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Educational Technology Plan

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Fairbanks North Star Borough School District (FNSBSD) 2010-2011 Profile

Schools: 35 **Students:** 14,108 **Teachers, Counselors, and Librarians:** 1,010 **Support Staff:** 919

Vision: Excellence and Equity for All

Primary Performance Goals

- Improve overall performance for all students.
- Increase the graduation rate and reduce the dropout rate.
- Improve math skills of African American students, Alaska Native/American Indian students, and Students with Disabilities to meet or exceed the state Annual Measureable Objectives in math.
- Improve writing skills of Alaska Native/American Indian students, Students with Disabilities, Limited English Proficient students, and Economically Disadvantaged students to increase the percent proficient and advanced, and/or meet or the exceed the state Annual Measurable Objectives in language arts.

FNSBSD Educational Technology Vision

Preparing our students for the future requires innovative technology. A variety of technology formats and accessible resources allows every child within the FNSBSD to reach his or her potential and achieve success. An array of quality digital resources, online learning for students and teachers, and technologies, some of them not yet discovered, will shape how teachers teach and students learn. When students have access to technology resources across all content areas, not only will they increase their academic achievement, but they will become proficient in the use of technology and be responsible for the ethical and safe use of information. Support to teachers will be vital as they infuse new and innovative technologies into rigorous curricula and into their teaching practices. By positioning ourselves to seek out and embrace the practical application of technology to improve academic achievement and college and career readiness, FNSBSD will ensure students who graduate are able to compete and excel as they shape our future world.

Introduction to the 2011-2014 FNSBSD Educational Technology Plan

The following nine goals are the foundation of the FNSBSD Educational Technology Plan (ETP), which was developed with input from a variety of internal and external stakeholders:

- Goal 1: Ensure all students and staff have equitable access to technology (bandwidth, software, and hardware).
- Goal 2: Standardize all hardware and software use and management and establish a process for evaluating and adding new technologies.
- Goal 3: Provide professional development opportunities for all district personnel to attain competency in the use of designated technologies to increase student achievement.
- Goal 4: Develop a K-12 Technology Curriculum that integrates technology into all content areas.
- Goal 5: Provide for the ongoing assessment of the technology skills expected of and demonstrated by students and instructional staff.
- Goal 6: Use technology to enhance communication within the district and with the public.
- Goal 7: Continue to develop and update policies governing the use and management of technology.
- Goal 8: Investigate educational structures and innovative strategies to optimize the use of technology to improve student achievement.
- Goal 9: Fund educational technology and evaluate its use and impact.

Appendix A includes charts that outline goals, objectives, specific outcomes, recommended actions/activities, assigned responsibilities, and data sources to measure progress. This plan will continue to be refined as necessary to ensure it remains a useful guide for using technology to improve student achievement and to assist FNSBSD to meet its primary performance goals.

A. Goals, Standards and Strategies for 2011-2014

A1.The district will set specific and measurable goals, aligned with state academic content and performance standards, for using advanced technology to improve student academic achievement.

Goal/Objective References	Appendices References
3.1, 3.2, 3.3, 3.4, 3.5 4.1, 4.2, 4.3, 4.4 8.1, 8.2, 8.3, 8.5	• Appendix A: Educational Technology Plan Goals and Objectives • Appendix B : Draft K-12 Technology Curriculum • Appendix C: K-12 Technology Curriculum Overview • Appendix D: AR 910-Appendix A Curriculum Management Model

Goals 3, 4, and 8 specifically address the use of technology to improve student academic achievement.

To improve student academic achievement, FNSBSD will integrate technology across all content areas during the curriculum development process. Curriculum development in all content areas is an ongoing process within FNSBSD. Normally, the district follows a six-year, four-phase curriculum review cycle to provide continual program planning and evaluation for each discipline. Curricular objectives are aligned to Alaska (AK) Content and Performance Standards. Additionally, FNSBSD will complete the development of the K-12 Technology curriculum, develop and provide a variety of high quality professional development opportunities (see sections D1, pg. 15 and D2 pg. 19), and investigate educational structures and innovative strategies to optimize the use of technology (see C2, pg. 11).

Curriculum Development: Technology Integration Across Content Areas

Progress to date: A revised science curriculum and core materials, aligned to AK State Content and Performance Standards, were adopted in March 2009. In the fall of 2009, training was provided to instructional staff to support the newly revised curriculum and the technology components of the adopted materials. In addition, a revised music curriculum, also aligned to AK State Content and Performance Standards, was adopted in March 2010. Instead of purchasing new K-6 materials, the district chose to update the technology package for these materials. Initial training was provided in fall 2010 with follow-up training offered in January 2011.

2011-2014: Using the Curriculum Management Model, the district will continue to work to develop, pilot, implement, monitor, and access curriculum development and implementation. Instructional Technology Teachers (ITTs) are an integral part of this process as members of the Leading and Learning Research class which initiates the revision cycle. Curriculum will be developed as follows: 2010-2011: language arts, 2012-2013: social studies and career technical education, 2013-2014: math and art, and 2014-2015: health and physical education. Throughout the curriculum revision process, the technology applications will be analyzed to confirm that skills and knowledge align with AK State Content Standards and Grade Level Expectations (GLEs). Model lessons that use technology to extend and reinforce core curricula will be developed. Finally, FNSBSD will continually review plans for infusing technology as a tool to increase learning opportunities. This process will set the standard for using technology to improve student achievement.

K-12 Technology Curriculum

Progress to date: The development of a K-8 Technology curriculum, based on the International Society for Technology in Education (ISTE) and AK State Content Standards, began in spring 2010. A committee comprised of classroom teachers and ITTs started the process. The Scope & Sequence at the elementary level focused on activities that support FNSBSD's core content by grade level. During fall of 2010, FNSBSD decided to further develop the draft K-8 Technology curriculum into a K-12 curriculum, ensuring a specific focus on digital citizenship at all levels. The secondary Scope & Sequence focuses on activities to support all content

areas as opposed to just a grade level focus. In order to develop activities to support this focus, content experts such as art teachers, English and math content coaches, and all ITTs became involved in the process.

At this time, a first draft of the K-12 Technology curriculum is ready to be shared with district teachers and administrators. Feedback will be requested at the April 22, 2011 early out teacher training day.

2011-2014: Over the summer of 2011, the K-12 Technology curriculum will be revised based on the feedback received in April. In fall 2011, a second draft will be reviewed by staff. By the end of fall 2011, the School Board will adopt the K-12 Technology curriculum that will infuse technology within all content areas. The curriculum will be comprised of two different sections: The Educational Objectives and the Scope and Sequence.

The Educational Objectives will be aligned to both the ISTE Nets-S and the Alaska Content Standards for Technology. The Educational Objectives will be further broken down into "I Can" statements. These clear statements will identify each step necessary to successfully meet that particular objective and will be written in student friendly language.

At each grade level, the Scope and Sequence will contain a series of activities and strategies, aligned to mastery of core objectives in the core curriculum guides for the most frequently used applications in the FNSBSD. Curriculum guides are aligned to the Alaska Grade Level Expectations. An example is outlined below.

5th Grade:

- Social Studies Mastery Core Objective: Identify and show an understanding of geographic regions of the United States as related to U.S. historical events (GY. B.1–8; GY.F.1–2, 6)
- Technology Scope and Sequence Activity:
    - Application: *Google Earth*
    - Activity: Use *Google Earth* to trace the pathway of explorers
- Science Mastery Core Objective: Identify the types of volcanoes and their main features. (AK GLEs [5] SD2.1, [5]SE1.1, [5] SF1.1-1.3
- Technology Scope and Sequence Activity:
    - Application: Presentation Tools
    - Activity: Build a presentation that identifies the types of volcanoes and their main features

By spring 2014, model lessons across content areas will be developed by ITTs and available for use by teachers and other instructional staff. Professional development to support the implementation of the K-12 Technology curriculum will have been provided. Making technology an essential component of instruction will allow students to be more fully engaged in the learning process.

Innovative Technologies and Professional Development

See C2, pg. 11; D1, pg. 15; and D2, pg. 19.

A2. The district will develop strategies for improving academic achievement and technology literacy of all students.

Goal/Objective References	Appendices References
3.1, 3.2, 3.3, 3.4, 3.5 4.1, 4.2, 4.4 5.1, 8.3	Appendix E: *MY Access!* Writing Improvement Program 2009-2010 Pilot Project Evaluation Summary

As in the past, FNSBSD will continue to use a wide range of strategies to support and improve academic achievement and technology literacy for all students, including the implementation of the K-12 Technology

curriculum. In addition, during the 2010-2011 school year, FNSBD will pilot the use of Learning.com to assess technology literacy of students in grades five and eight. Further, over the next three years, FNSBSD will continuously evaluate the impact of existing district technology programs and technology skills assessment(s) on student achievement using Learning.com or other assessment tools as appropriate.

Technology to Support and Improve Academic Achievement

Progress to date: Tier 2 Interventions: During the 2010-2011 school year, two computer-based reading intervention programs were purchased for K-6 students: *Read Naturally* and *Earobics: Foundations, Connections, and Reach*. Two computer-based math intervention programs for K-6 students were also purchased: *Pinpoint* and *Number Worlds*. These programs provide district teachers and paraprofessionals greater access to educational technology that enhances student learning.

AIMSweb: *AIMSweb* is an online benchmark and progress monitoring system based on direct, frequent and continuous student assessment. The results can be shared with students, parents, teachers and administrators via a web-based data management and reporting system to determine response to intervention. The district began using *AIMSweb* as a key component of initiating a Response to Intervention (RTI) framework in the 2009-10 school year, with universal screenings of all students K-8 in both reading and math.

MY Access!: In 2009-2010, the district began piloting *MY Access!*, an online writing program that provides feedback for students in the six writing traits. Twenty-four (24) teachers in grades 4-8 and approximately 1,000 students are currently using the program. An evaluation of the 2009-2010 data was completed by the FNSBSD Research & Accountability Department. Findings showed that "more than 80% of students using *MY Access!* at each grade level either maintained or increased their writing proficiency levels from the prior year."

***Grade Cam*:** This formative assessment program is in its first pilot year. Sixteen teachers have received initial and follow-up training. Formative assessments that support *Everyday Math*, the K-6 adopted math program, have been developed for *Grade Cam* use.

Scantrons: A mid-year *Everyday Math* assessment was developed in 2010 using the Scantron format. This formative assessment is required of all students in grades 3-6. Results are compiled at the district level as a feedback tool for professional development. Building, grade level, and classroom results provide disaggregated data to support professional development or modification of instruction to support student learning. Also, all Algebra I students are summatively assessed at the end of each semester using the Scantron format.

