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# Technology Plan

July 1, 2008 – June 30, 2011

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Principal: Jami Hoeksema

***Knapp Academy***

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*Grand Rapids, MI 49525*

*616-364-1100*

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District: Kent ISD

School Code: 41914

<http://knapp.heritageacademies.com/>

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# Technology Plan

June 30, 2008 – June 30, 2011

Knapp Academy

## School Contact Information

<b>Intermediate District Name:</b>	Kent Intermediate School District
<b>District Name:</b>	National Heritage Academies
<b>School Name:</b>	Knapp Charter Academy
<b>School Code Number:</b>	41914
<b>Address:</b>	1759 Leffingwell
<b>City, State. Zip code:</b>	Grand Rapids, MI 49525
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<b>URL for technology plan on Web:</b>	<a href="http://knapp.heritageacademies.com/">http://knapp.heritageacademies.com/</a>
<b>Years covered by plan:</b>	2008-2011
<b>Start date of plan:</b>	July 1, 2008
<b>End date of plan:</b>	June 30, 2011

# Introduction

## Knapp Academy

### School Technology Purpose Statement

Working in partnership with parents and community, the Knapp Academy mission is to create an integrated approach to technology education within the school building. We expect our students to master the basic technology skills and realize their full academic potential in preparation for higher education and adulthood with the use of technology. The purpose of National Heritage Academies is “challenging each child to achieve”.

### Vision

All students will be computer literate by Eighth Grade.

### School History & Demographics

Knapp Academy was founded in 1998 by local board of directors. Subsequently, National Heritage Academies was hired to provide professional services to Knapp Academy. Since its opening, Knapp has an enrollment of 672 students. It is a one building facility with grade levels Young Fives through Eighth Grade. The school has 50 teachers.

The population of the school reflects that of the surrounding community and is broken out as detailed below:

### School Demographics

	Female	Male	Total
<b>American Indian/ Alaska Native/Native Hawaiian</b>	6	6	12
<b>Asian American</b>	11	13	24
<b>Black/African American</b>	76	67	143
<b>Hispanic/Latino</b>	21	21	42
<b>White</b>	214	237	447
<b>Totals</b>	328	344	672

## School Affiliation & Philosophy

In order to fully understand the role of technology at Knapp, it is important to understand the relationship between the school and the company contracted to provide professional services.

National Heritage Academies (NHA) is an Educational Services company founded in 1995 to support charter schools with professional management services. Since its first contract with Excel Charter Academy in Grand Rapids, Michigan, NHA has expanded to support 55 schools serving over 33,000 students in 2007-2008.

NHA provides shared services between the schools it manages including, but not limited to:

1. Facility management
2. Curriculum support & staff development
3. Human resource support
4. Accounting and finance support
5. Board relations
6. State compliance & reporting
7. Technology infrastructure design, management, and support

NHA affiliated schools maximize school success through a deliberate process of sharing common resources to leverage economies of scale and sharing best practices to drive for continuous improvement.

For more information about National Heritage Academies, please refer to the NHA website, <http://www.heritageacademies.com>.

## High Student Achievement

Student achievement is the focus for measuring success at Knapp. Bearing this in mind, all activities and programs are evaluated using this metric. Technology, therefore, adds value in as much as it positively impacts student achievement.

We believe that “how” technology is applied in the classroom is substantially more important than “how much” or “how often” technology is applied. Technology’s role in an instructional setting must be deliberate, well-designed and continuously assessed. The successful application of technology for learning lies in the alignment of curriculum, staff preparedness, the quality and availability of training, responsive support systems, and the existence of a reliable and accessible infrastructure.

## Safe, Orderly, and Caring Schools

Knapp relies on NHA’s proprietary Moral Focus curriculum as a core element for developing a safe, orderly, and caring school environment. In a culture that is increasingly dominated by the presence of technology, students must be able to see the connection between actions and consequences. Just as NHA aligns its technology with its instructional goals and objectives, the policies relating to technology use must align with the development of strong moral character and good citizenship. This alignment is reflected in documents such as the Acceptable Use Policy [AUP], Internet Usage Policy and the application of copyright laws (see **Appendix**).

## Quality Teachers, Leaders, and Staff

Knapp is committed to developing an environment that fosters professionalism, personal growth, and knowledge acquisition. Technology plays a key role in the development of this environment by providing tools that can increase productivity, allow access to NHA’s curriculum resources, and connect teachers with resources and people throughout the world. To develop truly world-class teachers and administrators, Knapp will implement a targeted staff development program designed to help the teachers at school become more effective in their various roles by leveraging technology. This staff development effort will be supported by NHA resources and methodologies as part of a larger staff development effort.

## Strong Family, Community, and Business Support

Knapp is committed to partnering with parents as a foundational element of our educational program and the development of a strong school culture. Research tends to support this approach, indicating that parent involvement has a measurable impact on student achievement<sup>1</sup>. Accordingly, over the 2007-2008 school years, a technology committee made up of Knapp administration, teachers and parent consultant was established to begin the initial process of developing and finalizing this plan. A parent representative from the Knapp Academy School Improvement Team has also reviewed and approved this current Knapp believes that communication technology can be a powerful force in removing the barriers that sometimes exist between the classroom and the living room. Access to the Internet is increasingly more available NHA has already initiated efforts that build and support technologies to extend the learning environment

beyond the walls of the classroom and into student's homes. Additionally, the application of technology will, in the future, provide parents with access to supplemental curricular materials that will reinforce the students' classroom experiences.

The use of technology also provides Knapp with the ability to involve the greater community in the life of the school. With tools already in place, Knapp can make school-related information publicly available on the school Web site <http://knapp.heritageacademies.com/>

## Effective and Efficient Operation

Knapp has significant benefits through the association with NHA. NHA provides access to professional services and resources and the technology program. Because Knapp is one of 53 schools receiving services from NHA, we are able to take advantage of a shared services model referred to as Total Cost of Ownership. Through our contract, we are serviced by a professional technical team that provides Knapp with consulting, implementation, and support for all technology efforts. As a result of these shared services, our school is part of a network of other schools and best practices are shared on a regular basis. Ultimately, the partnership between Knapp and NHA allows the school's staff to focus its efforts on the delivery of instruction and student achievement implementing and supporting technology.

# Goals – High Student Achievement

## A. Curriculum

Goal	Objective/ Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Time-line (Beginning & Ending dates)	Method of Evaluation
1. The teacher will use curricular lessons infused with technology to meet the requirements of both the NHA Technology Scope & Sequence and the Michigan Educational Technology Standards.	Complete a minimum of 1 lesson/project that incorporates technology for each core subject area (Language Arts, Math, History, and Science).	Media Teacher. Academic Curriculum Resources. Technology Scope & Sequence. Appropriate network Hardware & Software.	Media Teacher	Knapp Academy Annual Technology Operations Budget	September through June each school calendar year.	Teachers will use the Technology Skills Assessment Checklist quarterly to measure student skills.
2. The Teacher will teach and reinforce skills specific to technology in the context of the regular academic curriculum.	Complete a minimum of 1 lesson/project that incorporates technology for each core subject area (Language Arts, Math, History, and Science).	Media Teacher. Academic Curriculum Resources. Technology Scope & Sequence. Appropriate network Hardware & Software.	Media Teacher	Knapp Academy Annual Technology Operations Budget	September through June each calendar year.	Teachers will use the Technology Skills Assessment Checklist quarterly to measure student skills.
3. Teachers will be able to utilize online tools to manage and use curriculum resources for delivery of instruction to students.	Understand how to use NHA Curriculum Center and other online teaching and lesson planning tools.	Media Teacher. Curriculum Center. The Internet	Media Teacher Individual Classroom Teacher.	Knapp Academy Annual Technology Operations Budget	September through June each calendar year.	Download and teaching of new curriculum resources on a regular basis.
4. Assist personnel in the creation and use of project-based, interdisciplinary units that integrate technology into all curricula.	Develop an understanding of regular academic curriculum and technology skills from the Scope and Sequence. Align technology skills with student projects from regular curriculum. Create and use projects that integrate technology.	Media Teacher Academic Curriculum Resources Technology Scope & Sequence Appropriate network Hardware & Software	Media Teacher Individual Classroom Teacher	Knapp Academy Annual Technology Operations Budget	September through June each calendar year.	Teachers will use the Technology Skills Assessment Checklist quarterly to measure student skills.
5. Provide guidance to all teachers to develop effective formative evaluation processes.	Train teachers in the use of Technology infused lessons and assessment.	Media Teacher	Media Teacher	Knapp Academy Annual Technology Operations Budget	September through June each calendar year.	Running records of technology skill achievement per student at the 7 <sup>th</sup> Grade Level.
6. Schedule computer lab flexibly so that students and teachers can access resources and services at point of need.	Develop a computer lab schedule with open time slots for use when needed.	Media Teacher Library Specialist Computer Lab Schedule	Media Teacher Library Specialist	Knapp Academy Annual Technology Operations Budget	September through June each calendar year.	Completion of computer lab log showing class accessibility and use of computers.

