Technology Plan
Benzie County Central Schools

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District Code: 10015

Plan Start Date:	July 1, 2014	
Plan End Date:	June 30, 2017	
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County: Benzie

ISD: Traverse Bay Area ISD

URL: www.benzieschools.net/index.php?page=tech-plan

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2. INTRODUCTION

2.1. District Mission Statement

The mission of the District is to provide a safe learning environment that motivates all students to reach their highest potential by providing the necessary skills to become lifelong learners and leaders in a changing society.

2.2. Description of District

Benzie County Central Schools is a consolidated K-12 district with a land area of 375 square miles, located in parts of four counties: Benzie, Manistee, Grand Traverse, and Wexford. The school district is located in a beautiful rural section of northwestern Michigan and includes more than 50 inland lakes; Crystal Lake, the two Platte Lakes, and Lake Ann are the most prominent. Also, approximately ten miles of Lake Michigan shoreline is located on the Northwest boundary of the school district.

2.3. Demographics

- Number of students 1602
- Number of teachers 83.5
- Number of administrators 7
- Number of non-certified staff 80
- Buildings:

Benzie Central High School	9-12
Benzie Academy	Alt
Benzie Central Middle School	7-8
Betsie Valley Elementary School	K-5
Crystal Lake Elementary School	K-5
Lake Ann Elementary School	K-5
Platte River Elementary School	K-6

- Growth status: Declining
- Total General Fund Budget for 2013 -2014: $13,974,183

2.4. Technology Steering Committee 2013 -2014

Dave Micinski Superintendent	Steve Graetz Principal
Larry Haughn Principal	David Clasen Principal
Debra Norman Principal	Amiee Erfourth Principal
LeeAnn Stephan Principal	Kathy Neveu Teacher
Jeanne Pettengill Teacher	Shaun Johnson Teacher
Dave Grimes Teacher	Asa Kelly Teacher
Dick Hewer Finance	Karen Zickert Teacher
Courtney Groves Teacher	Eric Ringleberg Next IT
Doug Taylor Board of Ed	Fred Trimble Consultant

3. VISION AND GOALS

Benzie County Central Schools Technology Committee members view technology as a necessary and integral component of a complete education program, and believe that each student who enrolls in its schools should develop proficient technological skills that will enable the student to become a contributing member of an information based society.

Benzie County Central School District Technology Committee's mission is to provide continuous monitoring of technology and its relation to information and learning. The result of monitoring of technology shall be the annual refinement of the infrastructure necessary to sustain a new **technology-supported curriculum**, which is clearly aligned with the district's school improvement plan, as well as, state and national standards.

3.1. Vision Statements

- We believe all students can learn.
- We believe all students learn better in a technology rich environment.
- We believe that technology should be available as close as practical to the student workstation.
- We believe that access to technology resources is the key to success.

3.2. District Goals

- Guide the awareness and development of technology implementation in the district.
- Evaluate new telecommunications and information technology within the scope and direction of its ability to enhance the learning process.
- Build parental, business, and community involvement for collaborative technology activities.
- Plan professional development activities that are responsive to staff needs and district goals.
- Continue to refine policy and procedures for use of technology.
- Develop and document standards for procurement and use of technology.
- Evaluate and recommend necessary security measures throughout buildings.
- Plan for ongoing line item expenditures within the budget for technology.
- Provide for continued maintenance, operation, and upgrades of equipment.

3.3. Teacher and Student Goals

- Study and design technology integration in all curriculum areas to improve teachers' ability to facilitate student learning at all levels.
- Develop needs assessment process for professional development training for staff.
- Continue to align technology curriculum to Michigan Department of Education standards.
- Design professional development activities for staff around the ISTE Standards.

- Focus technology integration on the current school improvement goals in reading, math and writing through staff development strategies
- Continue to evaluate and assure a high level of technical support for staff and students throughout the district by developing a list of products and services that need to be obtained.
- Develop ongoing assessment processes for evaluating students' ability to use technologies.

3.4. Integration with Other Plans

This Tech Plan will align with existing School Improvement Plans and district curriculum. The following plans will be completed and aligned to this plan:

- Professional Development Plan
- Technical Support Plan
- School Improvement Plan
- Curriculum Planning Cycle

4. CURRICULUM INTEGRATION

During a previous tech plan cycle, the Technology Committee worked to revise the current technology curriculum, developing Standards and Benchmarks that aligned with the MDE Technology Content Standards. The district has also embarked on a comprehensive Curriculum Mapping project. During the first year of implementing the Technology Plan, staff will continue to meet to complete the curriculum using both these markers to elaborate on the curriculum to include content knowledge, examples of the application of the knowledge and teaching/learning time for each grade level.

The District policy requires that the District Core Curriculum in each subject area shall be reviewed yearly. As an outgrowth of the Tech Plan, policy will be written and adopted whereby the District Technology Committee and Curriculum Committee shall develop a curriculum which implements integration of technology into the accomplishment of curriculum goals and objectives. These committees will also be in charge of reviewing new software to new curricular goals and working with teachers and administrators when creating orders for software.