***PLATO*:** In 2009-2010, the district received a Department of Defense Education Activity (DODEA) grant to support equitable access to instruction. *PLATO*, a web-based academic program, was implemented as both a credit recovery and a remedial option in all core areas for middle and high schools. In addition, it was also used as an intervention at three elementary schools.

***Bridge to Algebra*:** The DODEA grant also funds a web-based resource titled *Bridge to Algebra*. This program is geared toward high school students who need extra support and remediation for Algebra I.

Kids Voting Alaska: This online voting program was developed by the district to support the adopted social studies curriculum. Training is provided to teachers and PTA members every two years in the use of this program.

***Thinking Maps*:** The district adopted *Thinking Maps*, which can be developed manually or electronically, as a strategy to support student achievement. *Thinking Maps* supports the brain's natural tendency to detect patterns, thereby enabling all students to organize and process information, develop cognitive skills, and integrate knowledge. Teachers utilize the Maps to differentiate instruction for skill levels, language proficiency, and

learning styles of students, as well as to develop critical thinking skills. Currently, the district has approximately 50 teachers who are *Thinking Maps* trainers.

***Geometer's SketchPad*:** This dynamic construction and exploration tool adds a powerful dimension to the study of mathematics. Younger students develop the solid foundation they need for more advanced mathematical studies, and older students clarify their understanding of abstract concepts in algebra, geometry, and calculus. During fall 2010, the district upgraded all licenses across the district.

SmartBoards: FNSBSD has purchased over 250 SmartBoards that are in use in 25 different schools. A variety of SmartBoard trainings have taken place districtwide. However, no consistent plan has been in place to provide teachers the support they need to effectively integrate them into their instruction. FNSBSD has experienced a variety of problems related to firmware, software, Senteo clickers, and inadequate professional development.

To help alleviate this problem, the Curriculum Department purchased Smart Notebook Galleries from Aegom Interactive to pilot at Woodriver Elementary, a school with SmartBoards in every classroom. At the beginning of the year, a pre-assessment survey was given to teachers that asked them to self-evaluate their skills. The survey will be administered as a post-assessment at the end of the year. In addition, a SmartBoard trainer is coming to Fairbanks the end of April to provide training to the ITTs and classroom teachers. A SmartBoard standard has been developed with input from the Curriculum Department, Network Services, and Facilities Maintenance.

***PowerSchool Premier* and At-Risk Students:** This web-based student information system supports increased communication between parents, teachers, and students. It also provides the opportunity to analyze data, including grades and attendance, to identify "at-risk" students.

In the 2009-10 school year, students were targeted for Graduation Success Program (GSP) services based on a risk model designed by Dr. Ellis Ott, the district's Research Associate and Accountability Coordinator. The model was based on statistical analysis of six years of FNSBSD student data. To facilitate data-driven decisions in the implementation of the GSP, Dr. Ott calculated risk levels for all students to identify those students most at risk of dropping out of school. Students were grouped into high, medium, and low risk categories based primarily on data from the 2008-09 school year. These data included attendance rates, grades, transfers between schools, dropout behavior, out-of-school suspensions, and Standards Based Assessment scores in reading, writing, math, and science. For the first time, schools were provided with standardized criteria for identifying the students most likely to drop out and thus most likely to benefit from the GSP program. Prior to this, students were targeted for service on the basis of teacher and administrative referrals and a wide variety of academic and non-academic criteria. In 2009-10, schools were required to serve all high risk students before serving any medium risk students and were instructed not to serve low risk students. This innovative risk model was developed using data from *PowerSchool Premier*. *PowerSchool Premier* is also the tool used to "tag" the risk level of students as well as the repository of graduation success coaches (GSC) activity logs maintained for each targeted at risk student. Teachers, counselors, and GSC use *PowerSchool Premier* to access these "tags" and logs.

Although due to budget cuts in FY12, the Graduation Success Program will no longer exist, the district will continue to utilize the identification tools in *PowerSchool Premier* to target and serve at-risk students.

Library Support: Library Media Services (LMS) purchased circulation computers for all district libraries. Library staff were trained on setting up web pages and created a Weebly site to disseminate information for school newsletters. PebbleGo, a K-3 online science database, is currently being piloted at seven schools. LMS has added World Book Online features, AP images, TumbleReadables, and TeachingBooks.net to the district online resources. eBooks are also being added to the district library collections. Monthly training, which

includes a technology component, is provided to library staff.

2011-2014: The Curriculum Department will continue to provide professional development to support the usage of SmartBoards through model lessons for teachers developed by ITTs, credit courses and workshops. Network Services has added firmware updates to its summer maintenance schedule. The Aegom SmartBoard pilot will continue at Woodriver. In addition, more training on the use of Senteo clickers for formative assessments will occur.

The district plans to continue using *AIMSweb* for universal screening of K-8 students in reading and math. Over the next three years, the district will begin universal screenings in writing and progress monitoring in all subjects for students in tiered interventions. The district will investigate the use of the new *AIMSweb* behavior module designed specifically for Response to Intervention (RTI) and positive behavior support programs in grades K-12.

FNSBSD is currently exploring the use of two of Learning.com's technology assessments: 21st Century Skills Assessment for Students and Way Find teacher assessment. Both of these assessments provide psychometrically valid data on how well students grasp critical 21st century skills and how well teachers can use technology. During spring 2011, ITTs, teachers, and students at Ryan Middle School and University Park Elementary will be assessed. By assessing students at the 6th grade level, the district will be able to check student proficiencies to determine if they are on track to achieve proficiency by 8th grade or if instructional gaps exist that need to be addressed in grades 6-8.

Assessing teachers will allow the district to identify proficiencies teachers possess and those they lack. This information will guide professional development plans for teachers and instructional staff. If the Learning.com pilot is successful, the district will be able to provide required reporting of 8th grade technology proficiencies to the Department of Education and Early Development (DEED) as well as support teachers' instructional practices based on assessment data. If Learning.com is unable to meet the district's needs, FNSBSD will pilot other assessments to ensure that 8th grade student as well as teacher technology proficiencies are reported to DEED in an accurate and timely manner.

Further, FNSBSD will develop guidelines to evaluate the impact of existing district technology programs and assessments on student achievement. Annually, the reliability and validity of technology skills assessments will be evaluated by the district's' Research and Accountability Department to ensure they are aligned with the K-12 Technology curriculum and State technology standards. The Educational Technology Plan team will review results to determine if investments in time and resources are making a difference in the classroom and on student achievement. Programs that are successful will be continued; those that are not will either be retooled or discontinued.

A3. The district will develop a strategy for using information technology and telecommunication to improve education.

Goal/Objective References	Appendices References
1.1, 9.1, 9.2	Appendix F : FNSBSD Wide Area Network Appendix G: 2010-2011 Budget Inventory Analysis

E-rate and other funding sources have and will continue to be used to improve education through information technology and telecommunications.

E-Rate Funding

Progress to date: The E-Rate funding cycle, commencing in July 2010, made significant improvements to the Wide Area Network (WAN) and Internet accessibility. See C1 (pg. 9) for additional information.

2011-2014: As technology becomes more powerful, FNSBSD bandwidth needs will increase. Quarterly, FNSBSD will evaluate practical WAN utilization at all facilities to determine if upgrades are needed. When appropriate, E-rate funding will continue to be used to address these needs. Traditionally, the use of E-rate funding has been limited to the categories of telecommunication services and Internet access. While this usage has benefited the district in the past, FNSBSD must determine if E-rate funding is being utilized to the full extent allowable to support educational technology needs. This determination will be based on targeted quarterly discussions aimed at ensuring full coordination of technology funding to maximize and leverage resources. See E1 (pg. 19) for additional information.

B. Technology Integration (All required for Title IID)

The district will use curricula and teaching strategies that integrate technology effectively leading to improvements in student academic achievement that are:

B1. The curricula and strategies for technology integration are based on a review of relevant research.

Goal/Objective References	Appendices References
3.1, 3.2, 3.3, 3.4 4.1	• Appendix D: AR 910-Appendix A Curriculum Management Model • Appendix H: Research-Based Practices in Technology • Appendix I: Instructional Technology Teachers, FNSBSD JOB DESCRIPTION: ITT

FNSBSD uses research-based materials, professional development, strategies, and tools that support the use of technology to enhance student learning, engagement, and motivation.

Research-based Materials, Professional Development, Strategies, and Tools

Progress to date: All adopted curricular materials are research-based, including the use of technology within the materials. The technology support provided by publishers is carefully reviewed and considered during the materials adoption process.

Professional development to support the effective use of technology is also research-based. ITTs have been integral in supporting teachers in the integration of technology into curriculum and instruction. This embedded professional development model is proving to be effective. ITTs were also present when publishers showcased new technology materials during adoption of the science and music curriculum. In addition, ITTs provided follow up training during the October 2009 Districtwide Inservice for science and were present at all the trainings for the materials FNSBSD adopted for RTI Tier II interventions. In January 2011, ITTs were moved to the Curriculum Department to strengthen the connection between curriculum, instruction, and technology.

Further, FNSBSD has provided research-based professional development to teachers on the following instructional strategies identified in *Classroom Instruction that Works*, by Marzano, Pickering, and Pollock[1]:

- Identifying Similarities and Differences
- Nonlinguistic Representations
- Summarizing and Note Taking
- Setting Objectives and Providing Feedback
- Reinforcing Effort and Providing Recognition
- Generating and Testing Hypotheses
- Homework and Practice

[1] Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works.* Alexandria, VA: ASCD.
Office of Educational Technology. (2010, March 5). *Transforming American education: learning powered by technology* [Pamphlet].

- Cues, Questions, and Advanced Organizers
- Cooperative Learning

Using Technology with Classroom Instruction that Works, the companion book by Pitler, Hubbell, Kuhn, and Malenoski, ITTs guide teachers' integration of technology into teaching strategies. "Applied effectively, technology implementation not only increases student learning, understanding, and achievement but also augments motivation to learn, encourages collaborative learning, and supports the development of critical thinking and problem solving skills." [2]

Technology will also be used to help students develop 21st century skills. "Today's education system faces irrelevance unless we bridge the gap between how students live and how they learn. Schools are struggling to keep pace with the astonishing rate of change in students' lives outside of school. Students will spend their adult lives in a multitasking, multifaceted, technology-driven, diverse, vibrant world and they must arrive equipped to do so"[3]. To support the development of 21st century skills for students, FNSBSD is incorporating the following six elements outlined in *Learning for the 21st Century School* into current practices*:*

- Emphasize core subjects
- Emphasize learning skills
- Use 21st century tools to develop learning skills
- Teach and learn in a 21st century context
- Teach and learn in a 21st century content
- Use 21st century assessments that measure 21st century skills

Research supports that technologically savvy teachers are more likely to use technology in everyday classroom instruction. As such, teachers have been provided with a variety of technology tools, including laptops and projectors, along with professional development and support. Other technology tools are available to teachers depending on the building: whiteboards, clickers, flip cameras, and a variety of handheld tools (GPS, iTouch, and iPad). ITTs provide ongoing support, and specific trainings have been provided through Apple trainers, credit courses, and workshops. "Technology tools must be leveraged to make transformations in the learning environment. Aside from technology's power to engage students, it can help educators tailor instruction for different students, targeting individual students' needs and accommodating their learning styles as much as possible."[4]

2011-2014: FNSBSD will continue to stay abreast of current research that supports the use of teaching strategies, tools, professional development, and materials to support and improve student academic achievement.

