POCANTICO HILLS CENTRAL SCHOOL DISTRICT
599 Bedford Road
Sleepy Hollow, New York 10591

TECHNOLOGY PLAN
2005 - 2008

Developed by:

Robert Balog	Jean Benitez	Enrique Catalan	Gloria Colucci
Spencer Disher	Laura Garrido	Terry Hongell	Jane Shemin
Joe Stutz	Michelle Terry	Dan Tomasetti	Denise Willi
Dr. Thomas Elliott			

Pocantico Hills School Web Site: http://www.pocanticohills.org

Technology Plan
January 24, 2005

INTRODUCTION

In late November, a committee comprised of teachers, administrators and community members was formed to examine the state of Pocantico Hill School's technology. Although we've had only a short time to work, what the committee has discovered is disturbing. We've found a school district whose hardware is on average eight years old, so old, in fact, that staff frequently can't access the Internet in ways that are meaningful for classroom instruction. We've found computers so slow teachers are unable to run state-of-the-art educational software or use e-mail to communicate with one another. Because of limited in-house technical resources, we've found even working our newest wireless laptops is cumbersome. Some students have reported trying out two or three laptop computers before finding one that works.

Compared to other area districts, affluent and otherwise, Pocantico Hills School (PHS) has fallen behind. We have a decent network infrastructure thanks to a recent upgrade completed during the last three-year technology plan (2001-2004). But because of our outdated equipment, we have not realized the promise of technology in education at our school. Valuable teaching tools that help with assessment and individualized instruction are not being taken advantage of. For example, kindergarten teachers are unable to use a new computerized reading program designed to complement their McMillan Language Arts curriculum because the computers keep crashing.

With our recommendations this committee will attempt to bring PHS in line with national and state technology guidelines (see Exhibit D, "Standards"), many of which are already in use in exemplary school districts all over the country. We will look at our hardware and software needs, innovative technology we'd like to introduce, as well as the critical need for a staff person whose responsibility will be to champion technology and its use at the school.

In the committee's opinion there could be no greater investment in our children's future than this much-needed upgrade. Armed with the right technology, PHS will be better able to accomplish its mission: to help students attain academic excellence and gain the communication and problem-solving skills they'll need to succeed in the 21st Century.

BACKGROUND

As part of the district's "Strategic Framework and Goals" adopted by the Board of Education on November 1, 2004, the board reconvened the district's technology committee to prepare a short and long term technology plan for the school district. Using the strategic framework as a guide, the committee started its work almost immediately and determined that its mission would be ***to provide a reliable, efficient infrastructure of technology resources that supports and enhances the long-term goal of ensuring each child is reaching her/his full academic potential within the Pocantico Hills School District.*** Committee members met on a weekly basis, assessed PHS's current technology, discussed technology needs and possible initiatives with PHS staff, attended two conferences at BOCES (Board of Cooperative and Educational Services), and visited neighboring schools to learn more about their experiences with effective educational technology. In addition, the committee also gathered information on successful technology initiatives at nationally-recognized model schools and examined U.S. and New York State Department of

Education recommendations – both based on ISTE (International Society for Technology Education) guidelines – to help determine our goals.

Although we've only had a limited number of weeks to prepare, we're submitting our plan today to ensure our recommendations would be considered for funding in the 2005-2006 budget and succeeding budgets. In no way, does the committee consider this document to be a comprehensive final plan. We believe this is an important first step of a dynamic process that will continue to evaluate our technology needs.

THE CURRENT STATE OF POCANTICO'S TECHNOLOGY

Computers are an integral part of the instructional program at PHS. Beginning with the first grade, students are exposed to a host of computer-related skills in the Computer Lab (see Exhibit C: "Computer Curriculum") and have limited opportunities to apply those skills through classroom work and special projects which strive to integrate technology into the curriculum. Web pages created by PHS staff and students have won national recognition. PHS students and staff have a high degree of computer awareness.