4.1. Instructional Technology Standards

Within the context of the Curriculum Process, steady progress will be expected toward the adoption and meeting of the following standards:

- METS standards for students
- METS standards for teachers
- TSSA standards for administrators

4.2. Technology Use

Technology tools will be used across all levels in support of the curriculum. Examples:

- Language Arts: writing and peer review
- Science: probeware and data analysis

- Math: graphing calculators, graphic manipulation of geometric forms
- Art: graphics, image editing
- Social Science: Internet exploration of other cultures (keypals)
- Music: music editing, composing

4.3. Curriculum and Teaching Strategies

The Technology Committee will identify current research and best practice models for the curriculum committees. Resources used for this will include:

- MiCLIMB
- Michigan Curriculum Frameworks
- Best Practices CD series
- Instructional Technology Across the Curriculum (ITAC) activities
  - techplan.org/documents/itac-mde1996.pdf
- Other resources as identified over the life of this plan.

5. STUDENT ACHIEVEMENT

Instructional strategies involving the use of technology will be firmly rooted in current research, directly aligned to curriculum, and aimed specifically at improving student achievement. Specific grade level expectations are listed in Appendix A.

5.1. Strategies

This plan will be implemented through the existing curriculum process using the following strategies:

- Each Curriculum Committee will have, as a regular member, at least one representative from the Technology Committee.
- Annual review of subject area curriculum will include addition of technology rich lessons and modification of existing units to incorporate technical tools.

5.2. Timeline

Yearly curriculum review of specific subject areas will include the addition of technology rich lessons and specific goals related to the Instructional Technology Standards. This cycle will be repeated throughout the life of this plan.

5.3. Standards and Benchmarks

Grade level expectations are established by MDE.

6. TECHNOLOGY DELIVERY

Various technologies will be utilized for the delivery of specialized or rigorous courses to extend and supplement existing teaching methodologies. These technologies include combinations of distance-learning and/or on-site tools to address the requirements of students' individualized learning needs. These technologies may also be applicable to enhancing the professional development of staff.

6.1. Distance Learning Technologies

6.1.1. Currently Being Used or Explored

- Michigan Virtual University
    - Student and staff online coursework; staff CEU's; continuing education for parents and community members
- MEL.org: Michigan Online Resources for Educators
- Computer Aided Design Computer Lab
    - Industry-standard instruction for students and/or community
- Web-based Seminars
    - Distance-learning and staff collaborations, online conferences
- Advanced Multimedia Lab
    - Web design classes for students and/or community; digital publications
- Television Production Lab (BCTV)
    - Advanced television and video production facility for professional level training
- Mobile Computing Devices
    - A combination of tablets, Chromebooks, and Laptops at various levels of instruction
- Geographic Information Systems
    - Used in environmental science classes

7. PARENT AND COMMUNITY RELATIONS

Parental involvement and community support are critical in the development and success of students within the district. When parents participate in their children's education, students become more enthusiastic about learning and their performance improves.

The district feels it is important to include as many parents and community members as possible in deciding what sort of technology should be put before the students within the district. The district feels it is critical for parents and the community as a whole to be informed about issues that are to be brought before various decision-making bodies throughout the district.

7.1. Publication of Technology Plan

This plan will be published on the district web site in its final draft. All intermediate drafts during the review and assessment process will also be posted.

7.2. Parent and Community Communications

- Parent and community input will be sought during the review and assessment phases of this plan through email and on-line surveys, and input forms on the district web site.
- The schedule for School Board meetings will be posted on the district web site.
- Minutes of School Board meetings will be posted on the district web site.

- A new Student Information System will be implemented which includes a web based parent portal to allow parents to check student information in real time.

7.3. Technology Committee Membership

The district Technology Committee is charged with the responsibility for the authoring, review, and assessment of this plan. Membership in the committee will include:

- Teachers: at least one representative from each level (lower elementary, upper elementary, middle school, high school) and from each major curriculum area.
- Administrators: Both building and central administration.
- Parent: at least one parent representative.
- Community: at least one local community or business representative.

8. COLLABORATION

District owned technology resources are recognized as public resources. Whenever practical, district owned technology resources will be made available for public educational use. Indirect collaborations occur within the district through the Benzie County Community Education office. Through the Community Education program, the school makes various computer labs available to the public. Over the years, various classes have been offered. Employees of locally run businesses, hospitals, and government agencies have attended these classes.

8.1. Computer Labs

- Existing district computer labs will be made available for community education, adult education, and training opportunities whenever practical.
- Unfilled seats in professional development classes offered in district computer labs will be made available to interested parents and community members.
- Guidelines will be developed to allow progress toward these goals while maintaining the security and integrity of the district's technical systems.

8.2. Web Resources

Space for public electronic "bulletin boards" for posting community events will be made available on the district web site at the request of local municipalities and organizations.

9. PROFESSIONAL DEVELOPMENT

Professional development is recognized as an ongoing need for all district personnel.

9.1. Professional Development Plan

9.1.1. Instructional Staff

All professional development investment will be based on a demonstrable curricular need.