# Goals – High Student Achievement

## B. Evaluation

Goal	Objective / Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Time-line (Beginning & Ending dates)	Method of Evaluation
1. Continuously identify goals and assess progress of school level educational technology plan.	Monitor progress of goals on a monthly basis.	Media Teacher. School Technology Plan. School Improvement Plan.	Media Teacher	Knapp Academy Annual Technology Operations Budget	September through June each calendar year.	Revised educational technology plan.
2. Support the creation and use of teacher created rubrics to evaluate students' media and technology projects.	The teacher will create rubrics to evaluate media and technology.	Media Teacher Technology Scope & Sequence Technology Project Lesson Plans	Media Teacher	Knapp Academy Annual Technology Operations Budget	September through June each calendar year.	Teacher use and complete rubrics.
3. Corrections will be made to technology projects and/or plans as they are needed, based on formative assessments.	Measure student skill development during project completion.	Media Teacher Lesson Plans outlining formative assessment procedure(s). Technology skill checklist.	Media Teacher	Knapp Academy Annual Technology Operations Budget	September through June each calendar year.	Completion of skill checklist.
4. Students are evaluated through NWEA Testing each fall and spring.	Assess student achievement levels.	Technology	Principal NHA Service Center	Knapp Academy Annual Technology Operations Budget	September and May each school year.	Teachers review test results on a regular basis.

## Goals – Strong Family, Community and Business Support

### D. Parental Communications and Community Relations

Goal	Objective / Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Time-line (Beginning & Ending dates)	Method of Evaluation
1. Promote parent collaboration in their child's education through the use and access of student data systems (atschool.com).	Orientation and training for atschool is provided regularly.	Computers	Administrator. NHA Service Center	Knapp Academy Annual Technology Operations Budget	Ongoing throughout the calendar year.	Review of annual Parent Survey in February.
2. Use technology in Open House Events and other Parent Meetings.	To provide the most current information via technology resources.	Technology	Principal	Knapp Academy Annual Technology Operations Budget	Ongoing throughout the calendar year.	Discussion of effectiveness annually at staff meetings.
3. Staff will be proficient in using electronic tools (i.e. Email) to communicate and collaborate with other people throughout the organization.	Provide training on Email use based upon individual staff development plan.	Technology and flexible scheduling.	Principal Media Teacher NHA Service Center	Knapp Academy Annual Technology Operations Budget	Ongoing through the calendar year.	Staff Self-Assessment. Review of TDS survey in September and May of each school calendar year.

## Goals - Curriculum

### E. Collaboration

Goal	Objective / Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Time-line (Beginning & Ending dates)	Method of Evaluation
Increase teacher and media center collaboration.	Media Teacher will meet regularly with individual teachers to determine technology lesson enhancement.	Media Teacher. Staff Planning Time	Media Teacher	Knapp Academy Annual Technology Operations Budget	September through June each school calendar year.	Discuss effectiveness annually at staff meetings .

## Goals – Quality Teachers, Administrators and Staff

Goal	Objective / Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Time-line (Beginning & Ending dates)	Method of Evaluation
1. Professional Development will be delivered in multiple mediums to meet the various needs of individual teachers.	Provide training in appropriate medium based on individual staff development plan.	Media Teacher. Training Materials. Access to various training resources.	Media Teacher	Knapp Academy Annual Technology Operations Budget	September through June each school calendar year.	Review of Staff Survey.
2. Technology will be effectively used in the regular academic curriculum by the school staff.	Complete a minimum of 1 lesson/project that incorporates technology for each subject taught.	Media Teacher. Technology resources.	Teachers	Knapp Academy Annual Technology Operations Budget	September through June each school calendar year.	Review annually staff development survey.
1. Integrate use of electronic resources into classroom practice.	Use educational software and the internet in order to create interactive classroom practice to improve student achievement.	Technology resources.	Media Teacher and staff	Knapp Academy Annual Technology Operations Budget	September through June each school calendar year.	Review annually staff development survey.

## Goals – Effective and Efficient Operations

### H. Technical Specification - Design

#### I. Increase Access

Goal	Objective / Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Time-line (Beginning & Ending dates)	Method of Evaluation
1. All staff members will have their own computer.	Identify staff needs and purchase appropriate number of computers.	Technology	NHA Service Center	Knapp Academy annual technology operations budget.	September through June of each calendar year	Annual review of technology needs and refresh schedule.
2. Allocate and distribute hardware throughout the building to meet instructional requirements and improve student achievement.	Provide greater access of computers to students.	Technology	NHA Service Center	Knapp Academy annual technology operations budget.	September through June of each calendar year	Annual review of technology needs and refresh schedule.

## Goals – Healthy Students in a Safe, Orderly and Caring School

Goal	Objective / Strategy	Resources Needed (Human & Material)	Person(s) Responsible	Budget Needs	Time-line (Beginning & Ending dates)	Method of Evaluation
1. Provide students with technology access to improve student achievement in a safe and orderly and caring environment.	Continue to adhere to NHA policy guidelines consistent with CIPA and NCLB.	NHA Service Center resources.	Administrator. NHA Service Center ISS department	Knapp Academy annual technology operations budget.	Continuous throughout 2008-2011.	Increase and implement additional technology resources annually as needed.

# Curriculum and Instruction

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## Current Situation

While NHA provides a recommended curriculum scope and sequence for technology use and skill development, is focused on implementing these resources to ensure that all students develop the computer skills to be technologically literate by the time they leave the Eighth Grade.

With access to technology as outlined in the infrastructure & connectivity section of this plan, Knapp has the resources necessary to effectively deliver the curriculum. In addition, the school allocates time for technology use to meet NCLB (NETS) and Michigan Technology Standards (METS).

<b>Time Committed to Technology Instruction (Weekly)</b>	
Kindergarten	15 minutes
First Grade	30 minutes per month
Second Grade	30 minutes per month
Third Grade	30 minutes
Fourth Grade	40 minutes
Fifth Grade	40 minutes
Sixth Grade	50 minutes
Seventh Grade	100 minutes
Eighth Grade	100 minutes

Additional technology use is expected outside of technology-specific instruction. Students are asked to use technology to further their academic development through its use in content-specific projects such as curriculum-based presentations, classroom simulations, and research/review of Web-based content.

Knapp encourages the teachers' use of technology by providing real-time support through the Media Teacher. Based in the school, the Media Teacher consults with teachers on a daily basis to identify and support technology integration opportunities within the classroom. Through the school's affiliation with NHA, the school's Media Teacher meets regionally with other LTS' to share best practices with one another. The Media Teacher also meets on a regular basis with school leadership to review goals for technology education.

## Future

### Philosophy

- By incorporating NHA's approach to technology into the school environment, students at Knapp will develop information literacy skills through a comprehensive technology curriculum.
- These skills will be developed as the use of the technology is integrated into the course of each academic subject.
- Teachers will develop an appropriate technology skill-set through well-aligned staff development opportunities and will apply these skills in their instruction.

### Developing Technology Skills

- NHA's core academic curriculum is very rigorous, focuses on the development of foundational skills and background knowledge.
- It is essential that instructional time be provided for the development of these skills and to prioritize this instructional time relative to the core academic areas.
- While computer technologies should be used at all grade levels to support the delivery and enhance the effectiveness of instruction. In grades K-2 in the NHA scope and sequence, standards have been developed to accommodate technology instruction in K-2 as needed.
- During the upper elementary years (grades 3-5), the curriculum calls for students to develop specific technology skills that align with state and national standards. With the ultimate goal of having each 8<sup>th</sup> grade student technology literate, technology-skill instruction will be addressed in the context of academic coursework during each student's middle school education. NHA has provided for additional computers in the classroom as well as the media center lab setting.

## Technology Approach by Grade Level

	<b>Philosophy / Approach</b>	<b>Resources</b>
<b>K – 2</b>	<p>Technology skills are not formally taught or assessed.</p> <p>Technology is used throughout the curriculum to enhance instruction as appropriate and as indicated in the curriculum guidelines.</p> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• Students access technology in the classroom (Thin Clients) or the media center as part of an instructional activity. Use of technology is designed solely to reinforce mastery of the content material.</li> <li>• Teachers use technology to enhance the presentation of material to their students through simulation, projection, etc.</li> </ul>	<p><b>LCD projectors, Internet connectivity</b></p> <p><b>Limited student access to computers in common spaces or in the classroom</b></p> <p>Basic computer skills introduced in lab during NWEA skills training and testing time. Also in grades 1 and 2, the lab is used to introduce logging on and other basic Microsoft Office and keyboarding skills.</p>
<b>3 – 8</b>	<p>Instructional time is dedicated to developing specific technology skills such as:</p> <ol style="list-style-type: none"> <li>1. Computer operations</li> <li>2. File management</li> <li>3. Word processing</li> <li>4. Keyboarding</li> <li>5. Presentation tools</li> <li>6. Spreadsheet use</li> <li>7. Database basics</li> <li>8. Internet use &amp; responsibilities</li> </ol> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• All students in grades 3-8 take part in weekly keyboarding practice course.</li> <li>• Teachers provide students with technology-specific instruction to prepare them to apply the use of technology to their learning. For example, a teacher may give instruction on writing formulas in a spreadsheet in preparation for a unit in which data will be stored and evaluated using a spreadsheet.</li> <li>• Teachers will use a combination of curriculum-aligned activities and fully technology-integrated units of curriculum to deliver instruction and build technology skills as dictated by the Technology scope &amp; sequence.</li> </ul>	<p><b>LCD projectors, Internet connectivity</b></p> <p><b>Regularly scheduled student access to computers required in either a shared space (lab / media center) or in the classroom.</b></p>