In 1985, Pocantico Hills School established its first computer network. Initially, the network supported a computer lab housing 17 Apple IIe computers. During the 1994-95 school year, the school's local area network, computer lab and building wiring were upgraded. The following year, the Apple computers were replaced by Dell workstations and the library was computerized. In 2000, PHS added a mobile wireless lab, and has upgraded the workstations in the computer lab. Since then, the school has invested little in technology. From 2002 to 2004, PHS spent an average of $27,000 per year, or $75 per student, in computers and computer supplies, school records show. This expenditure compares very poorly to schools that are considered to be technologically advanced. According to the article "The costs of technology-rich schools" and data from QED and RAND, a sample of these schools shows an average expenditure per student of approximately $330 per student Moreover, PHS's investments in technology over the last five years falls short of any state or federal recommendations or guidelines. According to a report published in the Public Policy Institute of New York State highlighting these guidelines, technology spending should account for 5% of the total school budget. District records show that during the last three years, PHS has spent less than 0.5% of its total school budget on technology. Currently, PHS has 102 workstations for approximately 360 students and staff. Our ratio is 3.5:1 students per computer. Although the ratio is a good one by national standards (3:1 in 2003), it's very misleading due to the fact that nearly half of our workstations are nine years old and are first generation Pentium 75 or 133 MHz equipped with Windows 95 and 98 operating systems. Given this fact, our true working ratio is 7: 1. The balance of our workstations are three to four years old, already outdated by technology standards. Last year, the district purchased 16 new computers to be used by administrative, library and special needs staff. Overall, the existing equipment is too old, far too slow and limited in memory to process the complex graphics, visual, text and audio featured on the Internet and in the latest educational software. While we have a wireless laptop lab, its use is limited to a few classrooms in the middle school due to access and physical constraints in the building. PHS also has an award-winning school web site, but because it utilizes old technology, staff members can't take advantage of the latest software

that allows parents to access school resources from home. These issues, along with the lack of new technology -- such as Interactive White Boards -- that could enhance student learning at PHS, need to be addressed.

News about our network infrastructure isn't as discouraging. PHS has two new servers (2004), and our network speed has been completely upgraded to 100 MB, sufficient by current standards but not state of the art. Our current connection to the internet is a dedicated T1 line which may need to be upgraded once new hardware is in place and we have a better sense of teacher and student bandwidth use. Besides minor upgrades to switches and adding wireless access points, infrastructure improvements for the moment are minimal.

When it comes to maintenance and support, PHS has historically relied on a piecemeal approach. If a teacher has a specific request or problem they must address it with the district's assistant superintendent or Computer Lab Instructor who provides whatever support possible and then calls upon BOCES, if needed, our regional source for technical assistance. Because a dedicated technology expert isn't in the building, teachers often get frustrated and don't get the best use of the technology that is available.

Professional development for teachers and staff, perhaps the most critical component of any successful technology plan, is also limited. At present, teachers are encouraged to utilize their professional development allocations to attend conferences and workshops related to the use of technology in their instructional practices. However, as more wide-ranging technology, software, and Internet-based content is made available, the District's challenge is to better prepare teachers to be aware of and use these powerful tools. Teachers and staff report they would welcome the opportunity for a more comprehensive approach and improved teacher training.

PHS TECHNOLOGY GOALS

To support the mission of PHS as stated in its strategic framework, the committee is recommending the following broad goals be established:

1. Ensure funds allocated to technology are sufficient and are used in the most efficient manner.

2. Improve and maintain a ratio of 2.2:1 students per computer with no workstation older than four years of age.

3. Enhance and provide effective professional development and technology training for teachers and staff.

4. Evaluate and implement existing and innovative technology that supports the long-range academic goals of PHS.

5. Provide a technical support structure that quickly responds to user hardware and software issues.

6. Maintain a responsive, reliable and efficient network and internet infrastructure.

7. Establish integrated, interoperable data systems to provide for better allocation of resources, greater management efficiency, and technology-based assessments of student performance.