- Skills Based PD: Skills based training will be offered only in support of other PD and not as the focus of any classes.
- Standards Based PD: Professional development classes that focus on technically rich curricular lessons will be the preferred mode of training.
- Certifications/Standards: There is a recognized long-term goal of certification of all staff in meeting Standards and Benchmarks for the integration of technology, such as:
    - COATT certification
    - NETS for teachers

9.1.2. Administrative Staff

A combination of application specific and standards based professional development opportunities will be sought for both building and central administration staff. Examples include:

- MSBO sponsored trainings and certification paths
- TSSA based training opportunities
- Association sponsored trainings and conferences (e.g. MSBO, MASA, MASSP, MEMSPA)

9.2. Professional Development Focus

The overall goal of professional development is to change and support the way teachers teach and students learn. Research suggests that skills-based training (e.g. Intermediate Word, Beginning PowerPoint, etc.) has little impact on the use of technology in teaching and learning.

True integration of technology will be achieved only with curriculum and standards based professional development that helps teachers and administrators in the development of a technology rich curriculum. The expected outcomes for this type of professional development are technology rich classroom lessons and resources.

9.3. Professional Development Timeline

A yearly PD calendar will be developed and maintained that lists all PD opportunities available to district staff. Both internal and external opportunities will be listed.

9.4. Resources and Standards

Both internal and external resources will be encouraged for professional development including:

9.4.1. Resources

- Internal district staff, both instructional and technical
- ISD sponsored professional development opportunities
- MiVU/NETg on-line courses
- MDE sponsored professional development opportunities
- Professional association sponsored opportunities
- Instructional: MACUL, MIEM, MAME, etc.
- Administrative: MSBO, MASA, MASSP
- Technical: MACUL Tech Coordinators Conference, MAEDS

9.4.2. Standards and Certifications

- Instructional
    - METS for students
    - METS for Teachers
    - COATT
- Administrative
    - MSBO Certifications
    - TSSA Standards for Administrators
- Technical
    - Industry Certifications: MCSE, etc.
    - Manufacturer Certifications: Cisco, Compaq, Apple, etc.
    - MSBO certifications

10. SUPPORTING RESOURCES

True integration of technology involves more than curriculum. Technology must be viewed as an integral part of most functions of the district from business through instruction. The following resources will be pursued and maintained within budget limitations.

10.1. Internal Resources

- District Policy and Guidelines as they relate to technology will be reviewed annually to maintain consistency with this plan as well as state and federal requirements.
- Documentation of technical systems will be maintained on an on-going basis and will be reviewed as part of the annual review of this Plan.
- A web presence will be maintained to support district instructional, administrative, informational and marketing priorities.
- Software licensing will be strictly documented and maintained.

10.2. External Resources

- REMC materials: video lending, video streaming, and other materials and resources
- ISD resources for professional development, tech support, and other district needs
- Online subscription services for technology rich instructional materials
- Outsourcing of less-than-full time needs for professional development, tech support, consulting services, etc.

11. TECHNICAL INFRASTRUCTURE

The technical infrastructure from desktop through to the Internet will be reviewed annually. A priority list of needs will be developed as part of the annual budget process.

11.1. Current Status

Counts and ages of District technical resources will be collected, updated annually and reported to the Superintendent.

11.1.1. Computer Workstations

The following is an approximate list of computing devices by building as of June 1, 2014.

	2013-2014	2014-2015	2015-2016	2016-2017
High School				
Desktop Lab Computers	105	105	105	105
Mobile Devices	35	70	105	105
Middle School				
Desktop Lab Computers	35	35	35	35
Mobile Devices	35	70	105	105
Platte River Elementary				
Desktop Lab Computers	35	35	35	35
Mobile Devices	150	185	220	220
Lake Ann Elementary				
Desktop Lab Computers	35	35	35	35
Mobile Devices	20	55	90	90
Crystal Lake Elementary				
Desktop Lab Computers	35	35	35	35
Mobile Devices	20	55	90	90
Betsie Valley Elementary				
Desktop Lab Computers	35	35	35	35
Mobile Devices	20	55	90	90
Benzie Academy				
Desktop Lab Computers	20	20	20	20

11.1.2. Cabling Infrastructure

Most of the data cable in the buildings is Category 5e and Category 6 UTP cable. Cable use is close to or at capacity in most buildings. Additional cabling will be needed to accommodate additional workstations and an expansion of wireless services and devices. All data cable and fiber was upgraded in the summer of 2013 funded by a Technology Bond.

11.1.3. Network Hardware

All network infrastructure was upgraded in 2013 and 2014. All switches are 1Gb capable. Some are Power over Ethernet to support wireless devices. Connections between the MDF and IDF was upgraded to fiber. Some connections are 1Gb backbone, some are 10Gb backbone.

11.1.4. Network Operating System and Servers

- All servers are running Microsoft server OS. Several versions of Windows Server are used.
- Approximately 9 physical servers and 7 virtual servers are maintained.

11.1.5. Connectivity and Internet

- Internet access is provided by Project Interconnect to the High School.
- Internal network connections provide network services and Internet access to the Middle School.
- Leased fiber lines (Charter) are maintained from the High School to all elementary schools to provide network connectivity and Internet access.
- Bandwidth upgrades to the Elementary fiber lines are investigated each year as part of the USF process

11.1.6. Software Applications

- Microsoft Office is loaded on all computers.
- The HR/Finance package will remain in place.
- The Student Information System is: PowerSchool

11.2. Current and Future Needs

- A replacement schedule for Servers will be defined in year one of this plan.
- A replacement schedule for computer workstations will be defined in year one of this plan.
- Student email options will be explored in conjunction with Project Reimagine and MicroSoft 365
- A replacement schedule for mobile devices will be defined in year one of this plan
- Replacement of the district phone system will be necessary during the scope of this plan

11.3. Technical Standards

Technical standards for district assessment of donations, new purchases, and retirement of technical resources will be reviewed on an annual basis and published.

