ANDOVER CENTRAL SCHOOL
Andover, New York
35 Elm Street
Andover, NY 14806
TECHNOLOGY PLAN
2018-2021

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http://www.andovercsd.org/

Contact: **Mike Chaffee**
Technology Coordinator
(607) 478-8491 Phone
(607) 478-8085 Fax
mchaffee@andovercsd.org

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TECHNOLOGY PLAN

MISSION OF THE ANDOVER CENTRAL SCHOOL DISTRICT

The Mission of the Andover Central School System is to inspire within all the desire to learn, to succeed, and to expand the horizon for each individual. Our School will be a safe teaching community, which celebrates our achievements and encourages active partnerships with families and the entire community. We will empower our students to embrace the challenges as worthy citizens in our American society of representative democracy.

1.0   Introduction

School and Community Demographics

Andover Central School is a Pre K-12 school district located in the rural community of Andover, New York in Allegany County. It currently serves approximately 370 students. It is served by one superintendent and one building principal. Andover employs 42 teachers and is considered a high needs district. Andover also falls under the category of Title 1.

1.1 Planning Process Overview

Teachers, students, parents, community members, business leaders and local government have been involved from the early stages in the planning, development, implementation, and evaluation of the ACS Technology Plan. Representatives from a broad range of local sources are members of the Technology Committee. The District is part of a joint partnership with local government in the use of a computerized weather station. In addition, input through surveys regularly informs the planning of the technology committee. Information is sought from teachers, staff members, students, community members, and recent Andover graduates.

The Andover Central School Shared Decision Making Team will be included in technology planning and implementation of this technology plan. This will be accomplished through representation on the committee by a member of the SDM team. Technology planning documents are reviewed by the site-based teams and forwarded to the overall district Technology Planning Team for inclusion in the district-wide plans.

Non-public schools were not a part of the technology planning process. There are no non-public schools in the District.

1.2 <u>Involvement of Stakeholders in Planning</u>

The Andover Technology Committee is composed of people who represent a cross section of our school and community. The support of key stakeholders is essential to sustain the broad-based, continual support needed for long-range technology planning. Membership on the committee is offered to teachers, administrators, students, support staff, parents, and business and community leaders. The active involvement of a wide spectrum of people is very important to the overall success on any technology planning effort. The ACS stakeholders and Shared-Decision Making Team will be included in technology planning and implementation of this technology plan.

To help generate program understanding and support, public presentations are made each year.

<u>Current Stakeholders</u>
Molly Mattison-	Teacher
Linda Geer -	Business Manager
Kate Cornel-	Curriculum Director
Michael Hulse -	Building Maintenance Supervisor
Mike Chaffee -	Technology Coordinator
Jon Morris-	Building Principal
Sean Reilly -	Teacher
Aaron Brubaker-	Teacher
Cindy Baker-	Board Member
Lawrence Spangenburg-	Superintendent

1.3   <u>Technology and Education Reform</u>

The enterprise of schooling in Andover Central School will be focused on student acquisition and mastery of the New York State Learning Standards. Through internet access and training; teachers, parents, and students will be able to access educational resources. District personnel have researched teaching practices that integrate technology into the curriculum. Professional development delivered by the BOCES and other providers has emphasized the use of proven instructional technology practices.

The use of technology will help students understand, evaluate, integrate, and construct information in multiple formats. The district emphasizes integrating Internet resources into the curriculum, as well as providing construction and design opportunities for our students. Andover teachers will develop the knowledge and skills required of alternative types of pedagogy and content, thereby improving the educational opportunities of all children.

2.0   Vision

Our vision is to improve student learning in the Andover Central School. Computer assisted instruction, enhanced presentation methods, communicating by E-mail, conducting research on the internet, manipulating and creating information on the computer, and the use of other technological innovations are only as purposeful and relevant as the levels of skill and learning demonstrated by our students. The Andover Central School Technology Committee recognizes that in order for technological innovations to realize their potential in improving student performance results, other simultaneous innovations must occur in the pedagogy, curriculum, assessment, and organization of our school.

The technology vision of Andover Central School is to utilize technology to improve the acquisition of the knowledge and skills of our students by:

- Using technology as a tool to help our students attain the New York State Learning Standards.

- Using technology to promote the education excellence requirements under "No Child Left Behind" and "Race to the Top" and additional requirements.

- Helping develop communication skills in all disciplines and classes in our school.

- Helping develop the technology skills our students will need to navigate successfully in the larger world.

- Enhancing our ability to gather and utilize relevant information from around the globe.

- Expanding our ability to provide career opportunities and explorations.

- Supporting the ability to develop K-12 curriculum and monitor student progress at meeting curriculum goals.

- Helping our students become competitive both locally and globally.

2.1   Commitment to Ongoing Community Communication

Andover Central School is in the process of updating and expanding our school website to better fulfill the communications between the school and parents and the school and community. We also have links on the Andover community website.

We will continue to work with our public library and our BOCES services to expand on-going literacy services.

2.2   Adult Literacy is provided through other Andover agencies and the Andover Library.

The Andover Technology Committee has developed an extensive Acceptable Use Policy regarding network and internet usage. In addition, each student, grades 7-12 is required to take a thorough network and internet training program. Parents will also be provided with opportunities for basic technology instruction.

Support of State Curriculum Standards - Andover Central School is using technology to improve student learning outcomes. The New York State Learning Standards are the foundation of all curriculum, instruction, and assessment efforts in New York State. The Learning Standards provide a portrait of the knowledge and skills that our students are expected to acquire and apply through their schooling. Technology is integrated into curriculum and learning activities aimed at improved student learning and attainment of the New York State content and performance standards. In Appendix A is a list of standards and competencies that teachers at Andover Central School follow. By using these standards and competencies we will be preparing our student college, the workforce, and the "real world".

Integrating Technology Into Curriculum - Our children will live in an information rich society unimaginable just a few short decades ago. To successfully navigate in today's world, all children need to define information problems, plan search and access strategies, and analyze, evaluate, organize and present information.

Technology skills cannot be learned in isolation. Students use technology as a vehicle to assist their acquisition of knowledge and skills and the use and application of that knowledge and skills in unique and rigorous contexts.

Acquired technologies will be integrated into the K-12 curriculum in the following ways:

Information Systems

The variety and scope of available software for instruction continues to grow rapidly, making its way into mainstream instructional practice. The technological tools found in schools must be used to promote the varied types of learning as well as learning styles and abilities. For example, educational software should address curriculum priorities and should be:

- inquiry based
- interactive
- reflective of real life applications
- student-directed
- objective-based

Therefore, software selected for instructional purposes must take into consideration curriculum goals, teaching styles at the various levels, and learning styles and abilities. In order to directly address goals, priority should be given to software in the areas of word processing skills and desktop publishing, critical thinking skills development, developing process skills through the curriculum, and network accessing skills.

As in any other profession, education's technological tools continue to evolve and improve. Providing the administrators, teachers, staff, and students with the best tools available will enable them to perform their respective tasks more effectively and productively. In addition to the rich academic preparation the students will receive in all subject areas, they will also become more aware of the technology tools available to support information access, analysis, synthesis, management, and communication.

(See Appendix A as taken from the New York State standards for teachers and as provided from BOCES Technology Competencies.)

3.0 GOALS TO ACHIEVE

- Enhance programs to improve student literacy in the use of new technologies.
- Upgrade technologies in the production of the stem classroom.

- Provide USB Microscopes to the Science Classrooms.

- Implement a robotics program to facilitate cross curriculum projects in the Production Technology Program.

- Computer upgrades and Upgrades of the Server room and switch rooms.