B2. The curricula and strategies for technology integration are aligned to the Alaska Content and Performance Standards

Goal/Objective References	Appendices References
3.1, 3.2, 3.3, 4.1, 4.3	Appendix D: AR 910-Appendix A Curriculum Management Model

[2] Pitler, H., Hubbell, E. R., Kuhn, M., & Malenoski, K. (2007). *Using technology with classroom instruction that works*. Alexandria, VA: ASCD

[3] Partnership for 21st Century Skills. (2003, July). *Learning for the 21st century school: a report and mile guide for 21st century skills* [White paper]. Retrieved March 2, 2011, from http://www.medialit.org/reading-room/learning-21st-century

[4] Group, M. (n.d.). Technology in schools what the research says: white paper. *The Journal*. Retrieved from http://thejournal.com/whitepapers/2010/11/cisco_10a_technology_schools_research/asset.aspx?tc=assetpg

All FNSBSD core curricular objectives are aligned to Alaska Content and GLEs. When the district's K-12 Technology curriculum is finalized, it will not only be aligned to Alaska Content Standards, but to ISTE standards as well. See A1 (pg. 2) for additional information.

B3. The curricula and strategies for technology integration lead to improvements in academic achievement

Goal/Objective References	Appendices References
3.1, 3.2, 3.3, 3.4, 4.1, 4.2	N/A

Progress to date: The draft K-12 Technology Curriculum supports all content areas. Scope and Sequence activities are aligned to FNSBSD curricular objectives. Further, *My Access!*, *GradeCam*, and Scantron data from districtwide math assessments (grades 3-6 and Algebra I) provide disaggregated information on student proficiency. This resulting data has been analyzed in order to provide differentiated instruction for students and professional development for teachers. Finally, some teachers have been trained and are using Alaska Computerized Formative Assessments (ACFA).

2011-2014: FNSBSD will continue to use *My Access!* and *GradeCam*, and will expand the use of Scantrons to all secondary schools in math and other content areas. Further systematic training on AK Computerized Formative Assessments will be planned. Finally, FNSBSD will continue to explore use of the Residual Analysis Tool provided by the DEED Assessment, Accountability and Student Information Department.

B4. The Fairbanks North Star Borough School District curricula and strategies for technology integration will follow a time line.

Progress to date: The district has adopted a Curriculum Management Model (Administrative Regulation 910) to ensure a systematic plan for reviewing curriculum and providing targeted professional development to support each content area. With any new adoption of materials, training and follow up is provided on the relevant technology components.

Goal/Objective References	Appendices References
3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3	Appendix D: AR 910-Appendix A Curriculum Management Model

2011-2014: As outlined in A1 (pg. 2), technology integration is an integral part of the curriculum development process. Appendix D provides a timeline for the district's curriculum revision cycle. The district continues to support professional development in all content areas through districtwide inservices, early outs, professional learning communities (PLC) meetings, monthly library meetings, UAF credit classes and workshops (see D1: Table 3, pg. 18).

C. Access (All Part C is <u>required info</u> for Title IID)

C1. Fairbanks North Star Borough School District will ensure all students and teachers have increased access to educational technology in all schools.

Goal/Objective References	Appendices References
1.1, 1.3, 2.1, 2.2, 2.3, 2.4, 9.3	Appendix F : FNSBSD Wide Area Network

Over the last several years, Title IID funds have steadily declined. The district currently receives less than $20,000 from this funding source. Title IID funds alone are not sufficient for all the educational technology purchases needed to increase access at all schools. Therefore, other funding sources, including E-rate, ARRA, and operating funds, are being used to support this effort.

Students enrolled in Title I schools have equal, and at times greater, access to educational technology due to the supplemental nature of the funding. Funds allow for the purchase of additional computers, and in some cases, iPod Touches. There are four Title I elementary schools in school improvement status: Denali, Nordale, Joy, and Anne Wien.

Wide Area Network (WAN) and Internet Accessibility

Progress to date: The district has kept the connectivity of schools updated. E-Rate funding, which reimburses the district 60% of the connection cost, has provided the district an opportunity to improve broadband capabilities at schools without access to fiber optics. Since 2008, the district has upgraded eighteen schools to a fiber optic ring running at 10 GB speeds with 1 GB available at each school. Seventeen schools have been upgraded to Metro Ethernet with speeds ranging from 6 MB to 100 MB. Fiber or Metro Ethernet have replaced all T-1's and the microwave. The future plan is to transition schools from Metro Ethernet to the fiber ring as fiber becomes available. Local area networks and wireless connections continue to be upgraded. In 2010, ARRA Impact Aid Construction funds were used to purchase wireless access points and controllers for all sites. By the end of the 2010-2011 school year, this equipment will be fully installed.

2011-2014: The FNSBSD network administrator is currently charged with establishing a districtwide Wide Area Network standard for schools and evaluating practical WAN usage at all facilities to see if an upgrade is needed. WAN usage at schools will be evaluated quarterly. If telecom vendors provide Internet access to the area and a WAN upgrade is warranted, the network administrator will evaluate the possible upgrades available, make a decision on whether an upgrade can take place, and purchase hardware to connect the school to the fiber. If a school is a candidate for WAN upgrade, the district will lease high-speed circuits from telecom vendors and may upgrade the school's router to take full advantage of the new circuit. The cost of the WAN connection may vary between $500 and $4,000 per month depending on the school's location. There are currently 50 total routers in the district. When needed, router upgrades are estimated at $7,000 each.

Hardware and Software

Progress to date: To increase access to technology, in 2008-2009, the Curriculum Department purchased approximately $45,000 of technology equipment and training for teachers and staff across the district. iPod Touches, GPS units, Smart Boards, Flip video cameras, Clickers, Mobis, document cameras, and laptops were purchased. Many of these items are available in classroom sets for check out.

The ARRA Stabilization grant funded upgrades for Apple and Dell computers in all schools. Over the two year funding period (2009-2011), 646 iMacs, 721 Mac Books, and 482 Dell computers were purchased as well as 21 storage carts. In addition, 226 iPads and 267 iPod Touches as well as three storage carts and eight storage cases were purchased. ARRA funds also supported the purchase of seven projectors and 30 digital cameras.

Title IID funds were used to purchase a license for *Atomic Learning*, while Title IID ARRA funds were used to purchase computers, iPods, iPads, and supporting peripherals. *Everyday Math* apps were also purchased to support professional development.

In 2009-2010, Library Media Services (LMS) provided new printers to all nineteen elementary school libraries. The printers were intended to increase opportunities to print items for librarians, students, and teachers in a timely fashion. In 2009, LMS also purchased 4 Kindles and 2 iPads for librarians and library associates to borrow in order to investigate the feasibility of using eBooks and eReaders.

2011-2014: To further ensure that teachers and students throughout the district have equitable access to hardware, a baseline minimum hardware standard will be developed for all classrooms and libraries. By the end of the 2011-2012 school year, principals, ITTs, and the directors of the Technology, Accounting, Library Media Services, and Curriculum departments will develop this standard. This hardware standard will be evaluated

annually thereafter and equipment levels will be adjusted as needed. Once new hardware is installed, teachers and instructional staff will be provided training on its use.

Operating systems across the district will be standardized. Finding operating systems for very old computers has been a problem for the FNSBSD, costing up to $50,000 a year and countless hours of wasted time and frustration. Once all schools reach a baseline minimum standard for computers, this problem will be alleviated since up-to-date operating systems are frequently installed on newly purchased computers. The directors of Technology and Curriculum and the elementary curriculum coordinator will determine which computers need operating system upgrades, make sure any new operating system is compatible with the district standard software, and install new operating systems on computers as needed. Operating system standards will be reviewed at least annually and on an ongoing basis.

Hardware and software replacement will be the focus of a new FNSBSD technology sustainability plan that will be in place by May 2014. Analysis and research will be completed on hardware lease versus purchase. A determination will be made on the ideal cyclical time-frame for replacement. Directors of Technology, Curriculum, and Library Media Services as well as the chief financial officer and elementary curriculum coordinator will all contribute to this sustainability plan. This plan will keep access to technology consistent across the district.

C2. Fairbanks North Star Borough School District will encourage the development and use of innovative delivery strategies through the use of technology.

Goal/Objective References	Appendices References
8.1, 8.2, 8.3, 8.4, 8.5	N/A

From pursuits that are routine to those that are novel, today's youth are accustomed to using technology in their everyday lives. To engage students more fully, educational technology is a must. Engaging classrooms are those where instruction is differentiated and students and teachers have access to current technology and its applications. As new technologies emerge to support teaching and learning, FNSBSD must keep pace. The district must position itself to develop policies and utilize technologies that do not currently exist. Further, as online learning opportunities continue to expand, FNSBSD must be prepared to create hybrids of online and traditional brick and mortar structures that merge seamlessly in order to meet a variety of student needs both on and off campus. Over the next three years, FNSBSD will be challenged with maintaining the integrity of the current educational structure while investigating new structures and innovative strategies to optimize the use of technology to improve student achievement.

Software/Web-based Applications

Progress to date: ReadyTalk and Skype, web and audio conferencing tools, have been utilized across the district to support meetings and collaboration among teachers, staff, and students. They are primarily used to allow participation of teachers in professional development when they cannot be at the presentation location. For example, a small number of teachers were able to use ReadyTalk for a common assessment class, and Skype was used during the development of the elementary language arts curriculum. Skype has also been used to connect classrooms to virtual field trips with other locations within Alaska as well as in Hawaii and Mississippi.

Additionally, a variety of professional development webinars have been offered to support teachers and staff in the district, including webinars from Alaska Staff Development Network (ASDN) , Solution Tree, and National Council of Teachers of Mathematics (NCTM). Subject matter experts presented the most recent information on areas of interest, including RTI and differentiated instruction, common assessments, professional learning communities, literacy, classroom management, and student engagement. By using webinars, teachers benefit

from easy access to research-based strategies as well as from networking with their colleagues in other parts of Alaska. Principals use webinar recordings for additional professional development in their buildings and for content conversations during Professional Learning Communities. As a member of ASDN, the district has access to many webinar recordings, which makes webinars an easy and low-cost solution to sustaining teachers' professional development.

