan instruction to meet individual needs.	The teacher uses a limited amount of student data to plan instruction that may not be directly targeted to individual student need.	The teacher does not use or ignores performance data to plan instruction.	
Involves students in assessing own learning	The assessment includes measures that guide student self-assessment and reflection on products and processes including ongoing use of specific questions, checklists or rubrics.	The assessments includes measures that guide student self assessment and reflection on final product that take form of specific questions, checklists or rubrics.	The assessment includes measures that ask students to reflect in general on their own learning.	The teacher is the only person who reflects on product or process of student performance.	
Regularly analyzes, evaluates and strengthens quality and effectiveness of work	Analysis of current practice is conducted regularly and specifically and leads to higher quality, more effective work.	Analysis of current practice to strengthen quality effectiveness of work is specific and conducted regularly.	Analysis of current practice to strengthen quality and effectiveness of work is general and not conducted regularly.	The relationship between quality and effectiveness of work and analysis of current practice does not exist.	
Communicates with students, families, and other audiences about student progress	The teacher communicates with all students and families as well as other "real" audiences about student progress.	The teacher communicates with students and families and some "real" audiences about student progress.	The teacher communicates with students and families on a limited basis about student progress.	The teacher is the only person for whom student produces work. Sole purpose of assessment is to measure/test.	
Practice is reviewed, assessed, and adjusted based on student need and performance.	Goals based on student need/performance are specific and derived through analysis of current practice.	Goals based on student need/performance and practices are specific and linked to current practice.	Goals based on student need/performance and practices are general and/or unrelated to analysis of current teacher practice.	The relationship between practice and student need/performance does not exist.	

Content- Teachers know the subjects they teach and how to teach those subjects so that students learn the content

	Level: 4 In Place	Level: 3 Developing	Level: 2 Emerging	Level: 1 Not in Place	Score
Content Appreciation: Appreciate how knowledge in subject is created, organized, and linked	Teacher has highest degree of knowledge, and makes adaptations for all learning styles in the classroom. Teacher often takes the lead in consulting with teachers of other disciplines, and participates in many cross curricular studies and projects. Teacher demonstrates awareness of curriculum as a whole and understands his/her roles and responsibilities within that curriculum.	Teacher has an appreciation of different learning styles and makes adaptations for some individual styles. Teacher willingly consults with teachers of other disciplines and participates in cross curricular studies and projects. teacher understands that there is a larger curriculum for the student and is aware that there are individual responsibilities within that curriculum.	Teacher has a limited appreciation of different learning styles, and makes few adaptations to support individual styles. Teacher will work with other professionals when asked or required to do so. Teacher is aware only of the curriculum that takes place at the classroom level.	Teacher does not understand or make adaptations for learning styles within the classroom. Teacher shows no interest in collaborating with other professionals and has little understanding of curriculum.	
Command specialized knowledge of how to convey a subject to students	Teacher has very strong and specialized knowledge of how to convey a subject to students	Teacher has a specialized knowledge of how to convey a subject to students.	Teacher has a generalized knowledge of how to convey a subject to students.	Teacher does not command specialized knowledge of how to convey a subject to students.	
Generate multiple paths to knowledge	Teacher consistently and appropriately uses multiple paths to knowledge.	Teacher uses multiple paths to knowledge in mostly appropriate ways.	Teacher uses multiple paths to knowledge in limited and at times contrived ways.	Teacher uses single path to knowledge	
Maintains up to date knowledge in content area taught and in methods of instruction and assessment	Teacher is continually studying and learning in order to maintain up to date knowledge and skills in specific content area taught and in methods of instruction and assessment.	Teacher has up to date knowledge and skills in specific content area taught and in methods of instruction and assessment.	Teacher is beginning to become up to date in knowledge and skills of specific content area taught and in methods of instruction and assessment.	Teacher is not up to date in content knowledge and in related instructional and assessment methods.	

Curriculum- The attainment of the Standards is impacted by a teacher's knowledge, management and delivery of a substantive curriculum

	Level: 4 In Place	Level: 3 Developing	Level: 2 Emerging	Level: 1 Not in Place	Score
Articulates and understands essential knowledge and skills	Essential knowledge and skills are clearly articulated and understood.	Essential knowledge and skills are articulated and/or understood.	Essential knowledge and skills can be partially articulated and/or understood.	Essential knowledge and skills can not be articulated and/or understood.	
Designs meaningful and relevant learning expression	Learning experience explicitly draws upon learners' personal experience to make natural connections to classroom experience.	Learning experience requires learners to "explain" without elaborating on connections between own knowledge, background and interest in classroom experience.	Learning experience forces contrived connections and relevancy between learners own experiences and classroom experience.	Learning experiences are designed in a way that prevents learners from making meaningful connections or to see relevancy between own personal experiences and classroom experience.	
Demonstrates alignment of curriculum, assessment, and instruction.	Alignment is clear and explicit for both curriculum and assessment and is embedded in instruction.	Alignment of curriculum, assessment, and instruction is clear.	Alignment of curriculum, assessment, and instruction can be inferred, but is not explicit.	Alignment of curriculum, assessment, and instruction is contrived and difficult to determine.	