- Provide a process for maintaining and supporting technology within the District. Improve and expand wireless network.

- Improve student achievement through the use of technology.

- Provide continual education opportunities for teachers in the use of technology.

- Provide parents and the community with technology skills and resources to support student success.

- Continue exploration of upgrading hardware and software in technological innovation.
- Offer Distance Learning course to the general public.

4.0   PROFESSIONAL DEVELOPMENT

4.1   Curriculum

Integrating the New York State standards into our curriculum through the use of technology is an on-going process to be addressed through staff development.

4.2   Staff Development

Without assistance to teachers, the promise of technology in improving the performance levels of our students will not be realized. Teachers need help in learning how to integrate new technologies into their instruction and into the learning processes of their students.

Research indicates technology planning that does not address comprehensive and continuous professional development will likely have minimal success. Technology training for teachers and staff must be ongoing. Staff development programs must be designed to accommodate the rapidly changing nature of the technological world and the wide diversity in the learning needs of the adults who serve the district. Training efforts must help the Andover staff accommodate new knowledge by moving beyond the personal knowledge required of increasing educators' technical literacy to developing the capacity of using technology to think differently about instruction.

Social interaction is the foundation of a quality staff development program. Learning is a social activity before a cognitive one. The structure of teacher training programs must assure that teachers receive continual support and assistance from their colleagues. The age-old apprentice model of learning can be applied to adult technology training as teachers and staff receive side by side demonstrations and learning facilitation from staff members with proficient technology skills. Quality staff development opportunities will move teachers from awareness to knowledge to control as they first observe colleagues demonstrating the use of technology and then engage in both guide and independent practice.

Multiple levels of training and staff development must be offered teachers and administrators so they feel empowered to use technology to facilitate their own productivity. This should include

-    effective integration of technology to facilitate exploratory learning, cooperative learning, and classroom-based assessment
-    video streaming
-    telecommunications
-    informational sessions and workshops

Professional development programs prepare the teaching staff to effectively deliver integration of content objectives, process skills, and technology competencies appropriate to the grade level, subject area, and/or course in which students are engaged. Successful integration will require more specific definition of those elements to be integrated. Curriculum in most areas will need upgrading to identify the basic information, performance standards, and technology linkages that assure that Andover students will be prepared to navigate in an ever changing world.

4.2. a <u>Staff Development Resources for the Support of Technology</u>

Some resources, services, and printed manuals such as PowerSchool User Guides, Lotus Notes User guides and various other software guides targeted at specific faculty users. Other materials will be made available to ensure successful and effective use of technologies are: access to free educational resources on the global Internet; administrative applications and tools such as attendance, electronic gradebooks, and student information display software, multimedia authoring, CAD/CAM, and a district-wide electronic mail (E-mail) system.

In order to ensure that current Staff learn how to use new technologies teachers will be required to complete various areas of training. These trainings will provide the teachers with continual education opportunities in the use of technology and will allow them to improve student achievement through the use of technology. Trainings will be provided on a monthly and daily basis with success measured by student and teacher use of technology.

Teacher staff development training in technology will be facilitated by the district or through the Instructional Support Service provided through the Cattaraugus-Allegany BOCES. Staff development trainers from the BOCES will offer a diverse menu of training options. Collaborative networks for teacher training purposes will also be pursued with the Allegany Cattaraugus Teachers' Center and the State University of New York in Alfred.

Surveys and other data gathering instruments will be used to sample our teachers to determine the changing learning needs of our staff. In-house staff development and the use of teacher training teams and mentors will provide the backbone of our staff development efforts. Opportunities for individuals to learn discipline or content specific skills and classroom applications will also be provided.

Andover teacher training will focus on student acquisition of technological competencies. Teachers will use their expanding knowledge to assist students in the use of information technology to gather, manipulate, and present information. Students will acquire technological competencies in both the laboratory and regular classroom settings.

The final phase of staff development is more personal and discipline specific. Teachers will be provided with individual opportunities to improve instruction in their content using unique and challenging technology applications. Teachers will sometimes work regionally during this phase in order to provide shared experiences from multiple perspectives required of transforming information and skills into applicable competencies which translates into meaning and purpose in their discipline.

The district has also secured software through funds that include software such as Inspiration. The District will continue to research Title 1 and 2 funds as well as other Federal and State Grants and BOCES Professional Development Courses in an effort to increase access to technology for our staff and students.

Some of the topics currently available for teacher training follow:

I-Ready
Study Island
Castle Learning
I-pads
Graphic Organizers and Technology
Instructional Technology Partners
Technology Integrator Forum
Google for Educators
Peripherals
Learning Through Virtual Communication
Creating Tech-Infused Lessons
Powerpoint, Publisher, Producer
Instructional Strategies with Technology
CSLO
Math/Science Software
BOCES Conferences & Workshops

4.3   Technology Support Staff

The school district maintains service contracts to support technology use from technology hardware and software vendors. Several purchase contracts include ongoing services for user support. Contracted services are used for building wiring, network installation, network maintenance, Internet service, and software maintenance. The district also employs a full-time technical support person.

5.0   CURRENT STATUS

5.1   Description of Technologies

Building wiring, hardware, and software standards have been established through the Andover Central School Technology Plan to assure the interoperability of technology components. The building wiring design assures connectivity and interoperability of technology components. These standards are updated periodically as needed by the District Technology Committee. Standards require expandability and upgrade paths to accommodate future applications. Current workstation standards reflect current industry standards and the anticipated demands of software to be used by administrators, teachers, students, and staff. Other technology devices reflected in the Technology Plan include:

- Wireless Access Points
- Broadband Internet Connection
- laser printers
- I-Pads
- network hubs/switches
- file servers
- DVD players
- Laptop Carts in most classrooms
- Presentation devices
- Network computers
- Distance Learning Lab

Building wiring plans specify network nodes in almost all classrooms and work areas of our school. Wiring layouts and wiring closets provide flexibility for modification of usage in a given room. All classrooms are equipped with at least six network nodes. Our laboratory and library are equipped with multiple network nodes depending on anticipated needs.

6.0   **Andover Central School Technology Goals:**

- Enhance programs to improve student literacy in the use of new technologies.
- Upgrade technologies in the production of the stem classroom.

- Provide USB Microscopes to the Science Classrooms.

- Implement a robotics program to facilitate cross curriculum projects in the Production Technology Program.

- Computer upgrades and Upgrades of the Server room and switch rooms.

- Provide a process for maintaining and supporting technology within the District. Improve and expand wireless network.

- Improve student achievement through the use of technology.
- Provide continual education opportunities for teachers in the use of technology.
- Provide parents and the community with technology skills and resources to support student success.
- Continue exploration of upgrading hardware and software in technological innovation.
- Offer Distance Learning course to the general public.

7.0   PLAN MONITORING, EVALUATION AND REVISION

The Andover Central School Technology committee has assumed the responsibility for the monitoring and evaluation of the technology plan. Each new technology initiative is monitored carefully during the early stages of implementation so that district staff can make any adjustments to the program necessary to ensure its success. This will be done Semi- annually. The implementation of the technology plan is monitored and evaluated using the following strategies:

- The initiatives in the yearly action plans have measurable or demonstrable outcomes for monitoring and evaluating purposes. The evaluative component includes the identification of how monitoring will take place, who will be responsible for the monitoring of each initiative, and when the evaluation of progress will take place.

- The Technology Committee evaluates the planning process on a Semi-annual basis to determine how the planning efforts have addressed the research-based critical factors for successful implementation of the technology plan. The Technology Committee is comprised of the Building Principal, Technology Coordinator, Technical Support personnel, Building Maintenance Supervisor, Board Of Education Members, teachers and parents.