- Minimum technical standards for donations will be identified in year one of this plan and updated annually.
- Technical standards for new purchase compatibility with current network will be established in year one of this plan and updated annually.

11.4. Technical Support

Benzie Schools contracts with three companies to provide all tech support services.

- Next IT
    - Provides all network engineer and technician level support
- Trimble Consulting
    - Provides tech admin level support
- Telecomp Solutions
    - Provides direct support for USF forms and process

12. ACCESS TO TECHNOLOGY

Access to technology will be assessed as part of the annual review of this plan to track progress toward the goal of continual improvement in access to technology for all district students, staff, and community.

12.1. Access to Resources

- Computer labs will be actively scheduled to ensure access to all students.
- Access to computer labs by parents and community will be allowed when not needed by students. Public use will only be scheduled when security and technical integrity can be assured.
- Additional wireless technologies will be explored as a way to make computer resources more available to classroom teachers, students and community.
- ISD resources will be explored for special needs adaptive technology resources.

13. FUNDING AND BUDGET

The budget items covered by this Technology Plan are projected to remain constant, or increase slightly, as a percentage of the total district budget. The actual amounts available will be determined on a yearly basis.

13.1. Variables

- The single largest variable is the State of Michigan's School Aid Budget. The actual amounts available to the district are unknown. Without this information from the State, it is impossible to predict the amount of budget money that will be available for the implementation of this plan.

13.2. Baseline Amounts: 2013-2014

The following amounts have been spent on technology related budget items during the fiscal year 2013-2014.

Baseline 2013-2014		
Total General Fund Expenditures		
Hardware and networking costs:		$8,772
Maintenance and service costs:		$3,355
Software and curriculum support:		$33,213
Professional development and training:		$21,973
Technical support:		$94,800
Computer workstations:		$1,797
Total technology expenditures:		$163,910
Total Bond Fund Expenditures		
Hardware and networking costs:		$88,000
Maintenance and service costs:		$25,000
License agreements:		$7,200
Computer workstations:		$80,848
Total technology expenditures:		$201,048

13.3. Projections for 2014-2015

Projections for 2014-2015		
Total General Fund Expenditures		
Hardware and networking costs:		$8,772
Maintenance and service costs:		$3,355
Software and curriculum support:		$33,213
Professional development and training:		$21,973
Technical support:		$94,800
Computer workstations:		$2,000
Total technology expenditures:		$164,113
Total Bond Fund Expenditures		
Hardware and networking costs:		$75,000
Maintenance and service costs:		$25,000
License agreements:		$3,500
Computer workstations:		$45,000
Total technology expenditures:		$148,500

13.4. Projections for 2015-2016

Total General Fund Expenditures		
Hardware and networking costs:		$8,991
Maintenance and service costs:		$3,405
Software and curriculum support:		$34,209
Professional development and training:		$21,973
Technical support:		$104,280
Computer workstations:		$2,500
Total technology expenditures:		$175,358

13.5. Projections for 2016-2017

Projections for 2016-2017		
Total General Fund Expenditures		
Hardware and networking costs:		$9,080
Maintenance and service costs:		$3,405
Software and curriculum support:		$34,209
Professional development and training:		$21,973
Technical support:		$105,844
Computer workstations:		$3,000
Total technology expenditures:		$177,511

14. COORDINATION OF RESOURCES

As technology based solutions become more common, the amount of money needed to support these technical systems increases. To meet this increasing need, the following sources of funding resources will be explored.

14.1. Funding Option Possibilities

- Educational Foundation
- General Fund
- Bond and sinking fund options
- Building funds (consumables)
- USF (E-Rate)
- Grants (local, state and federal)

15. MONITORING AND EVALUATION

15.1. Evaluation Process

- This plan will be evaluated on an annual basis as part of the School Improvement Process.
- Bi-annual staff and student surveys will be conducted to assess the change, if any, in the way technology is used in teaching and learning.
- A priority list of technology expenditures will be developed each year as part of the budget process.

15.2. Indicators of Success

- Progress on the technology priority list will be assessed yearly with the results becoming the basis for the following year's list.
- An increase in the use of technology in teaching and learning, as measured by surveys, will determine the level of success.

15.3. Monitoring and Evaluation Responsibility

Responsibility for the monitoring of progress and evaluation will rest with the Technology Committee which will prepare an annual report of progress to be delivered to the Superintendent on an annual basis.

16. ACCEPTABLE USE POLICY

The district Acceptable Use Policy is attached as Appendix B. This policy will be reviewed annually to make sure it is in compliance with government regulations.