Instruction (Student Development)- Teachers are responsible for managing and monitoring student learning. Sound instructional practices result in student achievement.

	Level: 4 In Place	Level: 3 Developing	Level: 2 Emerging	Level: 1 Not in Place	Score
Plan, Design, and Deliver instruction based on NYS and local standards	Instruction is embedded in and directly engages students towards mastery of both NYS and local standards	Instruction is embedded in and relates to NYS and local standards	Instruction is related to either NYS or local standards	Instruction is unrelated to NYS or local standards.	
Diagnose and Design Instruction based on learners' needs	Instruction is based directly on learners needs, worthy of time and effort and addresses diversity of lives, interests and backgrounds.	Instruction is based on learners needs and attends to diversity of lives, interests and backgrounds.	Instruction is peripheral to learners needs and does not reference diversity of lives, interests and backgrounds.	Instruction is unrelated to most if not all of learners' needs, lives, interests and backgrounds.	
Use Large and varied Repertoire of appropriate instructional strategies	Instructional strategies used are extremely varied and appropriate for range of learner needs.	Instructional strategies used are somewhat varied.	Limited use of varied instructional strategies.	The same instructional strategies are used for all learners; strategies are not varied.	
Select appropriate instructional materials and resources for learners' success.	The instructional materials and resources selected are extremely appropriate and allow learners to succeed at high levels.	The instructional materials and resources selected are somewhat appropriate and allow learners to succeed.	The instructional materials and resources selected are limited in terms of appropriateness and in leading to learner success.	The instructional materials and resources selected are not appropriate and do not lead to learner success.	
Delivers instruction through active involvement, frequent interactions, and variety of assessment	Learners actively work and interact with peers and teachers with assessment that is varied and allows for ongoing feedback and revision.	Learners interact with peers and teachers to share and give feedback on each others work using varied and appropriate assessments.	Learners interact on a limited basis with peers and teachers with more specific and appropriate assessments.	all learners work individually with very general or ambiguous assessments. all learners work individually with very general or ambiguous assessments.	

Leadership (Collaboration) -Teachers are members of learning communities

	Level: 4 In Place	Level: 3 Developing	Level: 2 Emerging	Level: 1 Not in Place	Score
Contributes to school effectiveness by collaborating with other professionals	Teacher routinely and willingly leads other professionals to contribute to increased school effectiveness by successfully collaborating with other professionals.	Teacher contributes to school effectiveness by willingly collaborating with other professionals.	Teacher contributes to school effectiveness by collaborating with other professionals when asked or required to do so.	Teacher does not contribute to school effectiveness by collaborating with other professionals	
Work collaboratively with families of students	Teacher makes consistent effort to work collaboratively with families of students and does so frequently and successfully.	Teacher works collaboratively with families of some students with some success.	Teacher makes limited and at times inappropriate attempts to work collaboratively with families of students.	Teacher does not work collaboratively with families of students or attempt to work collaboratively with families.	
Works with colleagues improving schools, and advancing knowledge in their field	Teacher willingly and regularly leads opportunities to collaborate with colleagues and substantially improves schools and advances knowledge and practice in their field.	Teacher willingly takes advantage of the opportunity to collaborate with colleagues to improve schools and advance knowledge and practice in their field.	When specifically asked, teacher will work with colleagues to improve schools and to advance knowledge and practice in their field.	Teacher does not work with colleagues to improve schools or to advance knowledge and practice in their field.	
Demonstrates sense of responsibility to all students and fellow educators in school and district	Teacher actively demonstrates highest sense of responsibility to all students and fellow educators in the school and district and often assumes a leadership role in doing so.	Teacher demonstrates sense of responsibility to most students and fellow educators in school and district.	Teacher has a limited sense of responsibility to some students and fellow educators in school and district.	Teacher does not demonstrate a sense of responsibility to all students or to fellow educators in school and district.	
Establishes professional goals and pursues opportunities to grow professionally	Teacher regularly establishes meaningful professional goals and consistently pursues substantial opportunities to grow professionally.	Teacher establishes professional goals and pursues opportunities to grow professionally.	Teacher makes some attempt at establishing goals and pursues limited opportunities to grow professionally.	Teacher does not establish professional goals or opportunities to grow professionally.	

Learning Environment (Classroom Management) -Teachers create and maintain a learning environment where all can choose to be successful.