- Administrators evaluate the impact of the technology initiatives on student and staff technology skills, knowledge, attitudes, and access annually.

- The Technology Committee will evaluate the goals within the technology plan. If goals are not met adjustments and updates will be made by the Technology Coordinator.

8.0 Action Plan		
Goal 1: Enhance programs to improve student literacy in the use of new technologies.		
Actions needed to achieve goal	People Responsible	Indication of Success
Education and research into hardware and software programs.	Curriculum Director, Technology Coordinator and Classroom Teachers	Assessment of student progress in the use of classroom technology by consulting with Classroom Teachers.
Goal 2: Upgrade technologies in the production of the stem classroom.		
Actions needed to achieve goal	People Responsible	Indication of Success
Renovations/Purchases	Administration	Building Room/purchasing stem hardware
State Education Approval	NA	State Education Approval
Goal 3: Computer upgrades and upgrades of the server room and switch rooms.		
Actions needed to achieve goal	People Responsible	Indication of Success
Budgeting and Smart School Funding	Administrators	Budget and Smart Schools Planning
Smart Schools Plan Funding	Technology Coordinator	Completed Plans
Goal 4: Provide a process for maintaining and supporting technology within the District. Improve and expand wireless network.		
Actions needed to achieve goal	People Responsible	Indication of Success
Employment of Computer technicians	Administration	Employed Staff
Coordination and support of Boces Wide Area Network Technicians	Technology Coordinator	Installed Hardware
Teacher Training	Technology Coordinator	Technology Integration

Goal 5: Improve student achievement through the use of technology.		
Actions needed to achieve goal	People Responsible	Indication of Success
Provide students with technology	Technology Coordinator	Teacher and Student acquisition of technology
Assessment of student achievement	Curriculum Director	Teacher and Student Use
Utilization of Equipment	Technology Coordinator	Teacher and Student Use
Student use of Technology for research	Technology Coordinator	Projects, Papers, Homework, Classwork, Student use of Technology
Goal 6: Implement a robotics program to facilitate cross curriculum projects in the Production Technology Program.		
Actions needed to achieve goal	People Responsible	Indication of Success
Informational Sessions and Training	Technology Coordinator	Staff proficient in the use of Robotics technology
Acquisition of Robotics hardware and software	Technology Coordinator	Hardware and Software available within the District
Organization of student robotics clubs or classes	Administration	Robotics clubs or classes formed
Goal 7: Provide continual education opportunities for teachers in the use of technology.		
Actions needed to achieve goal	People Responsible	Indication of Success
Professional Development	Curriculum Director/Technology Coordinator	Professional Development classes completed

Goal 8: Continue exploration of upgrading hardware and software in technological innovation.		
Actions needed to achieve goal	People Responsible	Indication of Success
Attending workshops and Technology meetings within the State and Boces Region	Administration and Teachers	Committee meetings to discuss new technology

ANDOVER CENTRAL SCHOOL
(As taken from NYS Standards for Teachers)

I.   *Students will access, generate, process and transfer information using appropriate technologies.*
   A.   **Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning.**
        1.   Students know different types of software used to create audio, video, graphic, and text-based presentations (e.g., desktop publishing software, word processing software).
        2.   Students know the common features and uses of spreadsheets (e.g., data is entered in cells identified by row and column; formulas can be used to update solutions automatically; spreadsheets are used in print form, such as look-up tables, and electronic form, such as to track business profits and losses.
        3.   Students will use Boolean searches to execute complex searches in a database.
        4.   Students will use a spreadsheet to update, add, and delete data, and to write and execute valid information on data.
        5.   Students will gather information from on-line telecommunication services.
        6.   Students will use a variety of sources to gather information for a specific topic (e.g., local and national media, libraries, museums, government agencies, industries, and individuals)
        7.   Students will collect data from a variety of instruments used to measure events and phenomena (e.g., probes, such as weather stations).
        8.   Students will use simple modeling programs to make predictions and provide solutions.

   B.   **Knowledge of the impacts and limitations of information systems is essential to its effective and ethical use.**
        1.   Students will know that incorrect data entry may affect the accuracy of information displayed on the computer.
        2.   Students will know advantages and disadvantages of data-handling programs and graphics programs.
        3.   Students will understand why electronically-stored personal information has greater potential for misuse than records kept in conventional form (e.g., computer hacking, computer piracy, intentional virus setting).

   C.   **Information technology can have positive and negative impacts on society, depending upon how it is used.**
        1.   Students will use graphical and statistical software in presentations (e.g., desktop publishing software, database software).
        2.   Students will know the common features and uses of desktop publishing software (e.g., documents are created, signed, and formatted for

publication; data, graphics, and scanned images can be imported into a document using desktop software).

3. Students will know ways in which information technology is used in mathematics and science to address needs and problems in society.

4. Students will know that science cannot answer all questions and technology cannot solve all human problems or meet all human needs.

5. Students will understand how the use and abuse of electronically generated information affects individuals and families.

II. Technology

Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.

A. Engineering design is an iterative process involving modeling and optimization used to develop technological solutions to problems within given constraints.

1. Students will determine a question or topic to investigate (e.g., thermal expansion of a bridge); identify the math that will be used (e.g., measurement, data analysis); make a prediction or hypothesis; develop and carry out procedures to test the hypothesis; compare results with the prediction or hypothesis; and generate a final report (e.g., including comparison of results with predictions, recommendations, visual displays of data).

2. Students will identify needs and opportunities for technological invention or innovation.

3. Students will identify, locate, and use a wide range of information resources including subject experts, library references, magazines, videotapes, films, electronic databases and on-line services.

4. Students will discuss and document (e.g., through notes and sketches) how findings relate to the problem.

5. Students will generate creative solution ideas, break ideas into the significant functional elements, and determine possible refinements.

6. Students will predict possible outcomes using mathematical and functional modeling techniques.

7. Students will choose the optimal solution to the problem, clearly documenting ideas against design criteria and constraints.

8. Students will explain how human values, economics, ergonomics, and environmental considerations influence the solution to a problem.

9. Students will develop work schedules and plans which include optimal use and cost of materials, processes, time, and expertise.

10. Students will construct a model of the solution, incorporating developmental modifications while working to a high degree of quality (craftsmanship).

11. Students will in a group setting, devise a test of the solution relative to the design criteria and perform the test.

12. Students will prepare reports detailing an evaluation of performance test results, using a variety of creative verbal and graphic techniques effectively and persuasively to present conclusions, predict impacts and new problems, and suggest and pursue modifications.

B. **Technological tools, materials, and other resources should be selected on the basis of safety, cost, availability, appropriateness, and environmental impact; technological processes change energy, information, and material resources into more useful forms.**
1. Students will know the attributes of a variety of materials, information, and energy resources (e.g., synthetic and composite materials)
2. Students will use appropriate tools, instruments, and equipment to process materials, energy, and information for specific purposes (e.g., instruments used to test voltage and continuity when repairing household appliances)
3. Students will know why making tradeoffs among certain characteristics (e.g., safety, cost, properties, availability, ease of processing, disposability) is necessary in the selection of systems for specific purposes.
4. Students will model methods of control system processes and monitor system outputs (e.g., computer-based methods such as Capsela or Lego)
5. Students will construct and operate systems, controlling and optimizing outputs, organizing and adjusting subsystems.