## Timeline for Curriculum Integration

The following timeline serves to address the integrated technology activity a student will participate in at Knapp:

Grade Level	Integration Activity
K - 2	Classroom teachers are encouraged to lead technology integrated lessons when possible. They have access to resources on Curriculum Center enabling them to do so.
3 - 6	<p>Classroom teachers will teach technology integrated lessons encompassing the Technology Scope and Sequence within their core academic curriculum.</p> <p>Option 1: By following the recommended technology lesson sequence for Open Court (found on Curriculum Center), the teacher will accomplish the Technology goals for that grade level within the framework of the Open Court Reading Curriculum.</p> <p>Option 2: Alternatively, teachers may follow the recommended technology lesson sequence termed "Cross-Curricula" and will meet the technology objectives for that grade level within the framework of the core curriculum.</p>
6-8	Classroom teachers will continue to integrate technology into the core subject areas. In addition, a "Computer Teacher" will instruct students on the technology skills necessary to complete a technology literacy exam successfully. Students will be able to successfully complete an exam and will also be introduced to advanced technology concepts.

## Technology's Role in the Academic Curriculum

- Specific technology-related skills are not treated equally at each grade level, the underlying philosophy regarding technology's role in the delivery of instruction is consistent across all grade levels.
- Teachers and students will have access to tools (such as computers, scanners, digital cameras, LCD projectors, etc.) and curriculum that integrates the use of technologies.
- All teachers will be expected to develop basic competencies in the use of teaching technologies (see Technology Staff Development section of this document) and to use these technologies appropriately to enhance the delivery of instruction. Additionally, NHA will continue the development of curriculum that capitalizes on the multi-modal aspects of digital technology. (See **Appendix** for details of the Technology Skills Scope & Sequence)

## Online Access to Curriculum

- Internet-based technologies streamline the process for distributing of information. Through MyNHA website the Curriculum Center has access of a vast collection of curricular resources made developed for and aligned with the NHA curriculum. These resources include:

- Unit plans
- Lesson plans/Project based Learning Resources
- Background readings
- Presentations
- Activities
- Interactive Web sites
- Rubrics/Assessments
  
- Reading lists
  
- Handbooks

Each resource in this collection is aligned with specific content standards. Many of the lessons are also aligned with specific technology-skill objectives.

#### Managing Curriculum with Technology

- To support the management of student performance information at Knapp, NHA will develop and implement a tool set that will enable regular reporting of student performance based on assessment data.
  
- Teachers will be able to address student deficiencies by accessing the curricular resources that align with content standards and assessment tools. The use of information technology in this process is vital to the management of the data and reporting both teachers and school leaders need.

# Staff Development

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## Current Situation

Staff development is a critical element in the successful implementation and integration of technology in the school environment. Knapp understands the value of staff development and has dedicated the LTS to support this function.

Since staff development efforts are supported by the National Heritage Academies Service Center which provides ongoing professional development for all NHA staff members:

- New Teacher Orientation Conference – annually in August
- Regional Professional Learning Institutes – annually each fall and spring
- National Heritage Academy University - annually in July
- Specific curriculum workshops in reading, writing and technology
- School level professional development sessions, annual teacher skill survey, goals and evaluation of development process

## Future

### Staff Development Philosophy

Knapp is committed to including a technology plan that includes a well-organized and comprehensive staff development component. This component will be aligned with the academic curriculum, educational philosophy of the school, and will focus on challenging each child to achieve.

The NHA technology staff development framework contains several component processes. The core curriculum for staff development activities is based on METS for Administrators and METS for teachers and ISTE (International Society for Technology in Education) standards.

- NHA provides a comprehensive Library and EdTech Professional Development Calendar each year.
- NHA has prepared a Teacher Development Survey to assess skill levels and determine school level professional development.
- Professional Development funds available for MACUL, MIEM and other conferences sponsored by the state of Michigan.
- Weekly newsletters with technology resources, updates and advancement announcements available to all staff members through the NHA network.

# Connectivity & Infrastructure

## Current Situation

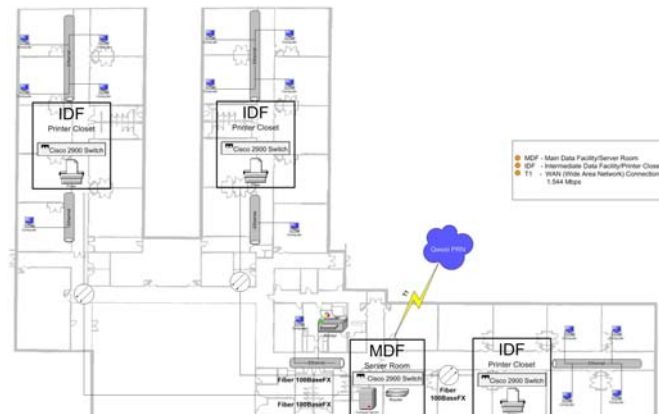
Through its affiliation with NHA, Knapp benefits from the professional services and shared infrastructure provided to all NHA affiliate schools. This infrastructure has been developed to support the needs of the school while minimizing the cost by effectively managing the infrastructure lifecycle, accessing shared resources, and leveraging economies of scale.

The current infrastructure at consists of the following elements:

- 1) Local Area Network (LAN)
- 2) Wide Area Network (WAN)
- 3) Internet Access
- 4) Telephony

## LAN Infrastructure

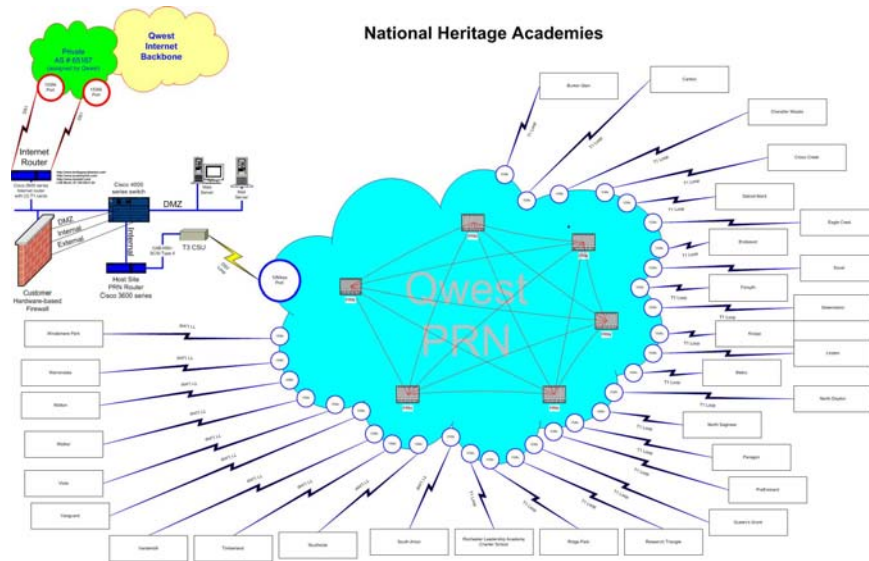
The active networking hardware operates at 100Mbps in a completely switched environment; providing 100Mbps access to each device on the network. The LAN utilizes TCP/IP exclusively. This component of the infrastructure is detailed more clearly in the diagram below:



The LAN was designed and installed by NHA's technology staff. All LAN management is handled through remote management tools by the NHA technical staff.

## WAN Infrastructure

Knapp receives many of its data services through its access to the NHA provided WAN. The WAN connectivity provides access both to NHA resources and to the Internet. The school currently has a T1 circuit provisioned through Qwest Communications. This circuit uses Qwest's Premium RPN service to connect securely to all other NHA sites in a "hub and spoke" topology. (see WAN diagram below)



WAN connectivity is monitored and managed remotely by the NHA technology staff

## Internet Access

Internet access for Knapp Academy is obtained through the schools connection to the NHA WAN. All traffic emanating from the school is routed through a web filtering solution.

## Telephony Infrastructure

Telephone access is provided in every classroom at Knapp Academy through 3Com's NBX voice over Ethernet system. The telephone system provides a high degree of functionality and individual voicemail. The NBX system includes a Web-based configuration tool employed by NHA's technology staff to provide support remotely for telephone issues. The specification for the NBX system our outlines in the table below:

## Personnel

### Current Situation

- NHA is committed to providing training and curriculum support at the school site.
- NHA has lowered the Total Cost of Ownership (TCO) of technology by centralizing technical support functions to its Grand Rapids office.