2011-2014: FNSBSD will continue to use the software/web-based applications identified above.

Distance Learning Activities

Progress to date: To provide options for the delivery of specialized courses, West Valley and Hutchison High schools both received grants to install distance delivery classrooms, which will be completed in summer 2011. Four of five high schools in Fairbanks will then have distance delivery capabilities. This will provide the opportunity for courses offered at one building to also be offered at another building.

2011-2014: FNSBSD will increase opportunities for students to participate in distance learning activities. Not all high schools have the equipment necessary to offer distance delivery courses via video, therefore, funding will be sought to address this inequity. Concurrently, beginning in summer 2011, high school students will have the opportunity to participate in online courses for enrichment and credit recovery. The district will also pilot a diagnostic course for credit recovery. Over the next three years, classes delivered by distance learning will be expanded if appropriate. As distance learning activities are expanded, professional development for staff will be offered as necessary.

Educational Structures: Brick and Mortar and Beyond

Progress to date: FNSBSD offers distance education classes through the Fairbanks B.E.S.T. (Building Educational Success Together) program. Fairbanks B.E.S.T. allows students throughout the Fairbanks North Star Borough School District to learn from the comfort of their own home. The goal is to provide flexible options for students throughout the district, so they can learn their way, on their schedule.

2011-2014: A team of district administrators will begin the process of investigating and developing districtwide educational structures to optimize the use of technology to improve student achievement. The team will begin by evaluating needs and gaps in existing traditional brick and mortar structures. Negotiated agreements as well as policies and administrative regulations related to grading, attendance, and highly qualified status will be examined. Changes may be needed to support new structures, including hybrids of online learning combined with traditional classroom models. By 2014, FNSBSD will have identified needs and gaps and will have a plan that outlines proposed structural changes to meet a variety of student learning needs and improve student achievement.

Innovative Opportunities

Progress to date: FNSBSD has long been a leader in innovative practices (see A2: *PowerSchool Premier*, pg. 5). Other innovative activities include Skype for virtual field trips, online collaboration activities with schools around the world, and iPads and iPods for classroom instruction.

2011-2014: FNSBSD will build on the culture of innovation that exists within the district. Departments will work together to research and discuss innovative practices. District personnel will attend national and state curricular and technology conferences as one method to stay abreast of innovative technology practices. Further, FNSBSD will investigate the use of Web 2.0 tools such as Google Docs, Wikis, and blogs and update the associated policies that support technology-infused instruction. During quarterly Educational Technology Plan team meetings, researched innovations will be shared with the group. The ETP team will determine, based on newly established evaluation guidelines, which new technologies will be piloted. By May 2014, the district

will have explored, discussed, and piloted new innovations and have a framework for infusing emerging technologies into instruction and learning.

Evaluation

Progress to date: In spring of 2010, Dr. Ellis Ott analyzed grades 3-6 *Everyday Math* scores to determine a score that would predict student proficiency in math on the SBAs. Scantrons were used to aggregate the districtwide scores. The *Everyday Math* program also includes software, *Teacher Assessment Assistant,* that allows teachers to develop formative and summative assessments and provide differentiation for students. *MY Access!* and *Grade Cam* are also used to disaggregate data to support achievement.

2011-2014: The district's Research and Accountability Department will work with the executive directors of Curriculum, Special Education, and Alternative Instruction and Accountability, as well as the assistant superintendents and chief financial officer, to develop evaluation guidelines for existing technology programs as well as technology skills assessments. Technology programs and technology skills assessments will be evaluated to determine their impact on student achievement. Existing programs that prove to be effective will be continued, and if feasible, expanded. On an ongoing basis, the Educational Technology Plan team will review the relationship between assessed technology skills and student achievement. If necessary, the K-12 Technology curriculum will be revised to increase its effectiveness.

C3. Fairbanks North Star Borough School District will ensure effective use of technology to promote parental involvement and increase parent communication.

Goal/Objective References	Appendices References
6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7	N/A

PowerSchool Premier

Progress to date: *PowerSchool Premier* is a web-based student information system used to increase communication with parents about their child's academic progress. Parents are able to view their child's grades and attendance and request automatic grades and attendance notifications. They also have access to class assignments, transcripts, and school bulletins. *PowerSchool Premier* provides alerts and links to surveys and opinion polls and allows parents an opportunity to offer input for teacher evaluations. This system currently records more than 5,000 unique logins per day.

2011-2014: The directors of Public Relations and Information Systems and principals, with assistance from the Research and Accountability Department, will evaluate and expand the use of *PowerSchool Premier* as an effective tool for parent communication. Parents will be surveyed in August 2011, and annually thereafter, to establish a baseline and to measure *PowerSchool Premier* usage satisfaction. Based on results, parents may be offered training to more effectively use *PowerSchool Premier*. Trainings would be offered at open houses, PTA meetings or parent teacher conferences. Survey results might also point to the need for content improvements to *PowerSchool Premier*. Through this process, the district will determine the feasibility of establishing *PowerSchool Premier* as the primary repository for district/school to parent communication during a crisis event. By August 2012, the district will use *PowerSchool Premier* or another tool as the primary repository for district/school to parent crisis communication. By 2014, parent satisfaction will increase by 30% as measured by comparing the annual survey with baseline results.

Zoomerang

Progress to date: The district has used *Zoomerang*, an online survey software tool, to conduct online surveys of parents. One survey conducted in the spring of every even year is the Parent Opinion Poll. Every parent in the district is asked about academic content areas, communication, student expectations and preparations, student support, school climate, and secondary reform initiatives. Parents then give each school an overall

grade. This information is used to address parent concerns and building level issues such as parking lot improvements, communications, and classroom needs.

2011-2014: FNSBSD will continue to use *Zoomerang* to collect information from parents.

ConnectEd

Progress to date: *ConnectEd* is an automated notification system used by the district for parent notification during emergency crises (i.e. lock downs, road conditions), attendance, and for general outreach. While *ConnectEd* can engage via voice, text, email, and social media, FNSBSD currently uses only voice and e-mail for emergency communications.

2011-2014: By August 2012, the district will deploy the voluntary use of text message emergency alerts for parents through *ConnectEd*.

General and Electronic Communication

Progress to date: Secondary schools provide parents with daily electronic announcements that detail specific daily events as well as general information and calendaring for parents and students. Monthly newsletters are also distributed electronically to parents.

In addition, there is a plethora of multimedia resources available to parents on the district's website. Both parent and student information are listed as items on the district's homepage, www.k12northstar.org. Parents can find information on high school graduation, special student services, student testing, and much more. There is an interactive bus route map, a *PowerSchool Premier* portal, and online cafeteria account information. Students (and their parents) can find online library resources, transcript information, HSGQE resources, and links to the *Earobics* interventions for home support.

Finally, General Communications Incorporated (GCI) provides a public access television channel for district use, where board meetings, district news, and other important announcements are broadcast.

2011-2014: FNSBSD will expand current strategies to promote parental involvement and increase communication in the following ways:

Contact Information**:** FNSBSD will review current parent contact methods to identify and adopt the best way to keep parent contact information current. By August 2012, the district will implement a method to update parent contact information electronically.

Feedback: FNSBSD will establish a process to continually collect feedback on districtwide communication methods and content. By August 2012, the directors of Public Relations and Information Systems will develop and implement a process to collect community feedback through existing technologies such as *PowerSchool Premier* and the district's website.

Communication Guide: By August 2011, with input and approval from the FNSBSD management team, the director of Public Relations will develop and disseminate a guide that outlines best practices for disseminating information. This guide will set the standard for internal and external communication by principals and district administrators.

Social Media: FNSBSD will form a committee to examine the practical application of using Facebook, LinkedIn, and other social media venues to enhance communication. By January 2012, a social media policy recommendation will be presented to the School Board.

Training: On an ongoing basis, FNSBSD will provide technology training to parents to access school information and to support student learning. Federal Programs, Library Media Services, Special Education, Information Systems, ITTs and the RTI coordinator will provide trainings on topics such as accessing and using *PowerSchool Premier*, *Atomic Learning*, *Earobics*, *Leveled Literacy*, *Read Naturally*, and online resources. This will help families provide educational support to their students outside of regular school hours.

C4. Fairbanks North Star Borough School District will describe how its schools will develop technology-based programs in collaboration with adult literacy services.

Adult Learning Programs of Alaska (ALPA) and Literacy Council of Alaska (LCA) are the two primary agencies in the Fairbanks North Star Borough School District that provide adult literacy services. FNSBSD has collaborated with these agencies on various projects such as Even Start.

Adult Learning Programs of Alaska serves interior Alaska as the Regional Adult Basic Education Program. Classes to increase basic skills in reading, writing and math are offered on a regular schedule. They also serve as the Regional Testing Center for the General Educational Development (GED). Their Adult Basic Education classes help prepare students for the GED tests as well as employment and post-secondary education. Adult Learning Programs of Alaska also offers affordable, introductory computer classes that include Introduction to Computers, Introduction to Word, and Introduction to Excel, Word Part II, Excel Part II, and QuickBooks 2010.

Literacy Council of Alaska provides tutoring for adults in basic reading, writing, and English as a second language; school age tutoring; family literacy programs; and computer literacy lab. LCA is also a Community Microsoft Authorized Refurbisher (MAR). As a Community MAR, LCA has the privilege of installing Microsoft 2000 or XP on used computers to be given away to low income Alaskans and non-profits that would not otherwise have access to such technology. Basic computer training classes and tutoring are offered for those who receive a refurbished computer.

ALPA and LCA will meet with the district's Educational Technology Plan team at least twice a year to discuss possible collaborative opportunities to enhance communitywide adult literacy services. Discussion topics may include the following: effective use of distance delivery technologies, effective use of social media, best practices for website development, use of computers versus iPads, and incorporating technology into the Guys & Gals Read Program.

D. Professional Development

D1. The district will provide ongoing, sustainable professional development for teachers, principals, administrators, and school library media personnel to further the effective use of technology in the classroom or library media center.