8. Improve communication between teachers, parents, and staff through the use of technology.

9. Ensure compliance with technology standards and regulations at the state and national levels.

10. Provide funding of at least two "seed" projects to test new technologies innovations within the education community, such as adaptive testing – a cutting edge Internet-based assessment tool – and virtual classroom, which provide supplemental learning opportunities not readily available in a small school.

SUGGESTED IMPROVEMENTS

To achieve the goals stated in this technology plan, the following areas have been targeted as needing immediate attention and improvement:

Funding for Equipment and Software Upgrade

The most immediate goal is to equip each classroom, and each teacher, with modern workstations over the course of three years. To accomplish this goal, the District will need to allocate and set aside funds on a yearly basis for workstation purchases and upgrades (see Exhibit B, "Three-Year Cost Analysis"). To prevent obsolescence, the implementation of a three-year cycle to replace outdated workstations is being recommended similar to the process in use for the district's transportation equipment. In addition, the committee recommends the district investigate the merits of leasing equipment to provide for more predictable and level budgeting. Besides funding, it may also be important for the board to revisit and review current school district policy as it relates to technology.

Major advances have been made in educational software in recent years. The Technology committee has organized the software issue into two broad categories: specific grade or subject software; and global software, which are purchased by the District for widespread use. The first year of the plan will emphasize the former, with teachers having adequate funding and assistance from the district's technology specialist (see below), to purchase and use appropriate grade-level software. In addition, we recommend that the Technology Committee be made a standing committee, to assess both the on-going use of technology in the classroom, and investigate the

purchase of "global" software for year two of the plan. As teachers use the new workstations and Smart Boards, and continue with staff development, their input will help the Technology Committee choose the "global" software for year two.

Increased Access

In order to improve the student to computer ratio, the number of workstations will increase from 102 to 189 over the next three years (see Exhibit A: "Three Year Projected Workstation/Equipment Analysis"). The computer lab is currently fully scheduled leaving little or no opportunity for teachers to bring full classes to the lab to work on special projects. More computer time per student is desperately needed. Adding a second mobile wireless lab for elementary use would be very effective in furthering instruction in the district. The mobile lab would consist of a cart of 20 laptop computers and a printer that can run off wireless access points being installed in the elementary wing that year. Teachers could then schedule the mobile lab for classroom instruction. Clusters of three-computers per elementary classroom plus a workstation for the teacher will also be established, replacing in many cases one to two computers currently in use in classrooms which are ineffective for group work.

Technology Specialist

To ensure our investment in technology realizes its full potential, the committee is strongly urging that the district consider hiring a full-time Technology Specialist. Rather than rely on the current piecemeal approach, this specialist would wear many hats and be the in-house point person for all district technology-related issues. Apart from providing technical support, the Specialist will facilitate the selection of appropriate Internet-based or software content and will focus on integrating technology with our academic curriculum so meaningful learning can take place. The Specialist will provide staff development through workshops and one-on-one training for staff and teachers as needed. Ensuring PHS is in compliance with national and state standards would also fall under this newly created position.

Professional Development

It is critical that professional development be at the forefront of our Technology Plan in order to ensure its ultimate success. A federal rule-of-thumb is that schools should budget to spend at least 25% of their technology budget on training. Only with sufficient training can teachers and staff become confident in the use of the technology that will become a living part of their classroom. Staff development days, in addition to on-going support by a technology curriculum Specialist, will need to be dedicated to technology education. District staff will continue to be encouraged to attend conferences and workshops related to the use of technology in their instructional practices. In addition to the traditional conference and workshop format, the use of online workshops would enable the district to expand its capacity to provide staff development offerings to meet this ever-growing need.

Interactive White Boards

Interactive white boards, sometimes referred to as Smart Boards, provide teachers with a large electronic screen from which they can make presentations, explain and practice hard-to-grasp concepts, save notes from the board in digital format and do a host of other meaningful tasks using web-based applications or curriculum content. The boards, which are appearing in increasing numbers of classrooms throughout Westchester County and the U.S. because they engage students so effectively, come with a wide range of tools that allow teachers and students to write and interact with the subject matter on the screen. Research shows this innovative technology can benefit all types of learners since they can address a number of different learning styles. Research also shows that interactive white boards increase access for younger students and students with disabilities. Using this technology in PHS will enable teachers and staff to modify and adapt content to an individual student's learning styles and needs.