### Instructional Technology Support

- In order to provide teachers with high-levels of support for the use of technology, Knapp employs a full-time Media Teacher. The Media Teacher responsibilities include supporting the delivery of a technology-integrated curriculum and the delivery of staff development.

- The Media Teacher is focusing on the effective use of technology in the learning environment.
- The school's Media Teacher will assume the ownership and responsibility of the technology program within the school. Responsibilities will include oversight of building-level technology efforts, management of the staff-development program, and ongoing assessment of building needs. This person will work hand-in-hand with teachers to support the infusion of technology in the academic curriculum.
- The Media Teacher will truly be a member of the school staff. The school leader will be responsible for hiring and managing the Media Teacher. NHA is committed to providing professional development and program resources to the Media Teacher and providing guidelines for the educational technology process at Knapp Academy.

#### Information Technology Support

- NHA provides technology support services to Knapp through its NHA Information Technology team.
- This team provides centralized management of NHA's technological infrastructure, consults with school staff regarding technology needs and use, and sets IT policies for all NHA affiliate schools.
- The responsibilities of this team includes management of NHA's Wide Area Network (WAN), Local Area Networks (LANs), fileservers, desktop and portable computers, Web (WWW) servers, application servers, software configurations, etc. In addition to managing this infrastructure, the IT team provides a technical support through a centralized help desk made accessible via telephone or through a Web browser.

## Resources

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### Current Situation

#### Network Resources

- Technology that provides access and resources to students, teachers and the parent community.
- NHA Service Center support and school level support.

## Software

Knapp Academy provides access to a variety of software resources supplied and supported by NHA's technology staff. All resources are selected to meet the academic needs of the students and enhance the instructional process.

The software resources offered as part of the model can be grouped into three distinct categories: (1) instructional software, (2) productivity software, and (3) management software.

### Software Listing

- Destiny Library System, Graph Club, Timeliner, Inspiration, Encarta 2006, Finale Notepad, Type to Learn
- Bowmac REDI for School Emergencies, NWEA Test Taker, SIRS, TestWiz
- Windows XP Professional, Microsoft Office 2003 Professional, Access, Excel, Outlook, PowerPoint, Publisher, Word, Adobe Acrobat Reader 7.0, McAfee Virus Scan, Internet Explorer, Lifetouch Image, Yearbook Forms Wizard

### Publication of School Information

Knapp Academy envisions communications through the use of Internet technologies. NHA is equally committed to this goal by providing parent access to student information via At-School, a proprietary Web-based student information system. Moving forward, NHA has extended this functionality to include more school-related information (i.e. this School Technology Plan, calendars, publications, memos, etc.) and allow for parents to access it via the Web or to subscribe to content via E-mail. Knapp Academy will also begin to publish more content via the Knapp Academy school webpage developed by the Parent Ambassador Program.

Community resource use is encouraged, such as:

- Community and Regional libraries
- Intermediate School Districts, REMC's, and RESA's, student resources and professional development resources
- Annual Subscription to United Streaming/Discovery Education
- Online media and video teleconferences

# Hardware Recommendations

## Current Situation

Knapp takes advantage of its association with NHA for the procurement, installation, and lifecycle management of its hardware assets. NHA handles the installation and lifecycle management, for Knapp. Finally, this arrangement with NHA allows the school to access shared professional services from NHA. By spreading the cost of these services across all NHA affiliated schools, the Total Cost of Ownership (TCO) for TEA is minimized.

### School Assets

- Knapp maintains a 1 computer per student computer ratio during assigned computer lab periods. Additionally,
- Knapp is equipped with a full compliment of tier 1 networking equipment (Cisco or HP router and switches) as well as network attached workgroup printers located throughout the building and a multi-function printers/scanners/fax machine.
- For instructional purposes, Knapp also employs twelve LCD projectors throughout the facility.

### Controlling TCO through Lifecycle Management & Standards

Hardware at Knapp is procured, installed, and managed through its relationship with NHA. This arrangement allows the school to maintain its focus on the instructional uses of technology while relying on IT professionals at NHA to focus on issues of performance, scalability, reliability, TCO, licensing, etc.

NHA has adopted stringent hardware standards designed to ensure system reliability and performance while simultaneously minimizing support time and costs. These standards are enforced through acquisition and support policies and enable NHA to reach a 400:1 computer to technician ratio while maintaining the highest standards for support. Hardware standards address product continuity, total lifecycle cost, reliability, and performance. These criteria are applied to telephony hardware, desktop and portable computers, cabling, networking hardware, software, digital imaging devices, software, and management tools.

The following sections describe the current state of the hardware specified by NHA's hardware standards.

### Telephony Hardware

- NHA provides telephone access in every classroom, for ready access to communications in the event of an emergency; the telephone also provides a critical link that supports the Parent-Teacher partnership.

### Computer Hardware

- Personal computer: By providing and adhering to hardware standards, NHA's technicians are able to provide the highest service levels by making the computing environment consistent.

- When replacing existing computers, NHA is deploying thin client computers with an expected life of six years.
- Printers, networking components, and additional peripheral devices (scanners, digital cameras, etc.) are expected to exceed a four-year lifecycle and will be replaced at the end of their useful lives.
- NHA deploys technology:
  - Six years on the thin clients, without requiring any upgrades or maintenance.
  - Hardware is replaced through a scheduled process entitled “refresh” and provides for upgrades.
  - Each school is equipped with two (HP) servers with the primary purpose of storing data, managing network printing, and serving network enabled applications to client computers.
  - NHA’s technology group revises the standard annually to match the latest technology.

## Future Technology Purchases

- 5) Technology literate students with ready access to technologies that support the collection of information and the creation of content
- 6) Technology empowered teachers with access to technologies that enhance their instruction in effective and dramatic ways
- 7) Technology-enabled administrators able to effectively manage school operations and monitor academic progress at the student, classroom, and school levels.

Knapp will apply the following criteria to decisions related to hardware acquisition:

- 1) Instructional/curricular requirements
- 2) Operational requirements
- 3) State/industry standards
- 4) Support requirements (maintenance, remote management)
- 5) Total Cost of Ownership
- 6) Scalability
- 7) Return on Investment (ROI)

*Measured using both*

...methods that evaluate administrative efficiencies, productivity, and added value

*and*

...impact on student learning potential and curriculum delivery.

The establishment and application of these criteria will ensure the most effective use of technology and financial resources with the ultimate goal of improving student

performance. By leveraging the schools financial resources through the use of leasing and re-thinking the use of externally acquired funding.

- Knapp will review the technology equipment and curriculum yearly to insure continued progress toward student and staff technology competency and improved student achievement.
- Knapp is committed to the belief that every teacher should have access to technology that ties the use of technology with the delivery of instruction in a specific content area.
- Due to the sensitive nature of student information, the technology employed at each NHA school will be dependable, reliable, robust, and secure.
  - NHA's technology group will employ security best practices and currently has:
    - Scheduled security audits
    - group policies for desktop computer security,
    - policies for maintenance of security patches, employing encryption for the transmission of student data, implementations of secure technologies such as VPN, and PRN.

#### Technical Support Procedures

- All technical support issues are addressed through NHA's Tech Support Center. The technicians at this desk are available from 7AM – 7PM ET Monday – Friday. Trouble tickets can be opened via telephone or through a self-service Web interface. The technician connects to the computer remotely and demonstrates how to correct the problem to the customer.
- NHA will continue to seek more efficient methods for addressing technical support issues as both the technologies and the organization evolves.

# Guidelines

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## Current Situation

National Heritage Academies and Knapp Academy has adopted several guidelines and procedures to ensure compliance with applicable state and federal guidelines for technology use in schools.

Current Procedures	Developing Procedures
<p>Deployment Procedures</p> <p>Help Desk Technical Support Request procedure</p>	<p>Knapp is able to access ELL education technology resources.</p>
Current Guidelines	Established Procedures
<p>A hardware and software procurement policy that follows Information Resource Management (IRM) technology standards.</p> <p>CIPA compliant Acceptable Use Policy</p> <p>Data Integrity management</p> <p>Network security policy</p> <p>A policy for equipment maintenance, repair, replacement, and disposal</p> <p>A policy for equipment/materials donation</p> <p>A comprehensive policy for inventory control</p> <p>The media center is encouraged to post and practice guidelines as established by Hall Davidson (See Copyright below) and distributed by Tech Learning.</p>	<p>FERPA Laws and legislation is addressed in all handbooks and contracts.</p> <p>NHA does not participate in advertising and commercialism on school resources and equipment.</p> <p>Each NHA school has a school web page developed by the NHA Parent Ambassador Program.</p> <p>NHA provides Open House activities for parents and the community on a regular basis.</p> <p>NHA has established the Parent room at each school building and provides computer technology for parental use.</p>

### Equipment / Materials Donation

- NHA is not accepting donated equipment that does not meet the definitions of NHA's IT architecture.

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### Data Privacy

- NHA must develop and publish a data privacy policy in compliance with the Family Educational Rights and Privacy Act of 1974 (The Buckley Amendment), 20 U.S.C. S123g and 34 C.F.R. Part 99.