Goal/Objective References	Appendices References
3.1, 3.2, 3.3, 3.4,3.5 4.2, 4.3, 4.4 5.2, 5.3	Appendix J: Fairbanks Technology & Learning Conference, May 22, 2008 Appendix K: MayMixer, May 20, 2010 Appendix L: *Zoomerang* Professional Development Needs Assessment 2010-2013 Appendix M: Instructional Technology "NEEDS ASSESSMENT SURVEY"-December 2009 Appendix N: 2011-2012 FNSBSD Academic Calendar Appendix O: Curriculum Cycle Technology Professional Development

High quality professional development that includes continued time and effort to learn, maintain, and improve technology skills is essential. As such, FNSBSD will provide ongoing, robust, high quality professional development for teachers, principals, administrators, school library media personnel, and other instructional staff to further the effective use of technology in the classroom to increase student academic achievement.

Progress to date:

Credit classes offered through University of Alaska Fairbanks

Each year, teachers, principals, and other administrators have several opportunities to enhance their technology skills through UAF credit classes. Classes support knowledge of technology and its effective implementation in classroom instruction. The following technology classes were offered for college credit from 2008 to 2011:

Table 1: UAF Credit Classes 2008-2011		
6/1/2008-5/31/2009	**6/1/2009-5/31/2010**	**6/1/2010-5/31/2011**
Using SmartBoards in the Classroom	Using SmartBoards in the Classroom	May Mixer 2010
Using iMovie 09 in the Classroom	Using iMovie 09 in the Social Studies Classroom	iMovie 09 for Educators
Seminar in Technology (offered twice)	Introduction to Adobe Photoshop	Improve Instruction with the SmartBoards (offered twice)
Apple's iSuite: Using the Technology tools in your MacBook	iLife 09: Using the tools in your MacBook	
	Movie Making with iMovie 09	

Technology Inservices

At the end of the 2007-2008 and 2009-2010 school years, teachers and other staff members were able to select from a wide variety of technology workshops, focusing on implementation of technology in teachers' instructional strategies. Workshops covered technology integration in all core content areas and all grade levels. These MayMixers will continue to be offered by the district's professional developers on an annual basis. In addition, the district schedules five early outs each year to provide a 90 minute professional development activity with a districtwide theme to all staff within their building. As shown in Table 2, ITTs and other trained staff have led a variety of technology focused activities as a part of these early outs.

Table 2: Technology-Focused Professional Development for Early Outs provided by Instructional Technology Teachers		
2008-2009	2009-2010	2010-2011
Atomic Learning	Power Teacher and Websites	GoogleDocs
Site-Based: Websites, Word/Power Point, Video Resources, SMART Boards, Clickers, Document cameras	*Atomic Learning*	K-12 Technology Curriculum, *Atomic Learning*
Site-Based: iMovie, iCal, Websites, Word/Power Point, Video Resources, SMART Boards, Clickers, Document cameras		
Atomic Learning		

Atomic Learning

Atomic Learning was introduced in 2008 and is available to all school district staff, students, and parents to learn new technology skills or expand existing ones. It provides individual professional development via short video sessions that guide users through each learning process. Examples of tutorial lessons include *Microsoft Office, Comic Life, Google Docs*, and *Google Earth*.

Zoomerang Surveys of Professional Development Needs

A professional development needs assessment survey was administered in February and March 2009 to all certified regular and special education teachers, principals, and library media specialists. Its purpose was to collect information to determine the design of the professional development plan for 2009-2012. One section of the survey focused on teachers' technology needs and identified the following target areas for professional development: use of SmartBoards, Apple applications, Web 2.0 tools (e.g., blogging, podcasting, wikis), and Google applications. Credit classes, MayMixer workshops and individual sessions provided by ITTs met these needs. In addition, the Instructional Technology Department administered a survey in December of 2009 designed specifically to guide ITTs in integrating technology tools for everyday usage into teacher training.

2011-2014: Professional development will continue to be offered through a variety of means, including on-site support by ITTs and content coaches, UAF credit courses, technology inservices, districtwide inservices, early outs, professional learning community meetings, librarian meetings, webinars and *Atomic Learning*.

Atomic Learning is a valuable tool that is currently being under-utilized. The professional development coordinator, elementary curriculum coordinator, and ITTs as well as the directors of Information Systems, Technology, and Library Media Services will promote and evaluate the use of *Atomic Learning*. By spring 2012, and annually thereafter, reports that capture usage data will be evaluated, and staff will be surveyed on their use of *Atomic Learning*. Based on identified needs, and in an effort to improve access and usage, training will be provided to teachers, instructional staff, and administrators.

The professional development schedule outlined in Table 3 identifies professional development topics that support the district's nine technology goals. New topics will be added based on the technology needs assessment that will be conducted in fall 2011 in conjunction with the district's three-year professional development needs assessment required by Title IIA.

Table 3: Three Year Technology Plan Professional Development*		
2011-2012	**2012-2013**	**2013-2014**
Technology integration: Language Arts curriculum and adopted materials and assessments	Technology integration: Social Studies curriculum and adopted materials and assessments	Technology integration: Math curriculum and adopted materials and assessments
Teachers, principals and librarians will be trained on selected digital citizenship materials during inservices and embedded professional development. Obj 4.4		ITTs will deliver professional development in areas of needs identified by student and teacher technology skills assessments. Obj 5.1, 5.2
Review the information about CIPA with current teachers and instructional staff. Obj 7.2		
Provide training on specific hardware for teachers and staff as needed. Obj 1.3		
Provide training for new operating Mac and PC systems, if needed Obj 2.4		
The research based strategies outlined in RTI, PLC's and essential learnings, Marzano's Essential 9, and *Thinking Maps* will frame PD strategies for teachers and instructional staff. Training will occur during districtwide inservices, early outs, PLC meetings, monthly library meetings, UAF credit classes and workshops. Obj 3.1		
Provide ongoing training and follow-up for teachers and instructional staff on technology for adopted and supplemental curriculum materials. Obj 3.2		
Provide initial and follow-up technology training to teachers new to the district. Obj 3.3		
Provide training to teachers, administrators and instructional staff to increase their capacity to use technology. Obj 3.4		
Use *Atomic Learning* to provide embedded and ongoing training for teachers, administrators and instructional staff. Obj 3.5		
Provide training on *MUNIS* for all staff. Obj 3.6		
ITTs will provide ongoing professional development to new hires with technology skill deficit. Obj 5.3		
Train necessary staff in use of *PowerSchool Premier*. Obj 6.1		
Provide *ConnectEd* training to administrators. Obj 6.2		
Incorporate CIPA training into new hire orientation. Obj 7.2		
Professional development will be provided for new programs and pilots approved for the district. Obj 8.2		
	Lessons from a bank of K-12 model lesson plans to support the newly adopted K-12 Technology Curriculum will be demonstrated in elementary and secondary classrooms and libraries. Obj 4.2	
	Teachers, instructional staff and principals will receive training to support implementation of K-12 Technology Curriculum during inservice, UAF credit courses, MayMixer, and embedded PD. Obj 4.3	

*See Appendix A for Educational Technology Plan Goals and Objectives.

Teachers new to the district will be targeted for additional training and support to promote inclusion of technology into all aspects of their teaching. The Human Resources Department, the elementary curriculum coordinator, and assistant superintendents will establish and incorporate technology proficiencies into hiring procedures for new hires. New hires with proficient technology skills will be better able to integrate technology into their instructional practices.

The Curriculum Department will coordinate all professional development and each spring will finalize the professional development calendar for the following school year. For reference purposes only, the district's 2011-2012 Academic Calendar is included in Appendix N and shows when districtwide professional development, through early outs and inservices, will be provided.

D2.The district will ensure that teachers are prepared to integrate technology effectively into curricula and instruction.

Goal/Objective References	Appendices References
3.1, 3.2, 3.3, 3.4,3.5 4.2, 4.3, 4.4 5.2, 5.3, 5.4	Appendix O: Curriculum Cycle Technology Professional Development

Progress to date: See A1: Curriculum Development: Technology Integration Across Content Areas, pg. 2

2011-2014: Integration of technology will continue to be the focus in developing and modeling curriculum. See A1: Curriculum Development: Technology Integration Across Content Areas, pg. 2.

Additionally, when completed, the K-12 Technology curriculum will provide the foundation for technology professional development and technology needs assessments. The new curriculum will also provide a framework for ITTs, content coaches, and librarians when assisting teachers with integrating technology into their classrooms to increase academic performance.

Finally, as shown in Table 3: Three Year Technology Plan Professional Development (pg. 18), teachers will be provided targeted professional development to improve their capacity to integrate technology into language arts, social studies, Career and Technical Education (CTE), art and math. FNSBSD will continue training in all content areas for iPod, iPad, SmartBoard, and newly adopted technologies.

E. Resources

E1. The district will coordinate federal, state, local, and other funding sources to support student academic achievement, technology literacy, and integration of technology into curricula and instruction.

Goal/Objective References	Appendices References
8.4, 8.5, 9.1, 9.3	N/A

Although FNSBSD uses a variety of funding sources in order to provide students and teachers access to technology, true coordination of funding has been limited.

Progress to date: Operating funds, Title IA, Title IIA, Title IID, Title VIB, and ARRA funds are currently being used to support technology purchases. E-Rate funding has been used to support significant WAN upgrades.

2011-2014: FNSBSD will coordinate funding sources to support student academic achievement, technology literacy, and integration of technology into curricula, instruction, and operational practices. These include the grant review process, the development of the district's operating budget, and focused discussions at Cabinet and Educational Technology Plan (ETP) team meetings. Funding options include operating funds, E-rate, Title IA, Title IIA, Title IID, Title VIB, legislative grants and other funding sources.

The ETP team will meet quarterly throughout the year to discuss identified technology needs and how these needs can be funded through grants, operating funds, and other funding sources. The central focus of these meetings will be technology literacy and integration of technology into curriculum to improve student academic achievement. The technology funding opportunities discussed in these meetings will be vetted through the district's Grant Review Committee.

The Grants and Special Projects Department will research and present potential federal, state and local funding to the Grant Review Committee (GRC), which meets bi-weekly during the school year. The GRC includes

department heads and assistant superintendents. Members of the GRC will discuss how resources can be coordinated and how strategic partnerships with community stakeholders can be fully leveraged to meet technology needs. The GRC will also consider how different funding sources can be coordinated to maximize buying power for potential projects. The GRC will make recommendations to the School Board on grants to pursue and submit grant applications upon Board approval.

When operating funds are required, the chief financial officer and directors from the Network Services, Information Systems and the Curriculum Department will coordinate their operating budgets to ensure hard dollar technology purchases are funded to achieve the goals of the ETP.

In addition to coordinating funding sources, FNSBSD will make a concerted effort to increase public awareness of its effective use of technology and to garner support for the funding of district technologies. To promote awareness, the number of technology presentations and spotlights at Board meetings will increase; School Board and community members will be invited to technology trainings, as appropriate; presentations will be made at appropriate community venues; and support will be provided for technology nights at school sites. An increase in public awareness will help pave the way for success in securing bonds to fund district technology.