C. **Computers, as tools for design, modeling, information processing, communication, and system control, have greatly increased human productivity and knowledge.**
1. Students will understand basic computer architecture and the function of computer subsystems (e.g., floppy drive, video and sound cards, modem, printer, monitor)
2. Students will know of significant advances in computers and peripherals (e.g., data scanners, digital cameras).
3. Students know the process involved in selecting a computer system that meets personal needs (e.g., price the system, justify the choices of cpu (central processing unit), amount of RAM, and other components).
4. Students will attach a modem to a computer system and telephone line.
5. Students will install and use communications software.
6. Students will connect to various on-line networks (e.g., the Internet).
7. Students will access information using a variety of electronic communication systems (e.g., e-mail, telnet, gopher, ftp, and web searches).
8. Students will use computer-aided drawing and design (CADD) software to model realistic solutions to design problems (e.g., design and draw a model of one room).
9. Students will understand the elements of computer programming and program writing.

D. **Technological systems are designed to achieve specific results and produce outputs such as products, structures, services, energy, or other systems.**
1. Students will know why it is necessary to make tradeoffs among various characteristics (e.g., safety, function, cost, ease of operation, quality of post-purchase support, environmental impact).

2. Students will understand the performance of a feedback control system (e.g., the float mechanism of a toilet).
3. Students will understand that complex technological systems involve the confluence of numerous other systems (e.g., the communication, transportation, biotechnical, and manufacturing systems involved in the space shuttle).
4. Students will know that a system has some properties that are different from those of its parts, but appear because of the interaction of those parts.
5. Students will know that even in simple systems, accurate prediction of the effect of changing some part of the system is not always possible.
6. Students will know that complex systems are subject to failure and are designed with various elements and procedures (e.g., performance testing, over design, redundancy, more controls) that help reduce system failure.

E. **Technology has been the driving force in the evolution of society from an agricultural to an industrial to an information base.**
1. Students will understand ways in which technological inventions and innovations have influenced society (e.g., caused global growth and interdependence, stimulated economic competitiveness, created new jobs, made other jobs obsolete).

F. **Technology can have positive impacts on individuals, society, and the environment and humans have the capability and responsibility to constrain or promote technological development.**
1. Students will know that although technological effects are complex and difficult to predict accurately, humans can control the development and implementation of technology.
2. Students will know ways in which computers and automation have changed the nature of work.
3. Students will understand ways in which national security depends upon both military and nonmilitary applications of technology.

G. **Project management is essential to ensuring that technological endeavors are profitable and that products and systems are of high quality and built safely, on schedule, and within budget.**
1. Students will use various computer-based scheduling and project tracking tools (e.g., flow charts and graphs)
2. Students will understand how statistical process control assures high quality output.
3. Students will understand the role of technology in the operation of successful U.S. businesses.
4. Students will know ways in which technological inventions and innovations stimulate economic competitiveness.
5. Students will know that in order for an innovation to be commercially successful, it must be translated into products and services with marketplace demand.

6.   Students will know new management techniques and how they have reduced the length of design-to-manufacture cycles, resulted in more flexible factories, and improved quality and customer satisfaction (e.g., computer-aided engineering, computer-integrated manufacturing, and total quality management).

7.   Students will understand the elements of effective management.

The following is a listing of the New York Learning Standards. Those standards provide the foundation of the academic program at Andover Central School.

A.   Standards for Arts Education

Standard 1: Creating, Performing, and Participating in the Arts
Students will actively engage in the processes that constitute creation and performance in the arts (music, dance, theater, and visual arts) and participate in various roles in the arts.

Standard 2: Knowing and Using Arts Materials and Resources
Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.

Standard 3: Responding to an Analyzing Works of Art
Students will respond critically to a variety of works in the arts, connecting the individual work to other works and to other aspects of human endeavor and thought.

Standard 4: Understanding the Cultural Dimensions and Contributions of the Arts
Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of past and present society.

B.   Standards for Language Arts

Standard 1:   Language for Information and Understanding
Students will read, write, listen, and speak for information and understanding. As listeners and readers, students will collect data, facts, and use ideas; discover relationships, concepts, and generalizations; use knowledge generated from oral, written, and electronically produced texts. As speakers and writers, they will use oral and written language to acquire, interpret, apply, and transmit information.

Standard 2: Language for Literacy Response and Expression
Students will read, write, listen, and speak for literary response and expression. Students will read and listen to oral, written, and electronically produced texts and performances, relate texts and performances to their own lives, and develop an understanding of diverse social, historical, and cultural dimensions the texts and performances represent. As speakers and writers, students will use oral and written language for self-expression and artistic creation.

Standard 3: Language for Critical Analysis and Evaluation

Students will read, write, listen, and speak for critical analysis and evaluation. As listeners and readers, students will analyze experiences, ideas, information, and issues presented by others using a variety of established criteria. As speakers and writers, they will present, in oral and written language and from a variety of perspectives, their opinions and judgments on experiences, ideas, information, and issues.

Standard 4: Language for Social Interaction
Students will read, write, listen, and speak for social interaction. Students will use oral and written language for effective social communication with a wide variety of people. As readers and listeners, they will use the social communications of others to enrich their understanding of people and their views.

C.   Standard for Mathematics, Science, and Technology

Standard 1: Analysis, Inquiry, and Design
Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

Standard 2: Information Systems
Students will access, generate, process, and transfer information using appropriate technologies.

Standard 3: Mathematics
Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry.

Standard 4: Science
Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Standard 5: Technology
Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.

Standard 6: Interconnectedness: Common Themes
Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

Standard 7: Interdisciplinary Problem-Solving
Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions.

Standard for Career Development and Occupational Studies

Standard 1:   Career development students will be knowledgeable about the worlds of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.

Standard 2:   Integrated learning students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.

Standard 3:   Universal Foundation Skills
Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.

Standard 4:   Career Major
Students who choose a career major will acquire the career-specific technical knowledge/skills necessary to progress toward gainful employment, career advancement, and success in postsecondary programs.

Standard for Languages Other Than English

Standard 1:   Communication Skills
Students will be able to use a language other than English for communication.

Standard 2:   Cultural Understanding
Students will develop cross-cultural skills and understandings.

Standards for Health, Home Economics, and Physical Education

Standard 1:   Personal Health and Fitness
Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.

Standard 2:   A Safe and Healthy Environment
Students will acquire the knowledge and ability necessary to create and maintain a a safe and healthy environment.

Standard 3:   Resource Management
Students will understand an be able to manage their personal and community resources.

Standards for Social Studies

Standard 1:   History of the United States and New York
Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Standard 2:   World History
Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the world history and examine the broad sweep of history form a variety of perspectives.

Standard 3:   Geography
Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the independent world in which we live – local, national, and global – including the distribution of people, places, and environments over the Earth's surface.

Standard 4:   Economy
Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institution to allocate scarce resources, how major decision-making units functions in the U.S. and other national economies, and how an economy solves the scarcity problem through market and non-market mechanisms.

Standard 5:   Civics, Citizenship, and Government
Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the U.S. and other nations; the U.S. Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.

Technology Competencies

Basic Technology Competencies that support and enhance professional productivity, information access/ collaboration, and communication among educators.