17. Appendix A: Grade Level Expectations

GRADES K-2
SOCIAL, ETHICAL, AND HUMAN ISSUES
By the end of Grade 2 each student will:
1. identify common uses of information and communication technologies
2. discuss advantages and disadvantages of using technology
3. recognize that using a password helps protect the privacy of information
4. discuss scenarios describing acceptable and unacceptable uses of age-appropriate technology (e.g., computers, phones, 911, internet, email) at home or at school
5. discuss the consequences of irresponsible uses of technology resources at home or at school
6. understand that technology is a tool to help complete a task
7. understand that technology is a source of information, learning, and entertainment
8 . identify places in the community where one can access technology

TECHNOLOGY PRODUCTIVITY TOOLS
By the end of Grade 2 each student will:
1. know how to use a variety of productivity software (e.g., word processors, drawing tools, presentation software) to convey ideas and illustrate concepts
2 . be able to recognize the best type of productivity software to use for certain age-appropriate tasks (e.g., word processing, drawing, web browsing)
3. be aware of how to work with others when using technology tools (e.g., word processors, drawing tools, presentation software) to convey ideas or illustrate simple concepts relating to a specified project

TECHNOLOGY COMMUNICATIONS TOOLS
By the end of Grade 2 each student will:
1. identify procedures for safely using basic telecommunication tools (e.g., e-mail, phones) with assistance from teachers,

parents, or student partners
2. know how to use age-appropriate media (e.g., presentation software, newsletters, word processors) to communicate ideas to classmates, families, and others
3. know how to select media formats (e.g., text, graphics, photos, video), with assistance from teachers, parents, or student partners, to communicate and share ideas with classmates, families, and others

TECHNOLOGY RESEARCH TOOLS
By the end of Grade 2 each student will:
1. know how to recognize the Web browser and associate it with accessing resources on the internet
2. use a variety of technology resources (e.g., CD-ROMs, DVDs, search engines, websites) to locate or collect information relating to a specific curricular topic with assistance from teachers, parents, or student partners

3. interpret simple information from existing age-appropriate electronic databases (e.g., dictionaries, encyclopedias, spreadsheets) with assistance from teachers, parents, or student partners
4. provide a rationale for choosing one type of technology over another for completing a specific task

TECHNOLOGY PROBLEM-SOLVING AND DECISION-MAKING TOOLS

By the end of Grade 2 each student will:
1. discuss how to use technology resources (e.g., dictionaries, encyclopedias, search engines, websites) to solve age-appropriate problems
2 . identify ways that technology has been used to address real-world problems (personal or community)

GRADES 3-5

SOCIAL, ETHICAL, AND HUMAN ISSUES

By the end of Grade 5 each student will:

1. identify cultural and societal issues relating to technology
2. discuss how information and communication technology supports collaboration, productivity, and lifelong learning
3. discuss how various assistive technologies can benefit individuals with disabilities
4. discuss the accuracy, relevance, appropriateness, and bias of electronic information sources
5. discuss scenarios describing acceptable and unacceptable uses of technology (e.g., computers, digital cameras, cell-phones, PDAs, wireless connectivity) and describe consequences of inappropriate use
6. discuss basic issues regarding appropriate and inappropriate uses of technology (e.g., copyright, privacy, file sharing, spam, viruses, plagiarism) and related laws
7. use age-appropriate citing of sources for electronic reports
8. identify appropriate kinds of information that should be shared in public chat rooms
9. identify safety precautions that should be taken while on-line
10. explore various technology resources that could assist in pursuing personal goals
11. identify technology resources and describe how those resources improve the ability to communicate, increase productivity, or help achieve personal goals

TECHNOLOGY PRODUCTIVITY TOOLS

By the end of Grade 5 each student will:
1. know how to use menu options in applications to print, format, add multimedia features; open, save, manage files; and use various grammar tools (e.g., dictionary, thesaurus, spell-checker)
2. know how to insert various objects (e.g., photos, graphics, sound, video) into word processing documents, presentations, or web documents
3. use a variety of technology tools and applications to promote creativity

4. understand that existing (and future) technologies are the result of human creativity
5. collaborate with classmates using a variety of technology tools to plan, organize, and create a group project

TECHNOLOGY COMMUNICATIONS TOOLS

By the end of Grade 5 each student will:
1. use basic telecommunication tools (e.g., e-mail, WebQuests, IM, blogs, chat rooms, web conferencing) for collaborative projects with other students
2. use a variety of media and formats to create and edit products (e.g., presentations, newsletters, brochures, web pages) to communicate information and ideas to various audiences
3. identify how different forms of media and formats may be used to share similar information, depending on the intended audience (e.g., presentations for classmates, newsletters for parents)

TECHNOLOGY RESEARCH TOOLS

By the end of Grade 5 each student will:
1. use Web search engines and built-in search functions of other various resources to locate information
2. describe basic guidelines for determining the validity of information accessed from various sources (e.g., web site, dictionary, on-line newspaper, CD-ROM)
3. know how to independently use existing databases (e.g., library catalogs, electronic dictionaries, encyclopedias) to locate, sort, and interpret information on an assigned topic
4. perform simple queries on existing databases and report results on an assigned topic
5. identify appropriate technology tools and resources by evaluating the accuracy, appropriateness, and bias of the resource
6. compare and contrast the functions and capabilities of the word processor, database, and spreadsheet for gathering data, processing data, performing calculations, and reporting results