E2. The district will ensure the supporting resources to ensure successful and effective uses of technology.

Goal/Objective References	Appendices References
1.1 2.1, 2.2, 2.3,2.4 9.3	Appendix F : FNSBSD Wide Area Network Appendix G: 2010-2011 Budget Inventory Analysis Appendix P: Policy 801.23 *Installation of Software*, Policy 802.26 *Installation of Software*) Appendix R: Draft AR 801.23 *Supplemental Software Request Procedure*, Mobile Devices Dos & Don'ts, iApp Request Form Instructions, iApp Request Form, Evaluation Rubric for iPod Apps

Progress to date: A variety of resources have been leveraged to ensure successful and effective uses of technology by strengthening support for hardware, software, and Internet connectivity. Significant K-12 WAN upgrades commenced on July 1, 2010. E-Rate funding has enabled significant improvements in fiber optic connectivity and high-speed Internet access and speed. Network Services (NWS) modified and upgraded its work order system to make it a more user-friendly and useful tool in order to respond more efficiently to hardware/software support requests. Trainings for technicians are held by NWS as appropriate. NWS also installed a local server to facilitate the use of video-on-demand as provided by our Discovery Education subscription. NWS uses Filewave to remotely push out software to computers.

Moreover, progress has been made towards standardizing software through specific district policies (801.23 *Installation of Software* and 802.26 *Installation of Software*). In addition, Draft AR 801.23 *Supplemental Software Request Procedure* provides directions for the purchase and use of apps for mobile learning devices such as iPod Touches and iPads. Technology & Information Systems developed a process and instructions, which are posted online, for the purchase and tracking of iApps. A software committee has been formed to review new purchases of software and is starting to address the issue of software standards across the district.

FNSBSD uses a variety of assistive technologies such as switches and sound boards to aid students with special needs. Also, *Goalview* is used for developing online individual education plans and for tracking special education data.

2011-2014: To ensure efficacy of supporting technology resources, FNSBSD will standardize operating systems, educational software, and hardware purchases. This will support districtwide professional development for resources such as SmartBoards, *Microsoft Office, iLife Suite, Geometer's SketchPad, Google Earth and Adobe*. Further, FNSBSD will continue to streamline iApps purchasing procedures. Also, iApps will be

purchased as needed to support student learning. For example, the district will review and pilot iApps developed to support *EveryDay Math*. Finally, FNSBSD will continue piloting new technologies such as e-readers and the use of e-books.

E3. The district will maintain an inventory of technology including provisions for interoperability.

Goal/Objective References	Appendices References
1.2, 2.1, 3.6	N/A

Title IID

Title IID funding (~$20,000) is currently used to provide professional development through *Atomic Learning*. As the FY12 NCLB Consolidated Application is developed, FNSBSD will determine how future Title IID funds will be used.

Technology Inventory

Progress to date: An annual inventory of hardware is completed by Accounting Services for each school and shared with Network Services. This information is used for the annual computer count requested by DEED.

2011-2014: Network Services will maintain a list of teacher computers, handheld devices (iPod Touches and iPads), and software. All new software purchases, including curricular materials, will meet minimum established standards set by Network Services for MacIntosh and Windows operating systems and will be reviewed by the Curriculum Department to ensure curricular viability. Minimum standards for hardware will also be established. Hardware and software not meeting those standards will not be purchased.

Destiny Library Media Manager* and *Destiny Textbook Manager

Progress to date: Library Media Services has worked closely with Information & Technology Systems to implement and integrate *Destiny Library Media Manager* with *PowerSchool Premier*. This allows for daily updates of patron information. Additionally, LMS has worked closely with the Curriculum Department to implement *Destiny Textbook Manager* in all high schools. This allows the district to track and move textbooks between schools as needed. In the first semester of implementation, approximately $42,000 of textbooks were reallocated between high schools. *Destiny Textbook Manager* will be fully integrated with *PowerSchool Premier* this semester. This will allow parent notification of student textbooks checked out and/or overdue. Library Media Services also provides a Help Desk for *Destiny* and Online Resources.

2011-2014: *Destiny Textbook Manager* will be implemented in all middle schools.

MUNIS

2011-2014: Having reliable, accurate inventory information is the key to making good decisions about technology access. The district's accounting software is currently being replaced by *MUNIS*, a new financial and resources management system. With the installation of *MUNIS*, the district will be able to maintain an accurate hardware inventory. The *MUNIS* replacement project officially started in September 2010 with an initial "go live" date of January 1, 2012. By July 1, 2012, the directors of Technology and Accounting will also determine if additional software will be needed to track operating systems and software on district computers. If needed, the additional tracking software will be purchased and utilized. A physical inventory of both hardware and software will be completed annually to ensure established district standards are being met in all schools.

F. Accountability

F1. The district will measure the effectiveness of integrating technology into curricula and instruction, increasing the ability of teachers to teach, and enabling students to reach challenging state academic standards.

Goal/Objective References	Appendices References
4.4, 5.2, 5.4	Appendix Q: Student and Teacher Evaluation of Technology Proficiencies Pilot

Progress to date: The district has researched and selected Learning.com's assessment tools to pilot in the spring of 2011. In addition, FNSBSD has piloted three other programs, *PLATO*, *MY Access!* and *GradeCam*, to measure the effectiveness of technology in helping students reach state academic standards. *MY Access!* has been piloted for three years, *PLATO* two years, and *GradeCam* one year. (see A2, pg. 3)

2011-2014: See C2, pg. 11: Evaluation. Classroom observations will be used to evaluate the integration of technology into instruction. Learning.com will be used to evaluate the increased ability of teachers and students. The district's Research and Accountability Department intends to correlate technology assessment results to the SBAs and analyze student outcomes.

F2.The district will measure the effectiveness of the educational technology plan and the district's progress toward meeting the plan's goals.

Goal/Objective References	Appendices References
9.2	Appendix A: Educational Technology Plan Goals and Objectives

Progress to date: District and school level administrators developed the Technology Blueprint in 2006. The Blueprint, incorporated in the 2008-2011 Educational Technology Plan, guided the district's vision for using technology to improve student learning and improve business operations. Blueprint goal leader meetings took place regularly in 2008 and 2009. The purpose of the meetings was to discuss progress being made on the goals. Much was accomplished under the purview of the Blueprint, including the provision of laptops to all teachers, the use of ITTs to provide embedded professional development, the implementation of *PowerSchool Premier*, and the phase-in of *MUNIS*. By 2010, regular meetings were no longer taking place, mainly due to staff turnover.

2011-2014: Administrative support is critical to creating a climate in which teachers regularly use technology for teaching and learning. Developing the 2011-2014 Educational Technology Plan has provided the district an opportunity to reenergize its technology planning efforts and to fully engage administrative and support staff across departments. This approach helps all stakeholders "own" the plan. The Educational Technology Plan (ETP) team collectively developed the goals and objectives for this plan and will continue as a team to implement the actions and activities. While staff turnover is inevitable, FNSBSD is confident that steady progress will be made toward stated goals and outcomes because:

- tasks have been assigned to specific positions;
- all departments have been involved in the development of the plan; and
- the plan will be used as an implementation guide, not just to fulfill a grant requirement.

The ETP team will convene quarterly to monitor progress toward meeting the nine goals and 43 objectives that are incorporated in the ETP.

F3. Process for periodic review of district needs and revisions.

Goal/Objective References	Appendices References
9.2	**N/A**

By July 1, 2012, the ETP team will develop a process to systematically assess technology needs on an ongoing basis. At quarterly meetings, the ETP team will monitor progress toward meeting ETP objectives. At least annually, the Board will be updated on progress and will provide guidance and input to address ongoing and changing needs. Based on assessed needs and the degree of progress being made, the ETP will be modified as needed.

F4. The district will provide a list of persons involved in crafting this plan.

Representatives of the following five groups are included: administration, teachers, students, community and staff.

Representatives	**Title/Classification**
Louise Anderl	Director, Federal Programs
Bill Bailey	Director, Public Relations
Donn Benn	Instructional Technology Teacher
Mary Carlson	Principal, Barnette Magnet School
Peggy Carlson	Executive Director, Curriculum
Janet Cobb	Director, Information Systems
Kathy Cook	Principal, Ladd Elementary School
Tom Dolan	Content Coach
Dana Evans	Principal, Two Rivers School
Mike Fisher	Chief Financial Officer
Colleen Fitzgerald	Director, Accounting
Traci Gatewood	Director, Grants and Special Projects
Wayne Gerke	Assistant Superintendent - Secondary
Bob Hadaway	Executive Director, Special Education
Roxa Hawkins	Assistant Superintendent - Elementary
Kathy Hughes	Executive Director, Alternative Instruction & Accountability
Ruth Keator	Career & Technical Education Coordinator
Pete Lewis	Superintendent
Robin Mullins	Director, Business Services
Rayna Nelson	Student, Hutchison High School
Casey Obringer	Curriculum Coordinator - Secondary
Ellis Ott	Research Associate/Accountability Coordinator
Gayle Pierce	Director, Labor Relations
Kathy Port	Curriculum Coordinator - Elementary
Matthew Brian Powell	Principal, Nordale Elementary School
Kerry Quillin	Grants Coordinator
Heather Rauenhorst	Program Evaluator/Research Analyst
Katie Sanders	Director, Library Media Services
Bett Schaffhauser	Director, Employment & Educational Opportunity
Gena Tran	Grants Coordinator
Alica Unruh	Professional Development Coordinator
Samantha Wuttig	Content Coach
Greg Yocum	Director, Technology
Trish Yocum	Instructional Technology Teacher
Mike Kolasa	Literacy Council of AK (Adult literacy input only)
Bob Johnston	Adult Learning Programs of AK (Adult literacy input only)

G. CIPA

G1. Technology Protection Measure: Specific technology has been identified that will be used to block or filter Internet access. It must protect against access by adults and minors to visual depictions that are obscene, child pornography, or - with respect to use of computers with Internet access by minors - harmful to minors. It may be disabled for adults engaged in bona fide research or other lawful purposes.

Goal/Objective References	Appendices References
7.2	**N/A**

The district uses the compliance requirements for CIPA to qualify for E-Rate funding. The replacement of the iPrism system with 8e6 is now complete. All Internet activity is logged. FNSBSD uses different filtering standards for staff and students. An active directory is used to verify whether staff or students are attempting to access appropriate Internet sites. Staff have more open access to sites than students.