Update Network Infrastructure

To remove any potential network traffic bottlenecks, the committee will recommend moderate upgrades to the network infrastructure so that PHS can accommodate anticipated new technology.

SPECIFIC RECOMMENDATIONS

Stage One (School Year 2005-06)

1. Replace computer lab computers with new workstations. Migrate the older, but still useable, Pentium 3 computers to classrooms. Install additional new classroom computers as per attached Exhibit A.

2. Install 6 fixed Smart Boards; one each in the Computer Lab and Math room. Install 4 Smart Boards on mobile carts for school-wide use.

3. Include appropriate furniture for grade levels.

4. Hire a 1.0 FTE Technology Specialist.

5. Establish an ongoing staff development program for educational technology.

6. Encourage staff to attend additional workshops and conferences on integrating technology in their classrooms.

7. Provide ample funding for the purchase of software for classroom use.

8. Upgrade lab and network software to comply with Windows XP as per Exhibit A.

9. Replace hubs in the computer lab with switches.

10. Install wireless access points in the Middle School to more fully use our wireless laptops.

11. Replace 20 of the old printers with new color laser printers for classroom use. Install 2 workgroup color laser printers; one each in the computer lab and the Library. Install a workgroup B&W laser in the Library (See Exhibit D for Library Plan).

12. Connect copiers in the business office to the network for high speed printing capability for all classrooms.

13. Investigate the feasibility of loaning computers to students who are economically disadvantaged.

14. Install 10 scanners for Smart Boards and classroom use.

15. Investigate feasibility of installing Air Conditioning and a server rack in Library Server Closet.

16. Create a contingency fund for software and hardware purchases.

17. Make the Technology Committee a standing committee.

Stage Two (School Year 2006-07)

1. Install additional new classroom computers as per attached Exhibit A.

2. Include appropriate furniture for grade levels.

3. Purchase 20 wireless laptops for a mobile lab in the Elementary School.

4. Install wireless access points in the Elementary School.

5. Install 14 fixed Smart Boards in classrooms.

6. Replace 10 of the old printers with new color laser printers for classroom use.

7. Install 14 scanners for Smart Boards.

8. Continue the ongoing staff development program for Educational technology.

9. Continue to encourage staff to attend additional workshops and conferences on integrating technology in their classrooms.

10. Maintain ample funding for the purchase of software for classroom use.

11. Maintain a contingency fund for software and hardware purchases.

12. Set aside funds for technology innovation "seed" projects.

Stage Three (School Year 2007-08)

1. Install additional new classroom computers as per attached Exhibit A.

2. Include appropriate furniture for grade levels.

3. Install 10 fixed Smart Boards in classrooms.

4. Purchase 20 wireless laptops for replacement of the mobile lab in the Middle School.

5. Replace 10 of the old printers with new color laser printers for classroom use.

6. Continue the ongoing staff development program for Educational technology.

7. Continue to encourage staff to attend additional workshops and conferences on integrating technology in their classrooms.

8. Maintain ample funding for the purchase of software for classroom use.

9. Maintain a contingency fund for software and hardware purchases.

IN CONCLUSION

Pocantico Hills is a district that desperately needs to upgrade its technology. This plan is an important first step, but much work remains to be in order to give our students the greatest educational advantages technology can provide. As a standing committee, we will explore the best software for our school. We will go beyond Interactive White Boards and search for other innovative technology worthy of seed funds. Most important, we will create a review process to evaluate the recommendations put in place from this plan to ensure they are truly helping students learn the skills they'll need to meet the challenges of the future.