TECHNOLOGY PROBLEM-SOLVING AND DECISION-MAKING TOOLS

By the end of Grade 5 each student will:
1. use technology resources to access information that can assist in making informed decisions about everyday matters (e.g., which movie to see, which product to purchase)
2. use information and communication technology tools (e.g., calculators, probes, videos, DVDs, educational software) to collect, organize, and evaluate information to assist with solving real-life problems (personal or community)

GRADES 6-8

SOCIAL, ETHICAL, AND HUMAN ISSUES

By the end of Grade 8 each student will:
1. understand the potential risks and dangers associated with on-line communications
2 . identify security issues related to e-commerce

3. discuss issues related to acceptable and responsible use of technology (e.g., privacy, security, copyright, plagiarism, spam,
viruses, fi le-sharing)
4. describe possible consequences and costs related to unethical use of information and communication technologies
5. discuss the societal impact of technology in the future
6. provide accurate citations when referencing information from outside sources in electronic reports
7. use technology to identify and explore various occupations or careers
8. discuss possible uses of technology (present and future) to support personal pursuits and lifelong learning
9 . identify uses of technology to support communication with peers, family, or school personnel

TECHNOLOGY PRODUCTIVITY TOOLS

By the end of Grade 8 each student will:
1. apply common software features (e.g., thesaurus, formulas, charts, graphics, sounds) to enhance communication and
to support creativity
2. use a variety of technology resources, including the internet, to increase learning and productivity
3. explore basic applications that promote creativity (e.g., graphics, presentation, photo-editing, programming, video-editing)
4. use available utilities for editing pictures, images, or charts
5. use collaborative tools to design, develop, and enhance materials, publications, or presentations

TECHNOLOGY COMMUNICATIONS TOOLS

By the end of Grade 8 each student will:
1. use a variety of telecommunication tools (e.g., e-mail, discussion groups, IM, chat rooms, blogs, video-conferences, web
conferences) or other online resources to collaborate interactively with peers, experts, and other audiences
2. create a project (e.g., presentation, web page, newsletter, information brochure) using a variety of media and formats
(e.g., graphs, charts, audio, graphics, video) to present content information to an audience

TECHNOLOGY RESEARCH TOOLS

By the end of Grade 8 each student will:
1. use a variety of Web search engines to locate information
2. evaluate information from various online resources for accuracy, bias, appropriateness, and comprehensiveness
3. identify types of internet sites based on their domain names (e.g., edu, com, org, gov, au)
4. know how to create and populate a database
5. perform queries on existing databases
6. know how to create and modify a simple database report

7. evaluate new technology tools and resources and determine the most appropriate tool to use for accomplishing a specific task

TECHNOLOGY PROBLEM-SOLVING AND DECISION-MAKING TOOLS

By the end of Grade 8 each student will:

1. use database or spreadsheet information to make predictions, develop strategies, and evaluate decisions to assist
with solving a basic problem
2. describe the information and communication technology tools to use for collecting information from different sources,
analyze findings, and draw conclusions for addressing real-world problems

GRADE 9-12

BASIC OPERATIONS AND CONCEPTS

By the end of Grade 12 each student will:

1. discuss emerging technology resources (e.g., podcasting, webcasting, compressed video delivery, online file sharing,
graphing calculators, global positioning software)
2. identify the capabilities and limitations of emerging communication resources
3. understand the importance of both the predictable and unpredictable impacts of technology
4. identify changes in hardware and software systems over time and discuss how these changes might affect the individual
personally in his/her role as a lifelong learner
5. understand the purpose, scope, and use of assistive technology
6. understand that access to online learning increases educational and workplace opportunities
7. be provided with the opportunity to learn in a virtual environment as a strategy to build 21st century learning skills
8. understand the relationship between electronic resources, infrastructure, and connectivity
9. routinely apply touch-typing techniques with advanced accuracy, speed, and efficiency
10. assess and solve hardware and software problems by using online help or other user documentation and support
11. identify common graphic, audio, and video fi le formats (e.g., jpeg, gif, bmp, mpeg, wav)
12. demonstrate how to import/export text, graphics, or audio fi les
13. proofread and edit a document using an application’s spelling and grammar checking functions

SOCIAL, ETHICAL, AND HUMAN ISSUES

By the end of Grade 12 each student will:

1. identify legal and ethical issues related to use of information and communication technology
2. analyze current trends in information and communication technology and assess the potential of emerging technologies

for ethical and unethical uses

3. discuss possible long-range effects of unethical uses of technology (e.g., virus spreading, fi le pirating, hacking) on cultures and society
4. discuss the possible consequences and costs of unethical uses of information and computer technology
5. identify ways that individuals can protect their technology systems from unethical or unscrupulous users
6. demonstrate the ethical use of technology as a digital citizen and lifelong learner
7. explain the differences between freeware, shareware, and commercial software
8. adhere to fair use and copyright guidelines
9. create appropriate citations for resources when presenting research findings
10. adhere to the district acceptable use policy as well as state and federal laws
11. explore career opportunities and identify their related technology skill requirements
12. design and implement a personal learning plan that includes technology to support his/her lifelong learning goals