G.A. Internet Safety

G2. The Internet Safety Policy addresses the following issues:

a) access by minors to inappropriate matter on the Internet and World Wide Web;
b) the safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications;
c) unauthorized access, including so-called "hacking," and other unlawful activities by minors online;
d) unauthorized disclosure, use, and dissemination of personal information regarding minors; and
e) measures designed to restrict minors' access to materials harmful to minors.

Description of the internet safety policy that addresses all the items outlined and includes the monitoring of online activities of minors.

Goal/Objective References	Appendices References
7.2	Appendix S: 801.28 *Employee Use of Technology: Unsuitable Material Filters*, 802.23 *Student Use of Technology: Unsuitable Material Filters* Appendix T: 802.22 *Unacceptable Uses, 802.25 Acceptable Technology Use Agreement, 803 Digital Citizenship and Internet Safety*, 805 *Digital Learning Communities* Appendix U: 802.24 *Administrative Regulations*, 802.25 *Acceptable Technology Use Agreement*

a) access to minors to inappropriate matter on the Internet and World Wide Web;
Filtering is in place. The School Board adopted Policies 801.28 *Employee Use of Technology: Unsuitable Material Filters* and 802.23 *Student Use of Technology: Unsuitable Material Filters*, in June of 2008.

b) the safety and security of minors when using electronic mail, chat rooms, and other forms of direct electronic communications;
School Board Policy 802.22 identifies *Unacceptable Uses* and School Board Policy 802.25 requires an *Acceptable Technology Use Agreement*. School Board Policy 803 *Digital Citizenship and Internet Safety* was adopted in February of 2011. It establishes a curriculum ladder for these topics. School Board Policy 805 *Digital Learning Communities* was also adopted in February 2011 and addresses student safety in the digital world.

c) unauthorized access, including so-called "hacking," and other unlawful activities by minors online;
Logs of all activities are maintained. School Board Policy 802.22 *Unacceptable Uses* was adopted in June 2008 and addresses activities not permitted for students.

d) unauthorized disclosure, use, and dissemination of personal information regarding minors;
School Board Policy 802.24 *Administrative Regulations* and 802.25 *Acceptable Technology Use Agreement*

address the safety and security of students and student information. It also provides guidelines for students and must be reviewed by students and parents yearly. These were adopted in June 2008.

e) measures designed to restrict minors' access to materials harmful to minors.
Filtering is in place. School Board Policy 801.28 *Unsuitable Materials Filter* was adopted in June 2008.

2011-2014: FNSBSD will continue to develop and update policies governing the use and management of technology. FNSBSD will follow the vision of the School Board and have a foundation through policy, for using, managing, and funding technology. By June 30, 2011, all technology polices will be reviewed for the purpose of evaluating whether they provide relevant guidance on using and managing technology.

Also, by June 30, 2011, and annually thereafter, directors of EEO, Technology, Library Media Services and Human Resources, as well as the Network Administrator, will review CIPA to ensure the district's compliance. Following the review, other staff will be notified of CIPA requirements.

Finally, annually through June 2014, FNSBSD will review and develop technology policies to ensure the district stays current with new and emerging technologies.

G.B. Public Notice and Hearing

*The authority with responsibility for administration of the school or library has provided **reasonable public notice** and held at least **one public hearing** to address a proposed Technology Protection Measure and Internet Safety Policy. **Provide** documentation of the public notice and agenda/minutes of the public hearing to address the Technology Protection Measure and Internet Safety Policy within the last three years.*

The February 1 and 15, 2011 meetings of the FNSBSD School Board provided public notice and public hearing of School Board Policy 803, *Digital Citizenship and Internet Safety*, and School Board Policy 805, *Digital Learning Communities*. Technology Blueprint Updates were presented at the January 20, 2009 and January 19, 2010 Board meetings. Documentation is provided in Appendix V.

H. Appendices

Appendix A: Educational Technology Plan Goals and Objectives
Appendix B: Draft K-12 Technology Curriculum
Appendix C: K-12 Technology Curriculum Overview
Appendix D: AR 910-Appendix A Curriculum Management Model
Appendix E: *MY Access!* Writing Improvement Program 2009-2010 Pilot Project Evaluation Summary
Appendix F: FNSBSD Wide Area Network
Appendix G: 2010-2011 Budget Inventory Analysis
Appendix H: Research-Based Practices in Technology
Appendix I: Instructional Technology Teachers, FNSBSD JOB DESCRIPTION: ITT
Appendix J: Fairbanks Technology & Learning Conference, May 22, 2008
Appendix K: MayMixer, May 20, 2010
Appendix L: *Zoomerang* Professional Development Needs Assessment 2010-2013
Appendix M: Instructional Technology "NEEDS ASSESSMENT SURVEY"-December 2009
Appendix N: 2011-2012 FNSBSD Academic Calendar
Appendix O: Curriculum Cycle Technology Professional Development
Appendix P: Policy 801.23 Installation of Software, Policy 802.26 Installation of Software)
Appendix Q: Student and Teacher Evaluation of Technology Proficiencies Pilot

Appendix R: Draft AR 801.23 *Supplemental Software Request Procedure*, Mobile Devices Dos & Don'ts, iApp Request Form Instructions, iApp Request Form, Evaluation Rubric for iPod Apps

Appendix S: Policy *801.28 Employee Use of Technology: Unsuitable Material Filters, Policy 802.23 Student Use of Technology: Unsuitable Material Filters*

Appendix T: Policy *802.22 Unacceptable Uses, Policy 802.25 Acceptable Technology Use Agreement, Policy 803 Digital Citizenship and Internet Safety, Policy 805 Digital Learning Communities)*

Appendix U: Policy *802.24 Administrative Regulations, Policy 802.25 Acceptable Technology Use Agreement)*

Appendix V: Public Notice and Hearing Documentation

Appendix A

Needs Addressed:

1. To develop a minimum standard for classroom hardware and software in order to minimize discrepancies between schools.
2. To access the best prices through economies of scale.
3. To ensure students have consistent access to technology.
4. To maximize E-rate opportunities.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 1.1: Evaluate practical WAN utilization at all facilities to see if an upgrade is needed.	Network Administrator	Quarterly	• Establish a districtwide standard. • Evaluate current usage to determine upgrade needs. • If upgrade is warranted, evaluate the possible upgrades available. • Make a decision, based on available data, whether upgrade can take place. • Purchase hardware to connect the school to the fiber.	A more robust and reliable connection enhances access to curricular materials.	N/A	• Will lease high-speed circuits from telecom vendors. • May upgrade schools' routers to take full advantage of the new circuit.	• Existing staff time • $500 - $4,000 per month, per site. • $7,000 per router per site (upgrade 50 total routers in district as needed) • Operating funds • State funding • E-rate • Grants	To ensure schools have sufficient capacity to meet usage needs, the network administrator will review and evaluate WAN usage quarterly to determine upgrade needs.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 1.2: Establish a system to provide an up-to-date inventory of hardware and software across the district.	• Director of Technology • Director of Accounting	July 1, 2012	• Utilize MUNIS to track equipment. • Determine if additional software is needed to track operating systems and software applications. • Purchase, install, and utilize additional tracking software, if needed. • Review and update current School Board policies on equipment inventory to establish a clear process and procedure for improved accountability and usage of equipment.	N/A	N/A	• MUNIS • Other inventory tracking software as needed	• Existing staff time • Cost of additional software TBD Operating funds	By July 2012, and annually thereafter, a physical inventory of hardware and software will be completed. Inventory data will be maintained and easily accessible in a report format.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 1.3: Develop a districtwide baseline minimum standard for hardware in classrooms and libraries.	• Principals • Instructional Technology Teachers (ITTs) • Director of Technology • Director of Accounting • Director of Library Media Services • Executive Director of Curriculum	By the end of the 2011-2012 school year, and annually thereafter.	• Review curriculum to determine needs and to develop a baseline minimum standard. • Test hardware at different sites to ensure it works properly. • Purchase and install new hardware as needed.	A minimum baseline level of classroom and library hardware will ensure equity across the district for classroom instruction.	Provide training on specific hardware for teachers and staff as needed.	TBD	Existing staff time • Operating funds • State funds • E-rate • Grants • Technology bond	By June 30, 2014, classrooms and libraries will have equipment that meets the district's baseline. Annually, Library Media Services, Accounting Services, Network Services, the Curriculum Department, and principals will review and adjust equipment levels as needed.

Needs Addressed:

1. To ensure that new purchases meet minimal hardware and software standards and support curriculum.
2. To centralize technology to save money and improve management and maintenance.
3. To standardize technology to ensure teachers and students can easily utilize hardware and software.
4. To ensure equity across the district for technology.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 2.1: Develop a sustainability plan for hardware and software replacement.	• Director of Technology • Chief Financial Officer • Elementary Curriculum Coordinator • Executive Director of Curriculum • Director of Library Media Services	May 2014	• Research leasing vs. purchasing of hardware. • Determine ideal cyclical time-frame for replacement. • Maintain inventory so hardware and software decisions can be made. **(See Goal 1, Obj. 1.2)**	Consistent software and hardware across the district allows for quality professional development and lesson sharing by teachers.	N/A	N/A	Existing staff time • Operating fund • Bond • State funding	The district will have a replacement and sustainability plan for technology.
Obj 2.2: Finalize the district supplemental software review process AR 801.23.	• Director of Technology • Executive Director of Curriculum • Elementary & Secondary Curriculum Coordinators • Director of EEO • Director of Library Media Services	May 2011	• Meet with the established committee to finalize procedure. • Finalize AR 801.23 • Disseminate AR 801.23 to staff. • Communicate new review process to staff. • Post forms on the district website.	Software will be tied to curricular objectives and AK Content Standards and/or GLEs.	N/A	N/A	Existing staff time Operating funds	AR 801.23 will be in place and staff will adhere to guidelines.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 2.3: Continue to evaluate and refine the iApp licensing process	• ITTs • Systems and Database Administrator • Director of Technology • Executive Director of Curriculum • Elementary Curriculum Coordinator • Director of Information Systems • Materials Development Specialist (Information Systems)	Ongoing	• Quarterly, evaluate procedures to determine if they are current, efficient, and economical. • Disseminate licensing process to staff. • Post forms on the district website.	iApps are used to deliver course content to students via the iPad/iPod.	N/A	N/A	Existing staff time Operating funds	iApp licensing will follow established procedures.
Obj 2.4: Standardize operating systems (OS)	• Director of Technology • Executive Director of Curriculum • Elementary Curriculum Coordinator	Annually and ongoing	• Determine which district computers need upgrades. • Review standard district software to ensure it is compatible with the new OS. • Install new OS on computers as needed.	Standardizing the operating systems will provide equity across the district. All students will have access to all online programs and resources.	Provide training for new operating system, if needed.	Licenses for new OS.	$50,000/per year. Cost will decrease as old equipment is replaced. Operating funds	Operating systems will be standardized and evaluated annually.