EXHIBITS:

A.) THREE-YEAR PROJECTED WORKSTATION/EQUIPMENT ANALYSIS

	Existing		Proposed Total after 3 year Plan	New Pc's installed in 2003 or 2004	Add in Year 1	Add in Year 2	Add in Year 3
Pre-K	1		2		1	1	0
Kindergarten	1		4		1	2	1
Kindergarten	0		4		1	2	1
Kindergarten	1		4		1	2	1
1st Grade	1		4		1	2	1
1st Grade	2		4		1	2	1
2nd Grade	2		4		1	2	1
2nd Grade	2		4		1	2	1
3rd Grade	1		4		1	2	1
3rd Grade	2		4		1	2	1
4th Grade	2		4		1	2	1
4th Grade	3		4		1	2	1
4th Grade	2		4		1	2	1
5th Grade	4		4	1	1	1	1
5th Grade	5		4	1	1	1	1
6th Grade	1		1		1	0	0
6th Grade	1		1		1	0	0
MS English	2		5		1	2	2
MS Math	1		1		1	0	0
MS Soc. Stu.	3		3		1	1	1
MS Science	1		1		1	0	0
PE	1		1		1	0	0
PE	1		1		1	0	0
Music	1		1		1	0	0
Music	0		1		1	0	0
Art	1		1		1	0	0
French	1		1		1	0	0
Spanish	1		1		1	0	0
Guidance	1		1		1	0	0
MS Resource	2		4	1	1	1	1
MS Special Ed	4		4	1	1	1	1
Shop	0		1		1		
Berardi	1		2	1	0	1	0
O'Neill	2		2	1	0	1	0
Eaker	1		2		1	1	0
Nurse	1		1		1	0	0
Asst. Principal	1		1		0	1	0
ELO	6		6		2	2	2
Huber	2		2	1	0	1	0
Speech	1		2	1	0	1	0
Psychologist	1		1	1	0	0	0
Palombo	4		4	1	0	2	1
Lab	24		25		25	0	0
Library	6		12	6		3	3
Faculty Room	2		2		1	0	1
Laptops	20		40		0	20	20
Totals	**103**		**189**	**16**	**62**	**65**	**46**
	Existing		Proposed	New	Add	Add	Add

			Total after 3 year Plan	Pc's installed in 2003 or 2004	in Year 1	in Year 2	in Year 3
Color Laser-Library & Lab			2		2		
B&W Laser-Lib			1		1		
Printers (Color laser)			40		20	10	10
Smart Boards			30		6	14	10
Scanners			34		10	14	10
Switches for Lab					x		
Networked Copiers					x		
MS Access Points					x		
Elem. Access Points						x	
Staff Development					x	x	x
Technology Specialist					x	x	x
Contingency Fund					x	x	x

THREE-YEAR COST ANALYSIS:
B.)

Description	Qty	Unit $	Extended Costs	Integration Costs
Year 1				
Workstation				
P4 3.0 GHz, 512MB RAM	62	1,300	80,600	
40 GB HD, DVD-CDRW Combo, 17" Multimedia				
CAT 5 UTP Cables (7')	112	7	784	
MS Office Pro with Pulisher 2003	62	50	3,100	
Frontpage	62	33	2,046	
Disk Set for Office Pro 2003/Publisher	2	20	40	
Disk Set for Frontpage	2	20	40	
Norton Anti-Virus	62	7	434	
Build New WinXP Instructional Image - New	1	800	800	
Systems Integration - Ghosting New	62	75	4,650	4,650
Peripherals:				
Smartboards 72" w/ Stands	6	2,000	12,000	
Epson - DLP Projector 1700 lumens SVGA	6	1,000	6,000	
Projector Ceiling Mounting and Cable Kit (est.)	6	500	3,000	
Ceiling Mount, Post, SVGA & RCA 50' cables				TBD
hp4550 Color Laserjet	2	2,100	4,200	
hp 8200 Scanjet/SCSI kit	10	470	4,700	
hp 2500n Color Laserjet	20	650	13,000	
B&W Laser Printer (Classrooms)	1	250	250	
Systems Integration - Network Printers	39	65	2,535	2,535
COST TO MOUNT PROJECTORS AND SMARTBOARDS	6	1,400	8,400	
Other				
Staff Development			25,000	
Seed Applications			10,000	
Curriculum Software			10,000	
Contingencies			15,000	
Network Electronics				
Lab Router Replacement with GIG Uplink-See quote - Managed	1	15,515	15,515	
Systems Integration - Classroom	1	2,625	2,625	2,625
Project Management-RIC Service	1	5,400	5,400	
Sub-Total			224,719	9,810
SCHOOL TOTAL			**234,529**	