### Access to Information Policy

- NHA affiliated schools will have an Access to Information Policy as NHA develops Internet filtering mechanisms in accordance with Public Law 106-554, The Children's Internet Protection Act (CIPA) and the Neighborhood Children's Internet Protection Act. This policy must ensure adequate data retrieval capabilities for both students and staff and provide for legal requirements relating to Internet access. This policy will include disaster recovery.

# Copyright Protocol

Dated 11/09/06

- NHA employees who provide original written, musical or technical work for NHA, in the course of their employment, are bound by the terms and conditions of the Copyright Clause contained in the Employee Handbook.
- Vendors hired to create written, musical or technical work for NHA, should sign an Assignment of Copyright. The Assignment transfers all copyright ownership to NHA. An Assignment of Copyright can be obtained from Dani Phillips, Legal Services & Risk Manager (616.954.3090) or [dphillips@heritageacademies.com](mailto:dphillips@heritageacademies.com).
- Classroom Teachers are given considerable advantage in using copyrighted materials but should be trained in proper citation requirements and the scope of materials that can be copied.
- NHA customer service center employees who use materials from an outside source must follow the copyright clause displayed within the body of that source (e.g. a copyright clause may require permission before using the materials). NHA may be held to a higher standard than a Classroom Teacher. All sources should be properly cited.

## Copyright Training:

Step 1: Library Technicians should be the initial point of contact for questions regarding copyright use. The "*Copyright Guidelines for Administrators*" by Hall Davidson is an excellent resource for training ([www.techlearning.com](http://www.techlearning.com)).

Step 2: The above referenced poster may be used for nonprofit purposes. Approval must be submitted to [techlearning\\_editors@cmp.com](mailto:techlearning_editors@cmp.com).

Step 3: The "*Copyright Guidelines for Administrators*" should be displayed in the Library. Training of teachers should be conducted on-site and on a semi-annual basis.

Step 4: Copyright guidelines should be taught to students and volunteers by each individual teacher.

Step 5: Annual review should be conducted of the Technology Policy and Plan.

Step 6: Semi-Annual audits should be conducted of licensed and registration materials.

# Budget

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## Current Situation

### Budgeting Philosophy

- Technology expenditures at Knapp, combine the fixed costs and the variable costs, and are fundamentally tied to being successful in fulfilling the vision of all students becoming computer literate by the eighth grade.
- Hardware refreshes cycle for managing the cost of technology throughout its lifecycle. All equipment and software supplied through NHA is being purchased. The refresh cycle for thin client computers is six years and the remaining equipment is four years. The technology department may decide that a certain piece of hardware is still architecturally viable after the refresh cycle and will continue to deploy it.
- Budget allocations for the LTA role at Knapp are embedded in the school's personnel budget. This role is budgeted as a .5 FTE once the school has more than 400 students enrolled with a Library Technology Specialist employed at full time.
- Other budgeted items such as shared services provided by NHA (i.e. Internet access, WAN access, Help Desk) are accounted for in a billed services model. Other services such as access to Atschool / atschool.com, the curriculum center, development of the Technology Curriculum, support for the LTS/LTA are included as value-add services and are not billed or included in the school budget.

## School Budgets

<b>Knapp</b>		Desktops/Laptops	55	Thin Clients n-computing	68
<b>Network</b>	Annual cost				28
Internet		335			
School WAN		1736			
Service center WAN		617			
PRN		3472			
<b>Total</b>		6160			
<b>Access to Tech</b>	2008-2009	2009-2010	2010-2011		
Desktops/laptops	20625	750	750		
n-computing	2352	2352	2352		
Thin clients	9044	16100	16100		
Thin client server	2670	2670	2670		
<b>Total</b>	34691	21872	21872		
<b>Shareholder</b>	Annual cost				
Phones		1750			
<b>Security</b>	Annual cost				
Microsoft		7550			
Anti virus		744			
Content filter		1132			
Spam		304			
<b>Total</b>		9730			
<b>Staffing</b>	Annual cost				
Help desk		3510			

### Aligning the Budget

- The budgeting process for technology must not only account for acquisition of hardware, software, connectivity, and staffing, but it must also pay careful attention to the Total Cost of Ownership (TCO). NHA will continue to apply standards and IT best practices to reduce the TCO. NHA's policies and procedures ensure that software and hardware are utilized for their optimal life while staying current with the new technology advances.
- As evidenced in the **Infrastructure & Connectivity** section of the Technology Framework document, NHA is committed to developing systems, procedures, and support structures to improve technology's impact while reducing the TCO.

# Communication & Collaboration

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## Current Situation

- Through its association with NHA, Knapp is able to take advantage of school for communication and collaboration. NHA has demonstrated a strong commitment to use technology for communications. This system is has become a hallmark of our internal operations and serves as a major communication vehicle both within the organization and externally with parents.
- Principal Meetings – NHA currently provides technology updates (covering report card processes, resources, reviewing policies procedures, instructional practices and general questions) at monthly principal meetings for all NHA affiliated schools.
- LTS - Principal Meetings – LTS at each school have periodic meetings with school leaders, school leadership teams, and at full staff meetings to discuss educational technology issues at Knapp.
- Classroom Planning – LTS currently meet with individual teachers, small groups, or entire staffs to devise effective uses of technology with respect to the NHA curriculum.
- Regional LTS Meetings – As the primary support structures within the school, LTS must be well trained in the various aspects of their role. To support these efforts, NHA has committed resources that allow for regularly scheduled regional training sessions for LTS.

## Future

- WebEx and Video Conferencing capabilities currently being used and expanded capabilities in the future for collaborating with colleagues, parents and the community.
- *Intermediate School Districts* – Assist NHA with communication on state reporting regulations and access to state technology resources.
- *Universities & Colleges* – Local colleges and universities TEA may have opportunities to become part of pilot programs or benefit from access to the resources of the institutions.
- *Granting Agencies* – National Heritage Academies is able to collaborate with local foundations, institutions, or businesses to form partnerships.

# Evaluation

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## Current Situation

- Evaluation of technology integration efforts at Knapp:
  - Regular NHA Service Center Conference Calls with the Information Technology Department
  - Helpdesk assistance available on a daily basis
  - The LTS is primarily responsible for the implementation of the instructional and staff development portions of the technology plan.
  - The LTS and the school leader meet on a regular basis to assess the state of the technology efforts at the school.
  - On an annual basis, goals devised through the technology planning process are reviewed in the development of each school's annual action plan.

**TECHNOLOGY USER AGREEMENT  
AND PERMISSION FORM  
2007 - 2008**

A. As a parent or guardian of a student at National Heritage Academies, I have read the **Technology Acceptable Use Policy** about the appropriate use of computers at the school and I understand this agreement will be kept on file at the school. (Questions should be directed to the principal or technology department for clarification.) I have explained the following rules to my child to the best of my ability to help them understand the responsibilities that correspond with use of the NHA computer network:

- 1) The user's data must remain within the allocated disk space on all data drives and on the e-mail server.
- 2) Downloading or installing of any commercial software, shareware, or freeware onto network drives or disks is not permitted.
- 3) Copying other people's work or attempting to intrude into any user's folders or files is not permitted.
- 4) Using profane, abusive or impolite language to communicate and/or accessing, viewing, sending or displaying offensive, obscene, or abusive materials is not permitted.
- 5) Users must obtain a username and password from the National Heritage Academies Technology Department.
- 6) Sharing your password or allowing another person to access network resources under your username is not permitted.
- 7) Leaving a resource that you are logged onto unattended is not permitted.
- 8) Logging onto a resource for use by another person is not permitted.
- 9) Visiting non-education websites, chat rooms, or personal email accounts is prohibited.
- 10) Disclosing any sensitive data to others lacking the authority or right to view that data is not permitted.
- 11) Request a password change in the event you suspect your password is no longer confidential.
- 12) Using a computer to harm people or their work is not permitted.
- 13) Damaging the computer or the network in any way is not permitted.
- 14) Violating copyright laws is not permitted.
- 15) Wasting printing resources such as toner, color ink, and paper is not permitted.
- 16) Should students encounter any inappropriate material by accident, he/she should report it to their instructor immediately.

B. As a parent or guardian of a student at National Heritage Academies, I have read the above information describing the NHA position on the appropriate use of the Internet in the classroom. I understand my child will be using devices that are connected to the Internet in a supervised and educationally focused environment. I also understand that any breach of this "User Agreement" will result in the loss of computer privileges.

- ACCEPT** We accept and agree to abide by **the National Heritage Academies Technology User Agreement and Permission Form**. This agreement is on record and valid until my child is no longer enrolled with a school affiliated with National Heritage Academies.
- DECLINE** We decline the right to use the technology devices provided by National Heritage Academies.

**Student Signature:** \_\_\_\_\_

**Parent Name (print):** \_\_\_\_\_

**Parent Signature:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

*Please sign, date, and return this form to your school*

# Appendix A

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## Student Responsibility: Parent/Student Technology Acceptable Use Policy

Printed each year in the Student Handbook  
(reprinted from NHA Handbook 2006-2007)

### Introduction

National Heritage Academies is pleased to offer students access to a computer network for creativity, communication, research, and other tasks and duties related to the NHA academic program.