Computer Operations

Demonstrate these skills:

1. Start up and shut down computer system and peripherals
   o Use correct startup/shut down procedure according to computer type
   o Start up and shut down printer
   o Start up and shut down CD-ROM
   o Start up and shut down scanner
2. Identify and use icons, windows, menus
   o Point, click, double-click, click and drag with mouse
   o Maximize and minimize a window
   o Use pull-down and expanded pull-down menus
   o Select, open, and move an icon
   o Select, open, move, and close a window
   o Resize a window and title/stack windows
   o Scroll up/down, left/right within a window
   o Make a window active/inactive
3. Start an application and create a document
4. Name, save, retrieve, revise a document
   o Name a document
   o Save a document using both the Save and Save As Commands
   o Retrieve a document from floppy disk
   o Retrieve a document from hard drive
   o Rename a document
   o Edit and re-save a document
5. Use printing option
6. Insert and eject floppy disk and CD-ROM
7. Initialize, name/rename floppy and hard disks
8. Copy document from hard disk to floppy disk and vice versa
9. Create and name/rename subdirectories/folders
10. Save, open, place documents inside subdirectories/folders
11. Open and work with more than one application at a time
12. Use special operating system features for people with disabilities

Demonstrate knowledge through practical application:

13. Terms such as <u>graphical user interface</u>, document, application, K (kilobyte), hierarchical file system, directory, <u>operating system</u>, system software, <u>RAM</u>, storage capacity of <u>floppy disks</u>, <u>hard disks</u>, and <u>CD-ROMs</u>
14. Similarities/differences and advantages/disadvantages of various operating systems
    Demonstrate these skills: (expanded)
15. Make more <u>memory</u> available
16. Install/reinstall and update system software and printer <u>drivers</u>
    o Install/reinstall and update system software
    o Install/reinstall and update printer drivers
17. Exchange disks and files among Macintosh, MS-DOS/Windows, and Apple II computers

2. Setup Maintenance, and Troubleshooting

<u>Demonstrate these skills:</u>

1. <u>Set up computer system and connect peripheral devices</u>
    o Setup computer system (i.e., CPU, monitor, keyboard, mouse, external drive)
    o Connect peripheral devices (i.e., printers, CD-ROM, external drives, modem, scanner) Clean computer components and printer
2. <u>Make backup copies of key applications and documents</u>
3. Use self-help resources to diagnose and correct common hardware/printing problems
4. Install and upgrade an application

    Demonstrate knowledge through practical application:

5. Proper operating environment for computer and peripherals
6. Protection against computer <u>viruses</u>

3. Word Processing/Introductory Desktop Publishing

Demonstrate these skills:
1. Enter and edit text and copy and move a block of text
        Use the following functions:
    o Clipboard (a special location in the computer's memory that temporarily holds information)
    o Cut (a function that duplicates highlighted information and places a copy on the clipboard)
    o Copy (a function that duplicates highlighted information and places a copy on the clipboard)
    o Paste (a function that copies information from the clipboard to a document)
    o Delete text (using the mouse, place the I-beam cursor at the location where the new text is to be placed, click the mouse button and begin typing the new text)
    o Insert text (using the mouse, place the I-beam cursor at the location where the new text is to be placed, click the mouse button, and begin typing the new text)
2. Copy and move clocks of text
3. Change text format and style, set margins, line spacing, tabs
        Use the following functions:
    o Sizing font, (change actual size of text)

- o Style (choose type and special effects such as bold, italics, underline)
- o Margins (amount of white space on the top, bottom, left and right edges of page)
- o Set margins (to change defaults, already set margins, by using margins)
- o Line spacing (amount of space between lines in a paragraph such as single space, space and half, and double space)
- o Tab stops (align/justify to left, right, center, decimal tab)
- o Tabs (used to position text within a line or to create tables of data)
4. Check spelling, grammar, word usage
   Use the following word processing utilities:
   - o Spell check
   - o Thesaurus
   - o Dictionary, outliner, grammar check as applicable
5. Create a header or footer
6. Insert date, time, page number
7. Add columns to document
8. Insert clip art into document

   Demonstrate Knowledge through practical application
9. Terms such as cursor, format, font, style, header, footer, spelling checker

4. Spreadsheet/Graphing

Demonstrate these skills:
1. Interpret and communicate information in an existing spreadsheet
   - o Understand the concept of a spreadsheet and relate a print spreadsheet to an electronic spreadsheet
   - o Understand the possibilities of spreadsheet calculations
   - o Given a print spreadsheet and an electronic spreadsheet, interpret and communicate information from each
2. Enter data in an existing spreadsheet
   - o Given a spreadsheet template, enter data in a cell(s)
   - o Use the entry bar for data entry and editing
   - o Print a spreadsheet (with no text formatting, etc.)
   - o Manipulate data within an existing spreadsheet in order to solve a problem
3. Create a spreadsheet with rows, columns, headings
4. Create/copy formulas and functions to perform calculations
   - o Understand the three basic types of cells (label, value, and formula)
     - o Format a cell or range of cells for the following: currency, date, time, percentage, fixed decimal
     - o Protect a cell or range of cells
     - o Create spreadsheet with labels and values
     - o Create a formula using a formula indicator symbol, cell references, and operations symbols (+-*/)
     - o Understand order of operations as it relates to writing a spreadsheet formula (PEMDAS)
   - o Create a formula using functions (SUM and AVERAGE) and a range of cells

- o Be aware of other functions available
- o Be aware of look up tables and their use
- o Copy values using fill down and fill across
  - o Be aware of relative and absolute value as it relates to copying formulas
- o Change the appearance of a spreadsheet by inserting columns and rows
  - o Change the appearance of a spreadsheet using column width and row height
  - o Change the appearance of a spreadsheet using gridlines, headers, and footers
  - o Change the appearance of a spreadsheet using text features for label cells
  - o Change the appearance of a spreadsheet using hiding and freezing/splitting
5. Create a graph from spreadsheet data
   - o Know the three basic types of graphs (bar, pie, line) and their uses
   - o Using a previously created graph, select a range of data and choose the appropriate graph
   - o Change a refine a graph's appearance to include headers, legend, labels, series, axes, color, etc.)
   - o Print a refined graph
6. Insert spreadsheet into word processing document
   - o Open a word processing document and insert an existing spreadsheet into the document
   - o Print a word processing document with an inserted spreadsheet
   - o Insert a pre-existing graph into a word processing document
   - o Insert headers and footers

Demonstrate knowledge through practical application

7. Terms such as spreadsheet, cell, data entry bar, formula, function

5. Database

Demonstrate these skills

1. Use information from an existing database
   - o Describe the difference between a print database and a computer database
   - o Use a prepared database to enter data
   - o Add a record to an existing database
   - o Delete a record from an existing database
   - o Search a database for specific information
2. Sort a database by specific fields, add and delete records
   - o Use a database to sort records
   - o Use a database to search for desired information given 1 criterion
   - o Use a database to search for desired information given 2 criteria (using "and", "or", or "not" connectors)
   - o Use sorting and searching techniques to solve a specific problem
3. Create database with multiple fields and records
   - o Create database with multiple fields
   - o Create a database with multiple fields and varying field sizes
   - o Create a database with multiple records
4. Create custom layouts including columnar reports

- Create a database layout/report utilizing various word processing skills (including fonts, size, style, alignment, and borders)
- Create a database layout/report with headers and footers
- Create a database layout to match an existing form
- Create a database report with calculated summaries
- Print a database
  - Print individual records and/or forms
  - Print a database list/multiple records
  - Print a customized database report

5. Insert database fields into word processing document

Demonstrate knowledge through practical application:

6. Terms such as database, field, record, layout, sort/arrange, search/select/filter, mail merge

6. Networking

Demonstrate these skills:

1. Use a file server (connect/log on, retrieve a program or document, save a document to a specified location)
   - Connect/log on
   - Retrieve a program or document
   - Save a document to a specified location
   - Disconnect/log off
2. Share files with other on a network

Demonstrate knowledge through practical application:
3. Terms such as local area network, wide area network, access rights, security password, file server, zone

Demonstrate these skills:

4. Select/deselect a network zone

7. Telecommunications

Demonstrate these skills (essential):