	Level: 4 In Place	Level: 3 Developing	Level: 2 Emerging	Level: 1 Not in Place	Score
Creates physical environment that engages all students	Teacher continuously creates the physical environment that meaningfully engages all students.	Teacher creates a physical environment that engages most of the students.	Teacher makes limited and at times inappropriate decisions regarding physical environment that engages some students.	Teacher does not create a physical environment to engage students.	
Establishes a climate that promotes fairness and respect	Teacher successfully establishes a climate that promotes highest degree of fairness and respect for all students.	Teacher establishes a climate that promotes fairness and respect for most students.	Teacher attempts to establish a climate that promotes fairness and respect, but only for some students. Teacher attempts to establish a climate that promotes fairness and respect, but only for some students.	Teacher does not establish a climate that promotes fairness and respect.	
Promotes social development and group responsibility	Teacher promotes social development and group responsibility for all students.	Teacher promotes social development and group responsibility for most of the students.	Teacher inconsistently promotes social development and group responsibility for some students.	Teacher does not promote social development or group responsibility.	
Establishes and maintains standards for student behavior	Standards for student behavior have been established and are clear appropriately maintained, and consistently applied to all students.	Standards for student behavior have been established and are maintained appropriately and consistently for most students.	Standards for student behavior have been established but are not maintained appropriately or consistently for all students.	Standards for student behavior have not been established and are not known by students.	
Uses instructional time effectively	Teacher consistently uses instructional time effectively and in a manner that allows all students to achieve success.	Teacher uses instructional time effectively and in a manner that allows some students to achieve success.	Teacher attempts to use instructional time effectively, but often in a manner that does not allow all students to achieve success.	Teacher does not use instructional time effectively. Teacher does not use instructional time effectively.	

Learning Theory (Effective Pedagogy) -Teachers think systematically about their practice and learn from experience. Teachers demonstrate the necessary pedagogical practice to support instruction

	Level: 4 In Place	Level: 3 Developing	Level: 2 Emerging	Level: 1 Not in Place	Score
Use student development knowledge and understanding of individuality to address needs and potentials	Consistently and appropriately plans instruction that is responsive to needs and potentials by using knowledge of student development and relationships with students and families.	Plans instruction that is responsive to needs and potentials by using knowledge of student development and relationships with students and families.	Inconsistently and at times appropriately plans instruction that may or may not be responsive to needs and potentials of students, nor based on knowledge of student development or relationship with students and families.	Does not use knowledge of student development or relationships with students and families to plan instruction.	
Effectively manages classrooms that use various structures and instructional methods.	Manages classrooms in a highly efficient and effective way so that differentiated means and methods are used to meet diverse needs of students.	Manages classroom in efficient and effective ways so that some differentiated means and methods are used to meet diverse needs of students.	Has some strategies for effectively managing classroom and has limited means and methods to meet diverse needs of students.	Ineffectively manages classroom with no means and methods to meet diverse needs of students.	
Understands how students learn and develop.	Has complete in-depth understanding of how students at age/grade range learn and develop and applies this appropriately to instruction.	Understands how students at age/grade range learn and develop and applies this to instruction.	Has surface level knowledge about how students learn and develop and applies this on a limited basis to instruction.	Does not understand how students learn and develop.	

Technology -Technology provides a means of accessing, analyzing, interpreting, synthesizing, applying and communicating information to enhance teaching and learning.

	Level: 4 In Place	Level: 3 Developing	Level: 2 Emerging	Level: 1 Not in Place	Score
Demonstrates knowledge and skills to use technology as a teaching and learning tool	Technology use allows for multiple opportunities to improve teaching and learning.	Technology use explores several ways to enhance teaching and learning.	Technology use promotes teaching and learning in a manner that is similar to existing tools used.	Technology use is isolated and does not relate to teaching and learning.	
Uses technology to manage information to make decisions about learners and learning	Technology is used in most appropriate and authentic manner to manage decisions about learners and learning.	Technology is used in appropriate and/or authentic manner to manage decisions about learners and learning.	Technology used to manage information is limited and contrived.	Technology is not used to manage information to make decisions about learners and learning.	
Facilitates student use of technology to further learning process	Technology use by students provides most challenging and creative options that enhance learning.	Technology use by students provides some options that enhance learning.	Technology use by students is limited in options that enhance learning.	Student use of technology is not facilitated in order to further the learning process.	
Integrates technology to manage teaching and learning environment	Technology is integrated in a highly effective and efficient way so that the teaching and learning environment significantly enhances learning	Technology is integrated effectively and/or efficiently so that the teaching and learning environment affects learning.	Technology is integrated in a less than effective and efficient way to manage teaching and learning environment.	Technology is integrated in a less than effective and efficient way to manage teaching and learning environment.	
Basic Computer Use	I trouble-shoot successfully when basic problems with my computer or printer occur. I learn new programs on my own. I teach basic operations to my students.	I run two programs simultaneously, and have several windows open at the same time.	I use the computer to run a few specific, pre-loaded programs.	I do not use a computer.	
File Management	I move files between folders and drives, and I maintain my network storage size within acceptable limits. I teach students how to save and organize their files.	I create my own folders to keep files organized and understand the importance of a back-up system.	I select, open and save documents on different drives.	I do not save any documents I create using the computer.	
Word Processing	I teach students to use word processing programs for their written communication.	I use a word processing program for nearly all my written professional work: memos, tests, worksheets, and home communication. I edit, spell check,	I occasionally use a word processing program for simple documents. I generally find it easier to hand write most written work I do.	I do not use a word processing program.	