### Internet Use

The World Wide Web is a vast collection of resources readily available to any user on any computer connected to the Internet. NHA has lessons plans and software available that integrate the use of these resources.

Families must be aware that some material accessible via the Internet contains illegal, defamatory, inaccurate, or potentially offensive language and/or images. While the goal of the school is to use Internet resources to achieve educational goals, there is always a risk of students accessing other materials. We believe you should be aware of these risks.

Federal law states that computers connected to the Internet for student use must have a filtering technology in place for child safety and to satisfy e-Rate funding eligibility requirements.

NHA is in compliance with CIPA by deploying a Web content filtering product called Websense. Websense is hardware and subscription based product where NHA relies on the staff at Websense to categorize internet sites and then send updates to NHA site-based hardware. NHA blocks student access to all of the following categories of web sites:

- Abortion
- Adult Material, Including
  - Adult Content
  - Lingerie and Swimsuit
  - Nudity
  - Sex
  - Sex Education
- Internet Radio and TV

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Peer-to-Peer File Sharing  
Drugs, including  
    -Abused Drugs  
    -Marijuana  
    -Supplements and Unregulated Compounds  
Entertainment  
Gambling  
Games  
Computer Security and Hacking  
Image Servers  
Internet Communication, including  
    -Web-chat  
    -Web-based E-mail  
Militancy and Extremist  
Alternative News Journals  
Racism and Hate  
Non-Traditional Religions and Occult  
Shopping, including  
    -Internet Auctions  
    -Real Estate  
Society and Lifestyles, including  
    -Alcohol and Tobacco  
    -Gay, Lesbian, and Bi-Sexual Interest  
    -Personal Websites  
    -Personals and Dating  
Sport Hunting and Gun Clubs  
Tasteless  
Vehicles  
Violence  
Weapons

Also, any web site that is not one of the more than 13 million websites categorized by Websense is called Uncategorized, and is blocked from student access.

A process is in place for changing categorization of web sites through the education department at request of school staff.

#### CHILDREN'S INTERNET PROTECTION ACT (CIPA)

The Children's Internet Protection Act (CIPA) is a federal law enacted by Congress in December 2000 to address concerns about access in schools and libraries to the Internet and other information. For any school or library that receives discounts for Internet access or for internal connections, CIPA imposes certain requirements. In early 2001, the Federal Communications Commission (FCC) issued rules to ensure that CIPA is carried out.

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## What is required for CIPA compliance

- Under CIPA, schools and libraries subject to CIPA do not receive the discounts offered by the "E-Rate" program (discounts that make access to the Internet affordable to schools and libraries) unless they certify that they have certain Internet safety measures in place. These include measures to block or filter pictures that: (a) are obscene, (b) contain child pornography, or (c) when computers with Internet access are used by minors, are harmful to minors;
- Schools subject to CIPA are required to adopt a policy to monitor online activities of minors; and
- Schools and libraries subject to CIPA are required to adopt a policy addressing: (a) access by minors to inappropriate matter on the Internet and World Wide Web; (b) the safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications; (c) unauthorized access, including so-called "hacking," and other unlawful activities by minors online; (d) unauthorized disclosure, use, and dissemination of personal information regarding minors; and (e) restricting minors' access to materials harmful to them. CIPA does not require the tracking of Internet use by minors or adults.

(Source: [www.fcc.gov](http://www.fcc.gov))

## How Websense Helps Schools and Libraries Comply with CIPA:

- Obscenity and Pornography Filtering - Websense allows schools and libraries to manage internet access to over 90 URL categories including Racism and Hate, Adult Material, Hacking and other topics pertinent to CIPA.
- Accurate Web Filtering - Websense offers the best-of-breed filtering database with over 13 million URLs.
- Filtering of Search Engine Images - Websense filters inappropriate images that can be found in search engine query results.
- Blocking of Spyware, Malicious Mobile Code and other Security Threats—With Websense's Security Premium Group and Web Security Suite, sites with worms, spyware, phishing and other threats to personal information, can be blocked, helping to meet CIPA's requirement for protection of a minor's personal information.
- Monitoring - Websense reporting tools, Explorer, Reporter and Real-Time Analyzer offer many different ways to monitor and report on the online activities of minors.
- Policy Management on a Per User or Per Group basis - Websense allows you to customize your internet policies based on a user or group. Therefore, you are able to set appropriate policies based on age or needs.

While there are risks, we believe that the benefits of using technology outweigh the disadvantages. Our teachers will be trained in the appropriate use of technology with students. We will make every effort to integrate the schools Moral Focus with lessons that utilize technology, but ultimately, parents and guardians of minors are responsible for setting and conveying the standards for students regarding the use of media and information sources at home and at school. Therefore, we support and respect each family's right to decide whether to allow their child to access the NHA computer network by having the

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option of accepting the **Technology User Agreement and Permission Form**. However, by choosing not to accept the **Technology User Agreement and Permission Form**, your child will not have permission to use a computer or any device attached to the NHA computer network.

## Responsibilities and Expectations

All use of computers, furnished or created data, software and other technology resources as granted to the employee and student body are the property of National Heritage Academies and are intended for business and educational use. Network users shall not access, or willingly allow another person to access, any network resource without proper authorization.

Students are responsible for appropriate behavior on the school's computer network just as they are in a classroom or on a school playground. Communications on the network are often public in nature. General school rules for behavior and communications apply. It is expected that users will comply with this policy and the rules set forth on the **Technology User Agreement and Permission Form**. The use of the network is a privilege, not a right, and may be revoked if abused. The user is personally responsible for his/her actions in accessing and utilizing the NHA computer network and/or the computer resources of the school.

## General Rules of the Network

1. **Privacy:** Network storage areas may be treated like school lockers. National Heritage Academies reserves the right to monitor Internet traffic, retrieve and read any data composed, sent, received, and/or stored using our network and/or Internet connections. Network administrators may review communications to maintain system integrity and ensure that students are using the system responsibly.
2. **Storage Capacity:** Users are expected to remain within the allocated disk space and delete e-mail or other material, which take up excessive storage space.
3. **Proper Usage of Printing Resources:** Users are expected to use good judgment when printing on network printers. Paper, toner and color ink can be costly and excessive use of these resources is wasteful. Please proofread documents carefully before printing. Only print the part the document needed. In addition, users must obtain permission from their instructor before printing documents on the color printer. The color printer should only be used for work submitted as part of an assignment or project that requires color copy. All color printing should be done under direct supervision of the instructor overseeing the project.
4. **Illegal Copying:** Users should never download or install any commercial software, shareware, or freeware onto network drives or disks. Nor should users copy other people's work or attempt to intrude into other people's files. All copyright laws must be respected. A copy of the copyright laws pertaining to digital property can be obtained from the Technology Department.

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5. Inappropriate Materials or Language: Profane, abusive, pornographic and/or impolite language or materials is not permitted on the NHA computer network. Accessing materials not in line with the rules of school behavior is not permitted. A good rule to follow is never view, send, or access materials that you would not want your instructors and parents to see. Should students encounter any inappropriate material by accident, he/she should report it to their instructor immediately.
  6. Virus Protection: All data from outside sources will be scanned for viruses before use on any computer within the NHA network. Downloading/saving of non-work related attachments to e-mails, on any computer within the NHA network, is not allowed unless proper authorization is obtained from their instructor.
  7. Only either NHA purchased or specifically approved hardware, software or other technology may be used in the school building and/or on the network. Non-NHA standard equipment exposes significant security, virus and licensing risks. Any technology that does not meet the purchased and/or the approved test is prohibited.
  8. The School prohibits acts of cyber-bullying, which is a sub-set of bullying and involves the use of information and communication technologies, including but not limited to e-mail, cell phone and pager text messages, my-space.com, on-line social directories, instant messaging, defamatory personal Web sites, and defamatory online personal polling Web sites, to support deliberate, repeated or hostile behavior by an individual or group, that is intended to harm, intimidate or harass others on School time or School premises, or off School time or School premises if such acts defame, harm, threaten, harass, intimidate or bully other students or staff or the School.

### Protection of Data

1. Every effort will be made to ensure the safety and integrity of your data using a daily backup system and other security measures. However, National Heritage Academies makes no warranties of any kind either expressed or implied, for the service it provides.
2. National Heritage Academies will not be responsible for any damage to your data. This includes loss of data resulting from delays, non-deliveries, mis-deliveries, or service interruptions caused by the NHA computer network, outside networks, and/or your errors or omissions.
3. Use of any information obtained via the Internet is at your own risk. National Heritage Academies is not responsible for the accuracy or quality of information obtained through the Internet or the NHA computer network.
4. Vandalism and/or the failure to abide with this policy and/or failure to abide with the rules set forth by the Technology User Agreement and Permission Form may result in cancellation of any or all network privileges. Vandalism is defined as any malicious attempt to harm or destroy any files and/or school hardware or software.