1. Connect to the Internet or an on-line service
   - Check physical connections before attempting log on - Check that all tele-computing hardware is turned on and check cable connections
   - Locate and use connection software (configuration & client)
   - Connect to Internet via an Internet Service Provider (ISP) with a user ID an d password
   - Be aware of commercial providers and their services
2. Use electronic mail (compose, send, retrieve, and read, respond)

- o Compare the process of sending and receiving messages electronically vs. non-electronically
- o Compose new e-mail (address and subject; explanation of address domains)
- o Send e-mail (concepts of carbon copy (cc) and blind carbon copy (bcc))
- o Retrieve and read e-mail
- o Reply to sender and forward e-mail
- o Save, print, and delete e-mail

3. Access and use resources on Internet and World Wide Web
    - o Identify computers as tools for accessing current information (concept of Internet as a large network and database)
    - o Use a browser software (concepts: hypertext, html, homepage)
    - o Access a specific web site by entering the appropriate URL (concept of URL, http, web site)
    - o Find a search engine site and perform a specific web search (list of search engines and purposes)
    - o Knowledge and use of filters (software driven, server based, search engine inclusive)

Demonstrate knowledge through practical application:
4. Terms such as telecommunications, direct access, dial-in access, modem, baud rate, Internet, World Wide Web
    - o Identify tele-computing terms (i.e., telecommunication, direct access, dial-in access, modem, baud rate, Internet, World Wide Web, telnet)
5. Obtain/maintain an account on the Internet or an on-line service that provides Internet access
    - o Knowledge of local accounts and access
    - o Knowledge of commercial accounts and access
6. Online conferences relevant to professional information needs
    - o Be aware of on-line conference relevant to professional information
7. Use of telnet to connect to a remote computer on the Internet
    - o Connect to county or university library

Demonstrate these skills (expanded):
8. Connect a computer to a modem and telephone line for dial
9. Install and configure telecommunications software
10. Upload a text file and send as electronic mail
11. Use specialized e-mail lists relevant to professional information needs
12. Create and use group addresses for electronic mail
13. Read, save, print, reply to, forward electronic mail
14. Use Gopher to browse resources on the Internet
15. Use ftp to send or retrieve files from remote computers
16. Use effectively: distance learning, desktop video conferencing and tele-teaching technologies

8. Media Communications (including Image and Audio Processing)

Demonstrate these skills:

1. Produce print-based products (e.g., newsletters, brochures, posters, books)
   o Layout
      o Specify multiple-columns – Set up horizontal & vertical guides – Use column guides & rulers (position zero, lock/unlock guides, reposition rulers, equal/unequal columns) – Create Master Page (display and hide elements)
   o Text – Create, place, format, & position text (create drop caps, apply shading, rotating text, auto flow/reflow text, manual flow text, auto page number, custom text wrap) – Rotate text – Create banner text – Create Table of Contents, Index – Create & apply styles – Format tabs & indents
   o Graphics – Resize and position objects, proportionally scale objects – Create, place, format, & position graphics elements (draw and position objects, group, ungroup objects, shade, color)
2. Produce electronic slides/overheads
   o Ensure good design features
   o Select template
   o Outline presentation – Create basic outline – Use Tools to modify/rearrange
   o Slides – Define/edit color scheme – Position & format text – Insert graphics, sound, and/or video – Organize slides for slide show – Insert appropriate transitions – Run and/or edit slide show
3. Set up and operate a videocassette recorder/player and monitor/TV
4. Connect a video output device (e.g., LCD panel) to computer or large screen display

   Demonstrate knowledge through practical application:
5. Terms such as painting tool, drawing tool, compression
6. Role of media in effective communication
7. Characteristics, strengths, and weaknesses of different media
8. Consumer issues, including identification/evaluation of available media communication resources

   Demonstrate these skills: (expanded):
9. Use painting and drawing tools
10. Use digital camera and scanner
11. Use camcorder and edit video from a camcorder
12. Produce a video
13. Set up and operate a videodisk player and TV receiver or monitor

9. Multimedia Integration

Demonstrate these skills:

1. Use a linear multimedia presentation
2. Use a non-linear hypermedia presentation

   Demonstrate knowledge through practical application:
3. Terms such as media, multimedia, hypermedia, clip media

   Demonstrate these skills: (expanded):
4. Plan/produce a linear multimedia presentation

5. Plan/produce a non-linear, hypermedia presentation
6. Use a file compression utility
7. Input and digitize sound from microphone and audio cassette player/recorder
8. Create simple animations

II. Advanced Technology Competencies that enable educators to use multiple forms of technology to

enhance learning in their classrooms

10. Curriculum

Demonstrate these skills:

1. Use the Computer Skills Curriculum to identify what students should know and be able to do
   o List the appropriate Computer Skills Curriculum Strands and indicators for your appropriate grade level and/or subject area
2. Use school television resources that support the curriculum
   o List school television resources and their correlation to your appropriate grade level curriculum and computer skills competencies
   o Develop lesson plans utilizing school television resources
   o Develop materials for better implementation of lesson plans (worksheets, graphic organizers, activities)
   o Develop an assessment tool to evaluate student learning via school television resources
3. Access resources for planning instruction available via telecommunications (e.g., experts, lesson plans, authentic data, curriculum materials)
   o Develop a listing of URLs that correlate to your appropriate grade level curriculum and computer skills competencies
   o Compile and organize telecommunication resources into a usable off-line format
   o Correlate telecommunication resources to your Standard Course of Study instructional objective
   o Utilize intranet software for local area network use of web resources

Demonstrate knowledge through practical application:
4. Computer Skills Curriculum Goals
   o Develop lesson plans to correlate computer skills with other curricular objectives
   o Collect and organize available computer skills resources: DPI lesson plans, 7-11 SLIP, data files, vocabulary lists, district-developed materials, commercial products
   o Incorporate computer skills lesson plans into classroom instruction (demonstration by videotape, principal observation, student work/portfolios, peer observation)
   o Make computer skill resources available to others by distributing resources, be demonstrating skills through creation of files and additional handouts, and by discussion at staff meetings or planning sessions.
5. Computer Skills Assessment

- o Utilize available released items (knowledge and performance) as assessment for computer skills for your appropriate grade level/subject
- o Incorporate available test items into assessment of other instructional objectives (language arts, math, social studies, science, etc.)
- o Develop additional test items for assessment of computer skills
- o Develop test items involving computer skills for assessment of other instructional objectives

Demonstrate these skills: (expanded)

6. Locate, evaluate, and select appropriate teaching/learning resources and curriculum materials for the content area and target audience, including computer-based products, videotapes and discs, local experts, primary documents and artifacts, texts, reference books, literature, and other print sources.
   - o Develop a computer software listing for an appropriate grade/subject area
   - o Develop a videodisc listing for an appropriate grade/subject area
   - o Develop a videotape listing for an appropriate grade/subject area
   - o Develop a community resource file/notebook for your school or grade level
   - o Develop a print media (texts, reference books, literature, etc.) listing for an appropriate grade/subject area

11. Subject-Specific Knowledge

Demonstrate these skills:

1. Use technology in the discipline/subject for learning and as a medium for communication processing, database and spreadsheet activities, and for Internet access
   - o Facilitate students use of technology hardware/software to introduce and reinforce content topics
   - o Design and deliver lessons using technology resources on a selected discipline/subject
   - o Design and deliver a classroom activity using telecommunication
   - o Design and deliver a lesson using presentation software (e.g., HyperStudio, PowerPoint, etc.)
2. Use media and technology to present the subject so that it is comprehensible to others
   - o Use a variety of technologies in presenting curriculum information to students (e.g., computer and LCD or data projector, visualizer, VCR or videodisc with monitor, overhead calculators, digital camera, video microscope)
   - o Design a multimedia project to present curriculum information
3. Use technology-based tools that are specific to the discipline
   - o Use content-specific technology tools such as: probeware, midi devices, graphics tablet, graphing calculators, music, data plotters, video microscopes, CAD/CAM systems