Description	Qty	Unit $	Extended Costs		Integration Costs
Year 2					
Workstation					
P4 3.0 GHz, 512MB RAM	45	1,300	58,500		
40 GB HD, DVD-CDRW Combo, 17" Multimedia					
CAT 5 UTP Cables (7')	90	7	630		
Dell Wirelss Laptop Cart-Qty 20 with Access point	1	28,000	28,000		
MS Office Pro with Pulisher 2003	65	50	3,250		
Frontpage	65	33	2,145		
Disk Set for Office Pro 2003/Publisher	2	20	40		
Disk Set for Frontpage	2	20	40		
Norton Anti-Virus	65	7	455		
Build New WinXP Instructional Image - New	1	800	800		
Systems Integration - Ghosting New	45	75	3,375		3,375
System Integration-Laptops	20	131	2,620		2,620
Peripherals:					
Smartboards 72" w/ Stands	14	2,000	28,000		
Epson - DLP Projector 1700 lumens SVGA	14	1,000	14,000		
Projector Ceiling Mounting and Cable Kit (est.)	14	500	7,000		
Ceiling Mount, Post, SVGA & RCA 50' cables				TBA	
hp4550 Color Laserjet	0	2,100	0		
hp 8200 Scanjet/SCSI kit	14	470	6,580		
hp 2500n Color Laserjet	10	650	6,500		
B&W Laser Printer (Classrooms)	0	250	0		
Systems Integration - Network Printer and Smartboards	38	65	2,470		2,470
COST TO MOUNT PROJECTORS AND SMARTBOARDS	14	1,400	19,600		
Project Management-RIC Services	1	6,000	6,000		
Other					
Staff Development			25,000		
Seed Applications			10,000		
Global Software			35,000		
Contingencies			15,000		
	Sub-Total		275,005		8,465
	SCHOOL TOTAL		**283,470**		

Description	Qty	Unit $	Extended Costs	Integration Costs
Year 3				
Workstation				
P4 3.0 GHz, 512MB RAM	26	1,300	33,800	
40 GB HD, DVD-CDRW Combo, 17" Multimedia				
CAT 5 UTP Cables (7')	52	7	364	
Dell Wirelss Laptop Cart-Qty 20 with Access point	1	28,000	28,000	
MS Office Pro with Pulisher 2003	46	50	2,300	
Frontpage	46	33	1,518	
Disk Set for Office Pro 2003/Publisher	2	20	40	
Disk Set for Frontpage	2	20	40	
Norton Anti-Virus	46	7	322	
Build New WinXP Instructional Image - New	1	800	800	
Systems Integration - Ghosting New	46	75	3,450	3,450
System Integration-Laptops	20	131	2,620	2,620
Peripherals:				
Smartboards 72" w/ Stands	10	2,000	20,000	
Epson - DLP Projector 1700 lumens SVGA	10	1,000	10,000	
Projector Ceiling Mounting and Cable Kit (est.)	10	500	5,000	
Ceiling Mount, Post, SVGA & RCA 50' cables				TBA
hp4550 Color Laserjet	0	2,100	0	
hp 8200 Scanjet/SCSI kit	10	470	4,700	
hp 2500n Color Laserjet	10	650	6,500	
B&W Laser Printer (Classrooms)	0	250	0	
Systems Integration - Network Printers Smartboards	30	65	1,950	1,950
COST TO MOUNT PROJECTORS AND SMARTBOARDS	10	1,400	14,000	
Project Management-RIC Service	1	4,400	4,400	
Other				
Staff Development			25,000	
Seed Applications			10,000	
Curriculum Software			10,000	
Contingencies			15,000	
Sub-Total			199,804	8,020
SCHOOL TOTAL			**207,824**	

COMPUTER CURRICULUM

The following curriculum is not a fixed set of skills but rather a guide for study. The outline is based on a current profile of grade level activities.