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### Installing Software

Network users are NOT authorized to install any software on any computers or computer related technology within the NHA computer network. Any software installed by anyone other than the network administrator will not be supported by NHA technicians and will be removed from the computer(s) on which it was installed. This is necessary to maintain network integrity and to follow all applicable software licensing agreements.

### Publishing of Student Work and Photographs

From time to time, student work and photographs may be published on NHA's Intranet. This work may be published in a manner that is accessible on the World Wide Web. By agreeing to this policy, you are granting the right to use your child's work and/or photograph on an Internet accessible server.

### Additional Information

1. Users are expected to be responsible, courteous and thoughtful when using school computers. Common sense should prevail. The use of the NHA computer network should be in support of education and research and consistent with the educational objectives of National Heritage Academies.
2. Teachers are expected to monitor student use of computers.
3. While Internet usage is intended for work-related activities, incidental and occasional brief personal use is permitted within reasonable limits with the instructor's permission.
4. Use of any other organizations' network(s) or computing resources via our network must comply with the rules appropriate for that network and the instructor's permission.
5. Transmission of any material in violation of any U.S. or state regulation is prohibited. This includes, but is not limited to: copyrighted material, threatening or obscene material, or unlawful material.

Enforcement of this measure is found in the following policy:

*Student Internet usage is permitted only via the NHA network and only in the presence and supervision of a teacher, the child's parent or guardian, or other designated adult school personnel. All adults who monitor student activity on the Internet will be approved by the school, have read and signed the NHA Acceptable Use Policy detailed above, and be familiar with the safety/protection technology already installed on the NHA network.*

## National Heritage Academies Technology Curriculum Scope and Sequence

(May 2006)

for Teachers (Staff development Survey)

The following standards were determined and approved by NHA EdTech Team. These standards will be reviewed each year to determine appropriateness. A teacher's progression from novice to proficiency is marked on the sequence by the broad categories.

<b>N</b>	Novice: Introduction and overview of learning concepts/areas
<b>B</b>	Basic: Developed skills through planned training sessions
<b>P</b>	Proficient: Applied learning without direction
<b>C</b>	Technology Coach: Can train and assist others

### Network Basics

		Years as a NHA Teacher	NTT	1	2	3	4	5
<b>Login and Network:</b>								
	NHA Technology Standards & Model							
	Log-in to the NHA Network	N	B,P	P	P	P	P	C
	Identify and use school network drives such as the Personal Z.; Universal & Project Drive(s)	N	B,P	P	P	P	P	C
	Contact the NH Help Desk (electronic tickets and telephone)	N	B	P	P	P	P	C
	Understand the process and purpose of the NHA Desktop Image	N	B	P	P	P	P	C
	Identify and use other drives (e.g. A: Floppy & D: CD; other...)		N,B	P	P	P	P	C
	Locate computer identification information (e.g. IP address & Serial Number)		N,B	P	P	P	P	C
	Reset a Student's Password		N	B	P	P	P	C
<b>File Management:</b>								
	Save and Retrieve documents (Name a file, choose a location and retrieve saved files)		N,B	P	P	P	P	C
	Distinguish between Save and Save As			N,B	P	P	P	C
	Create, save, open and move documents inside sub-folders			N	B	P	P	C
<b>Printing:</b>								
	Set a default printer		N,B	P	P	P	P	C
	Select various printers within the building		N,B	P	P	P	P	C
	Print only selected pages from documents		N,B	P	P	P	P	C
	Print duplex		N,B	P	P	P	P	C

### Electronic Mail

	Create a New message; Add multiple recipients	N,B	P	P	P	P	P	C
	Reply to a message	N,B	P	P	P	P	P	C
	Forward a message	N,B	P	P	P	P	P	C
	Use the Address Book (Search for mail recipients)	N,B	P	P	P	P	P	C
	Add Attachments to E-Mail (e.g. pictures, documents)	N,B	P	P	P	P	P	C
	Open an Attachment from E-Mail	N,B	P	P	P	P	P	C
	Download an Attachment to an appropriate storage area (network drive)	N	B	P	P	P	P	C
	Organize E-Mail (create and use filing folders; role of Public Folders)		N,B	P	P	P	P	C
	Sort messages (by name, date subject)		N	B	P	P	P	C
	Delete E-mails (clean out your Mailbox)		N	B	P	P	P	C

	Create Distribution and Contact Lists		N	B	P	P	C
	Use the Outlook Web Access Calendar			N	B	P	C

### AtSchool Student Information System

Atschool Teacher Modules:							
	Attendance		N,B	P	P	P	C
	Gradebook		N,B	P	P	P	C
	Progress Reports		N	B,P	P	P	C
	Report Cards		N	B,P	P	P	C
	Publications (newsletters)		N	B,P	P	P	C

### Hardware

	Set up and use Mobil Laptop Cart		N	B	P	P	P	C
	Set up and use mobile Keyboarding System		N	B	P	P	P	C
	Set up and use the LCD Projector		N	B	P	P	P	C
	Basic Troubleshooting			N,B	P	P	P	C
	Use the Telephone System			N,B	P	P	P	C
	Use the Scanner			N	B	P	P	C
	Use the Digital Camera			N	B	P	P	C
	Use the digital Video Camera				N	B	P	C

### Microsoft Software Applications

MS Word: Word Processing								
	Enter text into a new Word Processing document			N,B	P	P	P	C
	change the font and size of text			N,B	P	P	P	C
	Align text with alignment buttons			N,B	P	P	P	C
	Highlight text with the mouse			N,B	P	P	P	C
	change the format of text with bold, italics and underline			N,B	P	P	P	C
	Use the cut and paste commands			N,B	P	P	P	C
	Use the menu bar functions			N,B	P	P	P	C
	Insert and format Clip Art			N,B	P	P	P	C
	Use Spell Check			N,B	P	P	P	C
	Learn Keyboard short-cuts (Ctrl-V = Paste, etc...)				N,B	P	P	C
	Learn to use headers and footers				N,B	P	P	C
	Insert and format other digital images				N,B	P	P	C
	Word Processing Tasks - The Options Menu				N	B	P	C

MS Publisher: Desktop Publishing								
	Use the Publisher Menu Bar Functions			N,B	P	P	P	C
	Resize, group and move objects			N,B	P	P	P	C
	Link text boxes for text flow				N,B	P	P	C
	Add other digital images				N,B	P	P	C
	Add and Delete Pages				N,B	P	P	C
	Locate and use existing templates from the Template Wizard				N,B	P	P	C

MS Excel: Spreadsheets								
	Use the mouse to select and enter data into a cell			N,B	P	P	P	C
	Spreadsheet: Learn to add/subtract cell information			N,B	P	P	P	C

	Spreadsheet: Formatting (cells; columns; rows)		N,B	P	P	P	C
	Spreadsheet: Learn spreadsheet terms		N,B	P	P	P	C
	Spreadsheet: Learn to graph or chart		N,B	P	P	P	C
	Spreadsheet: Create basic formula functions			N,B	P	P	C
	Learn to use headers and footers			N,B	P	P	C
	Advanced Spread sheeting (Sorting, Filters, Freeze Panes; Copying Worksheets)				N,B	P	C

### MS PowerPoint: Presentations

	Use a PowerPoint Presentation template		N,B	P	P	P	C
	Learn how to create and use a design template			N	B	P	C
	Learn how to create a basic presentation			N	B	P	C
	Learn how to format a presentation with slide transitions and animation			N	B	P	C
	Learn how to insert multimedia (sound, video, etc.) and hyperlinks			N	B	P	C

### MS Access: Databases

	Know how to start a new database document				N	B	P,C
	Know database terms				N	B	P,C
	Know how to create fields and enter information into records				N	B	P,C
	Learn to sort the database based on one field				N	B	P,C
	Perform a search based on one or more fields				N	B	P,C

### MS FrontPage: Web Page Design

	Learn how to select and use a design template					N,B	P,C
	Create a basic page with text, graphics and links					N,B	P,C

### Graphics & Images

	Know how to use basic graphic tools such as MS Photo editor				N	B	P	C
	Know how to use basic painting/drawing tools such as MS Paint				N	B	P	C
	Know how to select specific areas of a painting or graphic				N	B	P	C
	Knows the difference between several graphic formats				N	B	P	C
	Printing to a page				N	B	P	C

### Working with the Internet - World Wide Web

	Filtering @ NHA		N	B	P	P	P	C
	Manually enter an Internet Web Address (URL)			N,B	P	P	P	C
	Learn Internet Explorer button functions (back, forward, stop, etc.)			N	B	P	P	C
	Know basic internet terms			N	B	P	P	C
	Learn to build and organize a 'Favorites' list of most used websites			N	B	P	P	C
	Know how to create website shortcuts and hyperlinks in MS Word			N	B	P	P	C
	Know how to search and use keywords for information within a search engine program				N	B	P	C
	Know how to search for and download graphics/images within a search engine program				N	B	P	C