4. Use technology to facilitate teaching strategies specific to the discipline
   - o Utilize computers in gathering, organizing, and presenting information through cooperative learning groups
   - o Use Internet resources to construct classroom simulation
   - o Use media communication technologies in classroom presentation

12. Design and Management of Learning Environments/Resources

Demonstrate these skills:

1. Develop performance tasks that require students to (a) locate and analyze information as well as draw conclusions and (b) use a variety of media to communicate results clearly
   - o (a) Utilize resources (e.g., databases; CD encyclopedias, atlases, dictionaries; spreadsheets; Internet; videodiscs) for classroom instruction and/or staff development
   - o (b) Develop portfolios illustrating student and/or teacher instructional demonstration or utilization of technologies such as: videodiscs, VCR, computer generated graphs, multimedia programs/presentations
   - o (b) Deliver electronic presentation (class/individual projects)
   - o (b) Use technology in presentation to civic/community organizations/colleagues
   - o (b) Participate in staff development on desktop publishing
   - o Discuss network security and Acceptable Use Policy
   - o Use Computer Skills Curriculum – Ethical Issues Lesson Plans
   - o Role play situations that involve illegal copying of software with a discussion to follow
   - o Discuss personal property and personal responsibility
   - o List examples of ethical and unethical issues; use videos such as Don't Copy That Floppy and its lesson plans (Order from the Software Publishers Association, 1-800-388-7478)

APPENDIX B

Acceptable Use Policy & Filtering Policy

ANDOVER CENTRAL SCHOOL
TECHNOLOGY
ACCEPTABLE USE POLICY
HIGHSCHOOL

As Andover Central School gains access to new technological resources, we also assume new responsibilities. Our goal is to provide access to diverse technology, to support learning and enhance instruction, and to do so in a manner that is both ethical and consistent with promoting educational excellence.

I.   Purpose of Acceptable Use Policy

This Acceptable Use Policy establishes a set of guidelines for students, teachers, administrators, and all other users of the Andover Central School computer networks and technological equipment. It is designed to reinforce honesty, integrity, respect for the rights of others, and respect for the law. Violations of the Acceptable Use Policy will result in loss of access, as well as other disciplinary or legal actions, if applicable.

II.   Terms and Conditions

Andover Central School is now providing access to various computerized information resources through the use of the district's computer system. This may include access to electronic mail, on-line services, and the Internet. Although our school's Internet service is filtered, it is impossible to screen or review all of the available materials. Use of this system is conditioned upon written agreements by both the user and parent/guardian that uses of our system will conform to the requirements of this policy.

It should be noted that use of the ACS computer equipment, Internet accounts, and networks and information is a privilege, not a right. As such, these privileges can be restricted, denied, revoked, or suspended.

All data files stored on district equipment, like school lockers, remain the property of the school district and are subject to control an inspection. Student e-mail is subject to search under Federal law. Any messages transmitted are under school jurisdiction and should not be considered private.

III.   Standards of Behavior

- Use of the district computer resources for non-academic reasons will only be allowed with authorization from proper school personnel

- Diskette, paper, cds, etc. are the property of Andover Central School and should not be wasted, treated improperly, or removed from their designated areas.

- Software and hardware are the property of Andover Central School and should not be treated improperly or removed from their designated areas.

- There should be no violation of privacy and personal safety. Do not give out personal information such as age, phone number, address, etc. over the ACS computer network. Violations of the privacy of others will be considered a severe offense.

IV. Lawful Use of Copyrighted Materials

- Unlawful duplication of computer related material or violations of copyright laws is prohibited.

- No person is allowed to install personal software on district computers without proper authorization.

- No person is allowed to install district software without proper authorization.

- Only public domain files (files available for public use) and files in which the author has given expressed written consent may be uploaded to the system. Individuals may download copyrighted material only for their own use following the provisions set forth in the U.S. Copyright law.

V. Illegal and Commercial Uses of the Internet

- Use of ACS computer networks for political, illegal, commercial, obscene, or other inappropriate purposes is not acceptable and will be addressed under the severe clause.

- Do not abuse computer or network hardware.

- Do not fraudulently use another person's name to send or receive messages. Violation will be considered a severe offense.

VI. Accessing Information Inappropriate For Students

Speech and actions that are inappropriate in an education setting an violate current school policy are prohibited. These include:

-       Inappropriate Language or Graphics – obscene, offensive, disrespectful, harassing, threatening, prejudicial, false, defamatory, or disrupts the educational process/environment

-       Dangerous Information – Information that if acted upon, could cause damage or danger.

VII. Use of Unauthorized Software – It is illegal to knowingly alter or destroy computer data.

- Do not copy or modify server or network system files.
- Do not copy any software or files that are the property of ACS.
                    - No attempt should be made to infiltrate a computing system or damage or alter
                          the software components or network.

VIII. <u>Unauthorized Access to Files</u>

- All files stored on the district technology systems are the property of Andover
  Central School and may be viewed by the network administrator and/or
  school administrators at any time.
- Keep passwords confidential.
- Do not try to learn the passwords of others.
- Do not try to read, modify, or delete files of other individuals.

IX. Disclaimer of Responsibility

Andover Central School will take extreme caution and make every reasonable effort to monitor proper technology use; however, the students and parent/guardian must also accept responsibility. There are areas of the Internet which may contain questionable material and inaccurate information. As a result, Andover Central School disclaims any responsibility for any inappropriate or objectionable materials that a students may obtain through school use of the Internet. Any information furnished by an individual to another user via the Internet is at the user's own risk. Andover Central School specifically denies any responsibility for the accuracy of quality of information obtained through its Internet services. In addition, Andover Central School is not responsible for loss of data caused by the negligence or the user's errors or omissions.

X. <u>Internet Violations</u>

Whenever possible, violations will be dealt with according to the terms of the
ACS Code of Conduct. Inappropriate use of the Andover Central
School computer information networks may also result in the following:

- Suspension or revocation of computer access
- Suspension or revocation of information network access
- School suspension or expulsion
- Legal action and prosecution by the authorities

ANDOVER CENTRAL SCHOOL
ELEMENTARY
GUIDELINES
FOR ACCEPTABLE COMPUTER AND INTERNET USE

Access to our computer network and the Internet is a privilege available to our students to help them with their learning. Our computers and the Internet provide an invaluable tool to help our students with their research, studying, and communicating. The Internet does include some information that is not appropriate for students. Our school's Internet service is filtered, however no such service is always perfect. Therefore, you must agree to behave properly while using this powerful learning tool.