TECHNOLOGY PRODUCTIVITY TOOLS

By the end of Grade 12 each student will:
1. complete at least one online credit, or non-credit, course or online learning experience
2. use technology tools for managing and communicating personal information (e.g., finances, contact information,
schedules, purchases, correspondence)
3. have access to and utilize assistive technology tools
4. apply advanced software features such as an application's built-in thesaurus, templates, and styles to improve the
appearance of word processing documents, spreadsheets, and presentations
5. identify technology tools (e.g., authoring tools or other hardware and software resources) that could be used to create a group project
6. use an online tutorial and discuss the benefits and disadvantages of this method of learning
7. develop a document or fi le for inclusion into a web site or web page

8. use a variety of applications to plan, create, and edit a multimedia product (e.g., model, webcast, presentation,
publication, or other creative work)
9. have the opportunity to participate in real-life experiences associated with technology-related careers

TECHNOLOGY COMMUNICATIONS TOOLS

By the end of Grade 12 each student will:
1. identify and describe various telecommunications or online technologies (e.g., desktop conferencing, listservs, blogs, virtual reality)
2. use available technologies (e.g., desktop conferencing, e-mail, groupware, instant messaging)
to communicate with others on a class assignment or project

3. use a variety of media and formats to design, develop, publish, and present products (e.g.,
presentations, newsletters, web sites) to communicate original ideas to multiple audiences
4. collaborate in content-related projects that integrate a variety of media (e.g., print,
audio, video, graphic, simulations, and models) with presentation, word processing,
publishing, database, graphics design, or spreadsheet applications
5. plan and implement a collaborative project using telecommunications tools (e.g., groupware, interactive web sites, videoconferencing)

TECHNOLOGY RESEARCH TOOLS

By the end of Grade 12 each student will:
1. compare, evaluate, and select appropriate internet search engines to locate information
2. formulate and use evaluation criteria (authority, accuracy, relevancy, timeliness)
for information located on the internet to present research findings
3. determine if online sources are authoritative, valid, reliable, relevant, and comprehensive

4. distinguish between fact, opinion, point of view, and inference
5. evaluate resources for stereotyping, prejudice, and misrepresentation
6. develop a plan to gather information using various research strategies (e.g., interviews, questionnaires, experiments, online surveys)

TECHNOLOGY PROBLEM-SOLVING AND DECISION-MAKING TOOLS

By the end of Grade 12 each student will:
1. use a variety of technology resources (e.g., educational software, simulations, models)
for problem solving and independent learning
2. describe the possible integration of two or more information and communication technology
tools or resources to collaborate with peers, community members, and field experts
3. formulate a research question or hypothesis, then use appropriate information and
communication technology resources to collect relevant information, analyze the findings, and report the results to multiple audiences

18. Appendix B: Acceptable Use Policy

WEB SITE FILTERING POLICY AND STRUCTURE

Benzie currently uses an Internet security appliance called SonicWall (http://www.SonicWall.com). Its primary function is to "hide" Benzie's school networks from outside hackers. The other component, which is bundled with the SonicWall appliance, contains content filtering functionality. The content filtering software is a product called CyberNOT (http://www.cyberpatrol.com/cybernot/criteria.htm).

SonicWALL uses the CyberNOT list, licensed from The Learning Company. The CyberNOT list is managed and maintained by The Learning Company's CyberNOT Oversight Committee. The committee is made up of members from a wide range of social, political, and civic organizations, including the National Association for the Advancement of Colored People (NAACP), the Gay and Lesbian Alliance Against Defamation (GLAAD), Morality in Media, women's rights groups, the teacher's union, and the PTO, as well as a superintendent of schools, a social worker, a psychologist, and a minister. The content list that is supplied with CyberNOT includes mostly "value" based, or "quality" based content. This refers to sites blocked that are qualified as inappropriate based on categories, such as pornography, intolerance, etc.

In addition to the CyberNOT list, technology staff at Benzie Schools maintain a list of web sites that have been reported by professional staff as blatently obscene, violent, or intolerant. This list is regularly reviewed by members of the technology committee. Furthermore, access to known “anonomizer” sites, which allow individuals to visit blocked web sites by going “through” their servers, are also blocked. When a member of the professional staff discovers a web site that either should be blocked but is not, or a site that is blocked but should not be blocked, they can access a local pager number to alert technology staff.

COMPUTER TECHNOLOGY CODE OF CONDUCT

Benzie Central High School encourages and strongly promotes the use of technology in education. To ensure that students, staff, parents, and other community members can take full advantage of the technologies available, all use of technology must have proper authorization and adherence to the school's technology code of conduct.

1. All use of technology must be in support of and consistent with the purposes of the school district. It is the student's responsibility to keep all obscene material, inappropriate files, and personal software off school district technology. All students should use language appropriate for school situations as indicated by school codes of conduct.
2. Each student shall accept the responsibility for the preservation and care of technology to include the respect for another individual's work, files, and programs and to ensure that his or her food and drink are kept away from all equipment.