Areas of Concentration by Grade

1st Grade

- Log in and out of school network with ID
- Using input devices (mouse and keyboard)
- Navigating the school network
- Use drawing tools
- Exploring multimedia

2nd Grade

- Building word processing skills
- Using electronic encyclopedia to gather information
- Using drawing program to display information
- Use the Internet to gather information
- Use the Internet to share student understanding of a topic

3rd Grade

- Building keyboarding skills
- Explore graphing program
- Manipulate text and graphics
- Begin use of presentation software
- Create web page with student created image
- Using the internet to present information

4th Grade

- Continue building keyboarding skills
- Using spreadsheets to calculate totals and graph
- Begin the use of search engines
- Evaluating information found on the Internet
- Developing and editing word processing document with images
- Developing ability to create images using a vector drawing program
- Create web page, using the Internet to present information

5th Grade

- Searching the Internet and evaluating information
- Developing word processing document using proper keyboarding techniques
- Developing multimedia presentation citing sources
- Using the Internet to present information
- Developing the ability to use search engines effectively
- Continue developing ability to create images using a vector drawing program

6th Grade

- Evaluation of Web sites for accuracy and bias
- Developing desktop publishing skills including image placement and layout analysis

7th Grade

- Developing complex word processing skills
- Developing spreadsheet skills including creation of multiple forms of graphs
- Developing database skills
- Developing image editing skills
- Developing animation skills

8th Grade

- Refining search techniques using the Internet
- Refining evaluation information skills
- Developing web page complete with links to other sites
- Developing multimedia presentation citing sources
- Use the Internet to present information

Special Projects: Projects created by students in computer, most demonstration integration of computer instruction with classroom instruction. Includes web addresses where applicable

ELEMENTARY STUDENTS:

1st Grade: (meet twice a week)

Web site about ocean animals

http://www.pocanticohills.org/pocantico/1stgrade/sea/sea.htm

Web site about a snowy day

http://www.pocanticohills.org/pocantico/1stgrade/snow/snow.htm

2nd grade: (meets twice a week)

Web site developed with two classes in conjunction with the Franklin Institute of Science in Philadelphia

http://www.pocanticohills.org/wright/wright.htm

Web site based on the class writing

http://www.pocanticohills.org/taverna/04/learn.htm

http://www.pocanticohills.org/rollman/04/learn.htm

Web site about Truck Day (Truck Day & math word problems)

http://www.pocanticohills.org/truckday/math2T.htm

http://www.pocanticohills.org/truckday/math2R.htm

3rd Grade

Web site based on class study of Guide Dogs

http://www.pocanticohills.org/guidedogs/guidedogs.htm

Web site based on study of Summer Olympic Games

http://www.pocanticohills.org/olympics/summerolympics.htm

4th Grade: (meets twice a week)

Web site based on Women's contributions to society

http://www.pocanticohills.org/pocantico/womenenc/womenenc.htm

Web site based on class study of Historical Sources

http://www.pocanticohills.org/sources/sources.htm

Web site based on class study on Colonial Tradesmen

http://www.pocanticohills.org/tradesmen/tradesmen.htm

5th Grade: (meets twice a week)
Web site created in conjunction with classroom teachers and the art teacher
Who is your Favorite President?
http://www.pocanticohills.org/pocantico/presidents/presidents.htm
Web site created based on classroom study of Canada
http://www.pocanticohills.org/canada/canada.htm