1. The computers in my school will only be used for school-related activities.

2. I will not damage or mistreat any of the school's computer equipment.

3. I will not waste paper, diskettes, CD's, or computer supplies.

4. I will not open files that do not belong to me.

5. I will not copy, download, or install any programs to or from school computers.

6. Files on a floppy disk must be approved by a staff member before they may be used on a school computer.

7. I will not give out my name, address, phone number, or personal information over the Internet.

8. I understand that my teacher or other personnel may check any of my work on the computers and the Internet.

9. I understand that the Andover School Code of Conduct also applies to the use of computers and the Internet.

CONSEQUENCES OF BREAKING THE RULES:
- Suspension or removal of computer access
- Suspension or removal of Internet access
- School suspension or expulsion
- Legal action and prosecution by the authorities

SUBJECT: **THE CHILDREN'S INTERNET PROTECTION ACT: INTERNET CONTENT FILTERING/SAFETY POLICY**

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

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

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

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

a) Ensuring the presence of a teacher and/or other appropriate District personnel when students are accessing the Internet including, but not limited to, the supervision of minors when using electronic mail, chat rooms, and other forms of direct electronic communications. As determined by the appropriate building administrator, the use of e-mail and chat rooms may be blocked as deemed necessary to ensure the safety of such students;

b) Monitoring logs of access in order to keep track of the web sites visited by students as a measure to restrict access to materials harmful to minors;

c) The dissemination of the District's Acceptable Use Policy and accompanying Regulations to parents and students in order to provide notice of the school's requirements, expectations, and student's obligations when accessing the Internet. Parental and/or student consent, as may be applicable, shall be required prior to authorization for student use of District computers. In compliance with this Internet Safety Policy as well as the District's

SUBJECT: THE CHILDREN'S INTERNET PROTECTION ACT: INTERNET CONTENT
            FILTERING/SAFETY POLICY (Cont'd.)

           Acceptable Use Policy, unauthorized access (including so-called "hacking") and other unlawful activities by minors are prohibited by the District; and student violations of such policies may result in disciplinary action; and

d) Appropriate supervision and notification to minors regarding the prohibition as to unauthorized disclosure, use and dissemination of personal information regarding such students.

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

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

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

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

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

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

12/3/03

Proposed additions and current policies to the Andover Content Filtering Policies to be reviewed added to the District Policy Manual, by the Board of Education.

- All students are required to sign an Acceptable Use Policy outlining rules for using computers.
- All Internet is filtered using Lightspeed Content Filtering software.
- All wireless Internet is password protected.
- Student use of personal wireless devices are not allowed in class.
- All students in grades 4-12 have an Internet Safety class at least 1 time per year that includes:

    1. Cyber Predators
    2. Online Safety
    3. Cyber Bullying
    4. Intellectual Property
    5. Text Messaging

A Public Meeting regarding the Andover Content Filtering Policy and the Education was held on April 18, 2012. A public notice was displayed in the local News Paper.

SUBJECT: INSTRUCTIONAL TECHNOLOGY

The Board of Education recognizes its responsibility to further the District's educational goals through the use of appropriate and high quality technological materials and equipment. For the purpose of this policy, technology refers to computers, interactive videodiscs, Compact Disc-Read Only Memory (CD-ROM) devices, local area networks, satellite transmission and other telecommunications equipment.

Continuing advances in technology are bringing about changes that have an increasing impact on the way we obtain, process, evaluate and use information. Therefore, the District is committed to:

a)   A comprehensive staff development program to ensure appropriate and effective use of technology.

b)   The preparation of students to utilize multiple types of technology.

c)   The integration of technology within and across all curriculum areas.

d)   The equitable distribution and access to technological equipment and materials for all students.

e)   The promotion of technology as an alternative to traditional methods of gathering, organizing and synthesizing information.

f)   The provision of sufficient funds, within the budgetary constraints of the Board, for the implementation of technology instruction.

The Board directs the Superintendent or his/her designee to assess the technological needs of the District's instructional program, research and review current materials and make recommendations to the Board.

Adopted: 12/3/03

Instruction

SUBJECT: THE CHILDREN'S INTERNET PROTECTION ACT: INTERNET CONTENT FILTERING/SAFETY POLICY

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

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

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

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

a)   <u>Ensuring the presence of a teacher and/or other appropriate District personnel when students are accessing the Internet including, but not limited to, the supervision of minors when using electronic mail, chat rooms, and other forms of direct electronic communications. As determined by the appropriate building administrator, the use of e-mail and chat rooms may be blocked as deemed necessary to ensure the safety of such students;</u>

b)   Monitoring logs of access in order to keep track of the web sites visited by students as a measure to restrict access to materials harmful to minors;

c)   The dissemination of the District's Acceptable Use Policy and accompanying Regulations to parents and students in order to provide notice of the school's requirements, expectations, and student's obligations when accessing the Internet. Parental and/or student consent, as may be applicable, shall be required prior to authorization for student

use of District computers. In compliance with this Internet Safety Policy as well as the District's

(Continued)

SUBJECT: THE CHILDREN'S INTERNET PROTECTION ACT: INTERNET CONTENT **FILTERING/SAFETY POLICY (Cont'd.)**

Acceptable Use Policy, unauthorized access (including so-called "hacking") and other unlawful activities by minors are prohibited by the District; and student violations of such policies may result in disciplinary action; and

d)   Appropriate supervision and notification to minors regarding the prohibition as to unauthorized disclosure, use and dissemination of personal information regarding such students.

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

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

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

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

The District has provided reasonable public notice and has held at least one (1) public hearing or meeting to address the proposed Internet Content Filtering/Safety Policy prior to Board adoption.

Furthermore, appropriate actions will be taken to ensure the ready availability to the public of the District's Internet Content Filtering/Safety Policy, as well as any other District policies relating to the use of technology.

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

Adopted: 12/3/03

2003   8272

Instruction

SUBJECT: COMPUTER-ASSISTED INSTRUCTION

The Board of Education considers computers to be valuable tools for education, and encourages the use of computers and computer-related technology in District classrooms. The Board therefore directs the Superintendent of Schools to designate the Technology Committee to oversee the use of District computer resources.

The Technology Committee will recommend inservice programs for the training and development of District staff in computer skills, and for the incorporation of computer use in appropriate subject areas. Applications may include instruction in computer programming and math skills; the use of word processing software in teaching reading/writing and other language skills; the use of drawing and composition programs in art, music and other fine arts classes; the charting of data in history/geography classes; the use of drill mastery programs in foreign language classes; and training in data management software in business education. The computer coordinator will encourage computer use as an integral part of the curriculum, and not merely as a minor instructional resource or reward for completed classwork.

The Superintendent, working in conjunction with the designated Purchasing Agent for the District, and the Technology Committee will be responsible for the purchase and distribution of computer software/hardware throughout District schools.

Adopted: 12/3/03

Instruction

SUBJECT: STUDENT USE OF COMPUTER RESOURCES

Student use of the District's computer system is conditioned upon written agreement by all students and their parents or person in parental relation. Student use of the computer network will conform to the requirements of the acceptable use policy and any regulations adopted by the District.

Generally, the same standards of acceptable student conduct, which apply to any school activity, shall apply to the use of the computer network. This policy does not attempt to articulate all required and or acceptable uses of the District computer network; nor is it the intention of this policy to define all inappropriate usage.

District students shall also adhere to the laws, policies and rules governing computers including, but not limited to, copyright laws, rights of software publishers, license agreements, and student rights of privacy created by federal and state law.

Students who engage in unacceptable use may lose access to the computer network in accordance with applicable due process procedures, and may be subject to further discipline under the District's school conduct and discipline policy and the student Code of Conduct. The District reserves the right to pursue legal action against a student who willfully, maliciously or unlawfully damages the property of the District.

General Obligations Law Section 3-112

Adopted: 12/3/03

Instruction

SUBJECT: WORLD WIDE WEB: DISTRICT WEBSITE

In order to support the vision and mission of the School District, the District will create and maintain a website for the following purposes;

a)   A place to showcase innovative student and staff education projects, presentations, and learning experiences.

b)   A gateway to District and community resources and to educational websites.

c)   A means for the community to access District information.

d)   A means of "opening up" communications among students, District personnel, the community, and associated organizations.

The District website may not be used for any commercial promotional activity.

Regulations will be developed for implementing guidelines as to staff/students access and usage of the District website.

Adopted: 2/9/04