3. It is the student's responsibility to make sure no equipment or software is destroyed, modified, or abused in any way. This, of course, includes operating systems. Since unofficial tampering and exploration of a computer operating system cam disrupt the operation of one or more school computers, such exploration is not allowed. It is also the user's responsibility to obtain proper authorization prior to the addition, removal, or relocation of any software, batch files, or equipment.
4. Students shall not intentionally seek information on, obtain copies of, or modify files, other data, or passwords belonging to other users, or disrespect other users on the school computers. Students shall not disrupt other users by broadcasting or sending messages to others.
5. Students should keep files to a minimum, deleting files that are no longer necessary. Unnecessary files take up limited network storage.
6. Students will be held accountable for any attempts at knowingly installing and/or running a computer virus. Students will also be held accountable for any computer viruses that they have personally written and/or introduced.
7. The consequences of failing to adhere to the Technology Code of Conduct are defined in the student handbook. The standard consequences for vandalism, insubordination, and other misbehavior apply. The following are specific consequences that apply only to the misuse of technology.
Students may be required to use computers only when a staff member is present in the computer room.
Students may be required to serve a suspension from using all computer equipment and/or an after-school detention.
Students may be required to use one specific computer or lab of computers.
Students may be required to make full financial restitution for damages.
If necessary, students may be banned from using all computer equipment for an entire semester.

BENZIE CENTRAL SCHOOLS
INTERNET REGISTRATION CONTRACT

In exchange for the use of the Benzie Central Schools Internet Connection. I, _____ agree to abide by the contents of the Benzie Central Schools Internet Policy and the following Internet Registration Contract:
1. That the use of the Benzie Central Schools Internet Connection is a privilege which may be revoked by staff or faculty at any time for abusive and/or inappropriate conduct. Such conduct would include, but not be limited to, the placing of unlawful information or graphics on the system, and the use of obscene, abusive or otherwise objectionable language in either public or, upon the registration of complaint, private messages or other systems that are accessed through the Benzie Central Schools Internet Connection. The staff and faculty of the Benzie Central Schools will be the sole arbiter of what constitutes obscene, abusive or objectionable language or conduct.
2. That the use of the Benzie Central Schools Internet Connection is a privilege which may be revoked by the administration of the system at any time for conduct that embarrasses, harms or in any way detracts form the good name

and reputation of the Benzie Central Schools and/or its faculty and staff, or any organizations, groups and institutions with which the Benzie Central Schools Internet Connection is affiliated. The faculty and staff of the Benzie Central Schools will be the sole arbiter of what constitutes this unacceptable conduct.
3. That the Benzie Central Schools Internet Connection reserves the right to review any materials stored in any files and will edit or remove any material which the faculty or staff, at its sole discretion, believes may be unlawful, obscene, abusive or otherwise objectionable.
4. That all information services and features contained on the Benzie Central Schools Internet Connection are intended for the educational use of the students, faculty, and staff, and any commercial and/or unauthorized use of these materials and/pr services is strictly forbidden.
5. That the use of email services is allowed and encouraged as an educational activity, however the use of chatrooms or similar conversational services is allowed ONLY under supervision of a faculty or staff person.
6. That in consideration for the privilege of using the Benzie Central Schools Internet Connection and in consideration for having access to the information contained within, I hereby release the Benzie Central Schools, its faculty and staff, and all organizations, groups and institutions with which the Benzie Central Schools Internet Connection is affiliated, for any and all claims of any nature arising from use, or inability to use, said Internet connection.
7. If a student fails to responsibly abide by the necessary code of conduct, the student elects the standard choices for irresponsible actions. As necessary, administration may need to limit the usage of computers by destructive and/or irresponsible students in order to ensure a quality computer system for the responsible student. This may involve limiting a student to the use of only one room of computers or one computer, or limiting a student to the computer only with adult supervision. In severe cases, a student may be assigned detention, or forfeit computer privileges for a set period of time.

_____
_____

Signature of Parent or Guardian Signature of Student

_____
_____

Daytime Telephone - Evening Telephone Date

19. Appendix C: USF

As an addition to our budget, we intend to supplement our school funding each year by applying to the Universal Service Fund for discounts on goods and services. These goods and services provide us with assistance in day-to-day essential operations.

2014-2015

Telecommunications:

- local telephone services
- long distance services
- cellular service
- Network Connections between buildings
- Possible switch to PRI lines

Internet Access

- Student email service
- Web Hosting
- Internet Access

Internal Connections

- Servers
- Network Electronics
- Backup
- Campus Wireless
- Data/voice cabling
- Data fiber cabling within and between buildings
- Uninterruptible Power Supply

Basic Maintenance of eligible equipment

- Maintenance and installation of eligible equipment

Other

- Phone System Upgrade

2015-2016

Telecommunications:

- local telephone services
- long distance services
- cellular service
- Network Connections between buildings
- Possible switch to PRI lines

Internet Access

- Student email service
- Web Hosting
- Internet Access

Internal Connections

- Servers
- Network Electronics
- Backup
- Campus Wireless
- Data/voice cabling

- Data fiber cabling within and between buildings
- Uninterruptible Power Supply

Basic Maintenance of eligible equipment

- Maintenance and installation of eligible equipment

Other

- Phone System Upgrade

2016-2017

Telecommunications:

- local telephone services
- long distance services
- cellular service
- Network Connections between buildings
- Possible switch to PRI lines

Internet Access

- Student email service
- Web Hosting
- Internet Access

Internal Connections

- Servers
- Network Electronics
- Backup
- Campus Wireless
- Data/voice cabling
- Data fiber cabling within and between buildings
- Uninterruptible Power Supply

Basic Maintenance of eligible equipment

- Maintenance and installation of eligible equipment

Other

- Phone System Upgrade