MIDDLE SCHOOL STUDENTS:
6th Grade: (meets four times a week for six weeks - Middle School Rotation Schedule)
Created newsletters based on student choice - Ancient Egypt, Ancient Greece or Ancient Rome (Social Studies topics in sixth grade.)
7th Grade: (meets daily for approximately six weeks - Middle School Rotation Schedule)
Refine advanced word processing skills with series of self paced lessons.
Refine spreadsheet skills with series of self paced lessons including graphing data..
Introduce database creation
Introduce Photo Editing and Image Creation
Introduce the creation of animated images for web
8th Grade: (meets daily for approximately six weeks-Middle School Rotation Schedule)
Refine searching skills and continue working toward evaluating web sites for accuracy, bias, and appropriateness to task. This process leads to the creation of a webpage and a Power Point presentation. In previous years we have created websites on decades covered in 8th grade Social Studies.
http://www.pocanticohills.org/century/1960s.htm
http://www.pocanticohills.org/century/1970s.htm

Many have recognized the efforts of our students. All awards that the Pocantico Web Site has received can be viewed at: http://www.pocanticohills.org/awards/awards.htm. Listed below are some of the more significant achievements.

Discovery Channel School Site of the Week	June 1, 1999
Yahooligans Cool Site-Children's Encyclopedia of Women	January 15, 1999
Appeared in the Westchester Cartoon section: www.4kids.org	
Harriet Tubman and the Underground Railroad	June 26, 1999
A Children's Guide to the Buddha's Art of Healing	April 11, 1999
Pioneer Award from BOCES Regional Information Center	April 1999
Education World Cool School of the Week	October 4, 1999
CyberSurfari stop	Summer 1999, 2000, 2001 & 2002
Featured as Los Angeles Times Launch Point	
Harriet Tubman & the Underground Railroad	
The International Reading Association	
Presidential Award for Reading & Technology	February, 2001
Blue Web'n Site Award winners:	
Harriet Tubman and the Underground Railroad	
Vietnam, A Children's Guide	
Charlotte's Web	
Surfing the Net with Kids	

Charlotte's Web Summer 2004

Amazing Kids of the Month

Summer Olympics for Kids August 2004

Recognized by International Reading Association: Miss Rumphius Award

Benjamin Franklin: A Man of Many Talents
Charlotte's Web
Children's Encyclopedia of Women
Harriet Tubman and the Underground Railroad
John D. Rockefeller Sr.
Vietnam
Winter Olympics for Kids

The accomplishments of the Pocantico students and classes clearly demonstrate the benefit of computer instruction. The computer class helps students develop the skills that they will need to be in the future. Students also benefit from the supervised opportunities to interact with visitors to the school's website. We have had the opportunity to collaborate with experts in several areas during the creation of websites. We worked with a history professor at the University of Delaware during the creation of the site on Vietnam and we had the advice and guidance of an entomology professor at Cornell University during the creation of a site on spiders. Our work is used by education professors at the College of William and Mary, Syracuse University, University of Connecticut, and many more to demonstrate what is possible in the integration of Reading and Technology.

D. NATIONAL EDUCATIONAL TECHNOLOGY FOUNDATION STANDARDS FOR ALL STUDENTS (as per the International Society for Technology Education (ISTE) Website)

The technology foundation standards for students are divided into six broad categories. Standards within each category are to be introduced, reinforced, and mastered by students. These categories provide a framework for linking performance indicators within the Profiles for Technology Literate Students to the standards. 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.

Technology Foundation Standards for Students

1 Basic operations and concepts
- Students demonstrate a sound understanding of the nature and operation of technology systems.
- Students are proficient in the use of technology.

2 Social, ethical, and human issues
- Students understand the ethical, cultural, and societal issues related to technology.
- Students practice responsible use of technology systems, information, and software.
- Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

3 Technology productivity tools
- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

4 Technology communications tools
- Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

5 Technology research tools
- Students use technology to locate, evaluate, and collect information from a variety of sources.
- Students use technology tools to process data and report results.
- Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

6 Technology problem-solving and decision-making tools
- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems in the real world.