### NHA Educational Software

	Know how to use Graph Club		N	N	B	P	P	C
	Know how to use Timeliner		N	N	B	P	P	C
	Know how to use Inspiration		N	N	B	P	P	C
	Know how to use MS Encarta		N	N	B	P	P	C
	Know how to use Type to Learn		N	N	B	P	P	C
	Know how to use Accelerated Reader		N	N	B	P	P	C

Education and Curriculum							
Online Resources							
	Know how to access Curriculum Center	N	B	P	P	P	C
	Know how to access and use NHA History Interactive materials	N	B	P	P	P	C
	Know how to locate Gradebook grading content.	N	B	P	P	P	C
	Know how to locate electronic versions of Curriculum Binders	N	B	P	P	P	C
	Know how to access, download and print lesson resources from Curriculum Center	N	B	P	P	P	C
	Know how to locate and use e-curriculum	N	B	P	P	P	C
	Know how to contribute lessons and resources to the NHA Curriculum Center			N	B	P	C
Technology Curriculum							
	Interpret and understand the NHA Technology Scope & Sequence of Content Standards	N	B	P	P	P	C
	Know how to access, download and print grade appropriate technology curriculum resources	N	B	P	P	P	C
	Deliver curricular instruction that incorporates the use of Technology		N,B	P	P	P	C
	Access and download resources to effectively assess and track student progress of technology skills		N,B	P	P	P	C
	Design lessons that incorporate the use of technology to enhance computer literacy in students.		N	B	P	P	C

# ational Heritage Academies Technology Scope and Sequence for Students

(July 2006)

		N	Novice: direct instruction of the technology objectives.				
		B	Basic: apply the technology objective with direction.				
		P	Proficient: apply technology objective without direction.				
<b>Content Standard 1: Students will demonstrate awareness, knowledge and appropriate usage of computer hardware components.</b>							
Mouse Skills:		3	4	5	6	7	8
	Point and Click/Double Click	N	B	P	P	P	P
	Point and Select from Menu	N	B	P	P	P	P
	Point, Click, and Drag	N	B	P	P	P	P
	Know the basic functional differences between left and right mouse buttons.			N	B	P	P
Keyboarding Skills:							
	Use typing tutorial program.		N	B	P	P	P
	Proficiently type, using proper hand position, with all alphanumeric keys.		N	B	P	P	P
Other:							
	Identify and know the basic functions of computer hardware.	N	B	P	P	P	P
	Know potential hazards that could damage computer hardware.	N	B	P	P	P	P
	Learn NHA's student computer usage policies.	N	B	P	P	P	P
	Know basic facts about networked computers.			N	B	P	P
	Uses a variety of input and output devices. (Scanner, digital camera, etc...)			N	B	P	P
	Know the differing capacities and trade-offs for computer storage media.				N	B	P
<b>Content Standard 2: Students will demonstrate awareness, knowledge and usage in file management and basic computer operation.</b>							
File Management:		3	4	5	6	7	8
	Save (Name, Choose a location)	N	B	P	P	P	P
	Retrieve saved documents	N	B	P	P	P	P
	Distinguish between Save and Save As		N	B	P	P	P
	Create back-up of documents.			N	B	P	P
Computer Operation Skills:							
	Know how to start a computer software program	N	B	P	P	P	P
	Cut, Copy, Paste		N	B	P	P	P
	Manipulate Windows (Task Bar, Close Button, Minimize Button, Maximize Button, Restore Window Button)		N	B	P	P	P
	Trouble-shoot simple problems.				N	B	P
<b>Content Standard 3: Students will demonstrate awareness, knowledge, and usage of a word processor, spreadsheet, and database.</b>							
Word Processing:		3	4	5	6	7	8
	Know how to start a new word processing document.	N	B	P	P	P	P
	Change the font and size of text.	N	B	P	P	P	P

	Align text with alignment buttons.	N	B	P	P	P	P
	Highlight text with the mouse.	N	B	P	P	P	P
	Change the format of text with bold, italics and underline.	N	B	P	P	P	P
	Know how to print independently.	N	B	P	P	P	P
	Use the cut and paste commands.		N	B	P	P	P
	Use the menu bar functions.		N	B	P	P	P
	Insert clip art		N	B	P	P	P
	Use Spell Check			N	B	P	P
	Learn Keyboard short-cuts (Ctrl-V = Paste, etc...)				N	B	P
	Learn to use headers and footers.				N	B	P
Spreadsheet:							
	Use the mouse to select a cell.	N	B	P	P	P	P
	Enter data into a cell.	N	B	P	P	P	P
	Learn spreadsheet terms.		N	B	P	P	P
	Know how to start a new spreadsheet document.		N	B	P	P	P
	Learn to graph or chart.			N	B	P	P
	Learn to add/subtract cell information.			N	B	P	P
	Create formula functions.					N	B
Database:							
	Know how to start a new database document.				N	B	P
	Know database terms.				N	B	P
	Know how to create fields and enter information into records.				N	B	P
	Learn to sort the database based on one field.				N	B	P
	Perform a search based on one or more fields.				N	B	P
Other:							
	Know basic distinctions among computer software programs, such as word processors, special purpose programs, and games.		N	B	P	P	P
	Start using multiple applications to complete one document or project. (e.g. Insert a spreadsheet into a word processing document)				N	B	P
	Know how formats differ among software applications and hardware platforms.				N	B	P
Content Standard 4: Students will demonstrate knowledge of creating and using graphics, desktop publishing, and creating presentations.							
		3	4	5	6	7	8
Graphics:							
	Know how to use basic painting and drawing tools.	N	B	P	P	P	P
	Put shapes together to create a picture.	N	B	P	P	P	P
	Know how to use advanced painting and drawing tools.			N	B	P	P
	Know how to select specific areas of a painting or drawing.			N	B	P	P
	Know how to use cut, copy, and paste with selected shapes.			N	B	P	P
	Know the differences between several graphic formats.				N	B	P
Desktop Publishing/Presentations:							
	Know how to insert clip art.			N	B	P	P
	Learn how to select and use a template.			N	B	P	P
	Know how to zoom in and out.			N	B	P	P
	Learn how to create a basic presentation.			N	B	P	P
	Use special hardware devices for input within a document (scanner, digital camera).			N	B	P	P
	Learn how to format a Presentation.				N	B	P
	Complete a content area project.				N	B	P
	Complete and present a content area project presentation using Microsoft PowerPoint.				N	B	P
	Use multimedia within a document/presentation. (video, animation, sound, etc...)				N	B	P

**Content Standard 5: Students will demonstrate awareness, knowledge and usage of the World Wide Web and research tools that leverage technology.**

	3	4	5	6	7	8	
Know how to search for information within a reference-based software program.	N	B	P	P	P	P	
Learn Internet etiquette: do's and don'ts	N	B	P	P	P	P	
Know basic Internet terms.	N	B	P	P	P	P	
Manually entering an Internet web address (URL).			N	B	P	P	
Learn how to search and use keywords within a search engine.			N	B	P	P	
Learn Internet Explorer button functions (back, forward, stop, etc..).			N	B	P	P	
Learn to access, send and reply with e-mail.			N	B	P	P	
Learn how to download graphics.			N	B	P	P	
Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems.					N	B	P

**Content Standard 6: Students will demonstrate an understanding of the relationships among science, technology, society, and the individual.**

	3	4	5	6	7	8
Know ways that technology is used at home and school.			N	B	P	P
Know that new tools and ways of doing things affect all aspects of life, and may have positive or negative effects on other people.			N	B	P	P
Understand that when an individual creates something on a computer, the created work is that person's property, and only that person has the right to change it.			N	B	P	P
Know that technologies often have costs as well as benefits and can have an enormous effect on people and other living things.			N	B	P	P
Know that new inventions often lead to other new inventions and ways of doing things.			N	B	P	P
Know areas in which technology has improved human lives.			N	B	P	P
Understand the concept of software piracy.			N	B	P	P
Know ways in which technology has influenced the course of history.				N	B	P
Know that science cannot answer all questions and technology cannot solve all human problems nor meet all human needs.					N	B
Know examples of copyright violations and computer fraud and possible penalties.					N	B
Know that technology and science are reciprocal. They both are the driving force behind each other.						N
Know ways in which technology and society influence one another.						N

**Content Standard 7: Students will demonstrate an understanding of how technology can be used as a tool for problem solving and decision making.**

	3	4	5	6	7	8
Know that objects occur in nature; but people can also design and make objects.	N	B	P	P	P	P
Know that tools can be used to observe measure, make things, and do things better and/or more easily.	N	B	P	P	P	P
Know that people are always inventing new ways to solve problems and get work done.	N	B	P	P	P	P
Identify a simple problem that can be solved using technology.			N	B	P	P
Know constraints that must be considered when designing a solution to a problem.			N	B	P	P
Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems.			N	B	P	P
Know that people have invented and used tools throughout history to solve problems and improve ways of doing things.			N	B	P	P
Identify appropriate problems for technological design.					N	B
Design a solution or product, taking into account needs and constraints.					N	B
Implement a proposed design.					N	B