		and change the format of a document.			
Spreadsheet	I teach students to use spreadsheets to improve their own data keeping and analysis skills.	I use spreadsheets for a variety of record-keeping tasks. I use labels, formulas, cell references and formatting tools in my spreadsheets. I choose charts that best represent my data.	I understand the use of a spreadsheet and can navigate within one. I create simple spreadsheets and charts.	I do not use a spreadsheet.	
Database	I teach students to create and use databases to organize and analyze data.	I create my own databases. I define the fields and choose a layout to organize information I have gathered. I use my database to answer questions about my information.	I understand the use of a database and locate information from a pre-made database such as Library Search.	I do not use a database.	
Graphics	I promote student interpretation and display of visual data using a variety of tools and programs.	I edit and create graphics, placing them in documents in order to help clarify or amplify my message.	I open, create, and place simple pictures into documents using drawing programs or clipart.	I do not use graphics with my word processing or presentations.	
E-mail	I use e-mail to request and send information for research.	I incorporate e-mail use into classroom activities. I use e-mail to access information from outside sources.	I send messages using e-mail – mostly to district colleagues, friends, and family. I check my e-mail account on a regular basis and maintain my mail folders in an organized manner.	I have an e-mail account but rarely use it.	
Research/Information-Searching	I have incorporated logical search strategies into my work with students, showing them the power of such searches with various electronic sources to locate information that relates to their questions.	I have learned how to use a variety of search strategies on several information programs, including the use of Boolean (and, or, not) searches to help target the search.	I conduct simple searches with the electronic encyclopedia and library software for major topics.	I am unlikely to seek information when it is in electronic formats.	

Desktop Publishing	I design original publications that communicate to others what I've learned.	I create original publications from a blank page combining design elements such as columns, clip art, tables, word art, and captions.	I use templates or wizards to create a published document.	I do not use a publishing program.	
Video Production	I use computer programs to edit video presentations and I teach my students to create and edit videos.	I create original videos using editing equipment.	I create original videos for home or school projects.	I do not use a video camera.	
Technology Presentation	I teach my students how to use presentation software. I facilitate my students' use of a variety of applications to persuasively present their research concerning a problem or area of focus in their learning.	I present my information and teach my class using presentation programs such as PowerPoint or Photo Parade, incorporating various multimedia elements such as sound, video clips, and graphics.	I present my information to classes or groups in a single application program such as a word processor, a spreadsheet, or a publishing program.	I do not use computer presentation programs.	
Internet	I contribute to my school or district websites. I teach students how to effectively use the resources available on the Internet.	I use lists of Internet resources and make profitable use of Web search engines to explore educational resources.	I access school and district websites to find information. I follow links from these sites to various Internet resources.	I do not use the Internet.	
Responsible Use/Ethics	I model ethical use of all software and let my students know my personal stand on this issue.	I understand district rules concerning student and adult use of e-mail and internet. I know the programs for which the district or my building holds a site license. I understand the school board policy on the use of copyrighted materials.	I know that some copyright restrictions apply to computer software.	I am not aware of any ethical issues surrounding computer use.	
Technology Integration	I frequently model and teach my students to employ computer-based technologies for communication, data analysis, and problem-solving as outlined in the district technology plan.	From time to time, I encourage my students to employ computer-based technologies to support the communicating, data analysis and problem solving outlined in the district technology plan.	I understand the district technology plan supports integration of technology into classroom activities, but I am still learning about what strategies will work and how to do it. I accept student work produced electronically, but do not require it.	I do not blend the use of computer-based technologies into my classroom learning activities.	

Acknowledgements:

The following publications have contributed to development of this plan:

OCM BOCES Center for Learning Technologies – Resources on E-RATE, NCLB, and NYS ED Technology Plan Requirements, <http://cnyric.org/techplans/main.cfm?refererpage=/home.cfm>

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Accelerated Reader Research Listings, http://www.trelease-on-reading.com/ar_studies.html