Needs Addressed:
1. To respond to the ongoing demand for increased technology support based upon Instructional Technology "Needs Assessment" survey conducted in December 2009.
2. To address needs identified in the Professional Development Needs Assessment, March 2009.
3. To aid implementation of new district financial and resources management system: MUNIS.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj 3.1: Provide continued professional development in technology integration strategies across all content areas.	• ITTs • Content Coaches • Director of Library Media Services • Executive Director of Curriculum • Elementary & Secondary Curriculum Coordinators • Professional Development Coordinator • Director of Federal Programs • Executive Director of Special Education • RTI Coordinator	Ongoing	Model and provide training on effective educational strategies and practice.	Promotes inclusion of technology into all aspects of teaching.	The research based strategies outlined in RTI, PLC's and essential learnings, Marzano's Essential 9 and Thinking Maps will frame professional development strategies for teachers and instructional staff. Training will occur during: • districtwide inservices • early outs • PLC meetings • monthly library meetings • UAF credit courses • workshops	To be determined	Existing staff time • Operating funds • Title IIA • Title IID • Title IA • Title VIB	Principals, ITTs, and content coaches will observe increased use of technology during instruction.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj 3.2: Provide technology training for adopted curriculum & materials in specific content areas.	• Executive Director of Curriculum • Elementary & Secondary Curriculum Coordinators • ITTs • Content Coaches • Professional Development Coordinator • Executive Director of Special Education • Director of Library Media Services	Ongoing	Provide technology training to support newly adopted curriculum and materials as part of the Curriculum Management Model (AR 910) – see Appendix D.	Promotes inclusion of technology into newly revised content area curriculum.	Provide ongoing training and follow-up for teachers and instructional staff.	To be determined	• Existing staff time • $50,000 for SPED training • Operating funds • Title IIA • Title IID • Title VIB	• Training agendas, sign in sheets, and ITT and content coach logs will reflect teacher participation and types of training provided across content areas. • Lesson plans and principal observations will reflect use of technology across content area instruction.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj 3.3: Provide new teachers training and tools in technology that support instruction.	• ITTs • Content Coaches • Director of Library Media Services • Elementary Curriculum Coordinator • Executive Director of Curriculum • Professional Development Coordinator • Secondary Curriculum Coordinator • Executive Director of Special Education • RTI Coordinator	Annually and as needed.	Provide training and support in the following areas: • K-12 Technology Curriculum • PowerSchool • Destiny Media Manager • Goal View • AimsWeb • Online Resources (World Book, Discovery Ed, EBSCO, etc.)	Promotes inclusion of technology into all aspects of teaching.	Provide initial and follow-up training to teachers new to the district.	To be determined	Existing staff time • Operating funds • Title IIA • Title IID • Title VIB	• New teacher orientation agenda, sign in sheets, and ITT and content coach logs will reflect new teacher participation and types of training and supports provided during implementation of the K-12 Technology Curriculum. • Lesson plans and principal observations will reflect inclusion of technology in teaching practices.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj 3.4: Provide training to teachers, administrators and instructional staff to increase their capacity to use technology.	• ITTs • Professional Development Coordinator • Director of Technology • Director of Information Systems • Executive Director of Special Education • Director of Library Media Services • Executive Director of Alternative Instruction & Accountability	Ongoing	• Provide training on how to set up, use, troubleshoot and evaluate various technologies commonly available. • Utilize Atomic Learning to provide individual skills training.	Supports instructional staff, teachers', and administrators' basic understanding of technology and its application to instruction.	Provide ongoing training and follow-up for teachers, administrators, and instructional staff.	Atomic Learning License	• $23,000/yr Atomic Learning • Existing staff time • Operating funds • Title IIA • Title IID • Title VIB	• Lesson plans and principal observations will reflect increased technology usage. • Usage report of classroom sets of technologies such as GPS, iPods, clickers, and Mobis will reflect increased use.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj 3.5: Promote and evaluate the use of Atomic Learning.	• Professional Development Coordinator • Elementary Curriculum Coordinator • ITTs • Director of Information Systems • Director of Technology • District Help Desk	Spring 2012 and annually thereafter	• Evaluate reports from Atomic Learning that capture usage data. • Survey staff on Atomic Learning use (as part of 3 year professional development survey) • Provide training to teachers, instructional staff, and principals.	Provides an effective tool for teaching the use of technology.	Provide embedded and ongoing training for principals, instructional staff, and administrators.	Atomic Learning License	$23,000/yr. • Title IIA • Title IID	Data reports will show an increase in use of Atomic Learning.
Obj 3.6: Provide training on MUNIS for all staff.	• Director of Information Systems • Director of Accounting	Beginning November 2011 and ongoing	As the various phases of the MUNIS project are implemented, training will be offered to specific groups of staff.	N/A	All FNSBSD staff will receive training.	N/A	Existing staff time Operating funds	All staff will use MUNIS to perform necessary district business processes.

Needs Addressed: 1. To provide students access to 21st century technology skills.
2. To develop student awareness regarding digital citizenship.

Objectives	Responsible Parties	Timeline	General Activities/Actions	Curriculum	Professional Development	Hardware/ Software	Resources / Funding	Outcomes/ Methods
Obj 4.1: Complete development of the K-12 Technology Curriculum.	• ITTs • Elementary Curriculum Coordinator	Fall of 2011	• Present curriculum draft to district staff on April 22, 2011 for feedback. • Revise over the summer. • Present second draft to staff in Fall of 2011. • Revise as needed. • Present to School Board for adoption.	The K-12 Technology Curriculum is based on the six ISTE standards for students.	**(See Obj 4.3)**	N/A	• Printing costs • Existing staff time Operating funds	By the end of Fall 2011, the School Board will adopt the K-12 Technology Curriculum.
Obj 4.2: Build a bank of K-12 model lesson plans across content areas to support the newly adopted K-12 Technology Curriculum.	• ITTs • Director of Library Media Services • Elementary Curriculum Coordinator • Content Coaches	Spring of 2014	• Develop model lesson template. • Develop and model lessons at each grade level. • Develop and model lessons for use in libraries. • Post on district website.	• Lessons will provide support for teachers' use of the curriculum. • Lessons will integrate technology into the library information literacy resources.	Lessons will be demonstrated in elementary and secondary classrooms and libraries.	To be determined based on lessons developed.	Existing staff time Operating funds	By Spring 2014, model lessons across all content areas that support the K-12 Technology Curriculum will be available to teachers on the district's website.

Objectives	Responsible Parties	Timeline	General Activities/Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 4.3: Provide professional development for teachers to support implementation of the K-12 Technology Curriculum.	• ITTs • Director of Library Media Services • Principals	Spring 2014	• Develop and conduct needs assessment in coordination with the three-year professional development needs assessment. • Look at needs and target professional development. • Incorporate information from the Learning.com student and teacher assessments to help determine areas for teacher support.	Professional development will incorporate curricular content.	• Teachers, instructional staff and principals will receive training during inservice, credit courses, May Mixer, and embedded professional development. • Professional development for library staff will be offered at monthly meetings.	To be determined	Existing staff time • Operating funds • Title IIA • Title IID	By Spring 2014, a variety of professional development opportunities that support the K-12 Technology Curriculum will have been provided to teachers and instructional staff.
Obj 4.4: Evaluate and select existing digital citizenship materials for use by district teachers and librarians.	• ITTs • Teachers • Director of Library Media Services • Principals	Spring 2012	• Access digital citizenship materials. • Evaluate, using existing materials review process. • Select/purchase materials that best support the K-12 Technology Curriculum.	Digital citizenship is included in the K-12 Technology Curriculum.	Teachers, principals and librarians will be trained during inservices and embedded professional development.	To be determined	Existing staff time • Operating funds • Title IIA • Title IID	By Spring 2012, district teachers and librarians will have a variety of digital citizenship materials available for use and will have been provided training on their use.

Needs Addressed:

1. To measure the effectiveness of integrating technology into curricula and instruction, increasing the ability of teachers to teach, and enabling students to reach challenging state academic standards.
2. To develop teacher strategies for improving academic achievement and technology literacy of all students.
3. To provide resources that ensure successful and effective uses of technology.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 5.1: Assess and track 5th and 8th grade student technology skills.	• Elementary Curriculum Coordinator • Executive Director of Curriculum	March 2011 and ongoing	• Select/pilot Learning.com. assessment. • Evaluate selected assessment. • Expand pilot or replace assessment.	By assessing student technology proficiencies, the district can provide required reporting of 8th grade technology proficiencies to DEED and support teachers' instruction based on assessment data.	Professional development will be delivered by ITTs to teachers in the areas of need identified in the student assessments.	Web-based (sufficient bandwidth)	$4.00 per student • Operating funds • Title IIA • State funds	The Curriculum Department will analyze student reports from Learning.com and report information to the State annually.
Obj 5.2: Assess and track teachers, principals and administrators' technology skills.	• Elementary Curriculum Coordinator • Executive Director of Curriculum • Assistant Superintendent - Secondary • Assistant Superintendent – Elementary • Director of Labor Relations	Ongoing	• Select/pilot Learning.com. assessment. • Evaluate selected assessment. • Expand pilot or replace assessment.	By assessing teacher, principal, and administrator technology proficiencies, the district can gauge the readiness of teachers to implement the K-12 technology curriculum and principals' and administrators' ability to support them.	Professional development will be delivered by ITTs in the areas of need identified in the teacher, principal, and administrator assessments.	Web-based (sufficient bandwidth)	$10 per teacher • Operating funds • Title IIA • State funds	The Curriculum Department will analyze teacher and administrator reports from Learning.com and report information to the State annually.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 5.3: Establish technology standards for new hires and incorporate them into the hiring process.	• Elementary Curriculum Coordinator • Human Resources • Assistant Superintendent - Secondary • Assistant Superintendent – Elementary	May 2013	• Determine the minimum technology proficiencies of new hires. • Select/develop assessment tool for new hires. • Establish timeline for new hire assessment.	New hires with basic technology skills will be better able to integrate technology into the curriculum.	Ongoing professional development will be provided to new hires by the ITTs in areas of need.	N/A	Existing staff time Operating funds	By May 2013, Human Resources will develop and incorporate technology standards into current hiring practices.
Obj 5.4: Evaluate reliability and validity of each technology skills assessment.	• Executive Director of Alternative Instruction and Accountability • Program Evaluator, Research Analyst • Research Associate, Accountability Coordinator	Annually by the end of the school year	Calculate measures to indicate assessments are reliable and valid.	• Assessment(s) will be aligned with K-12 technology curriculum and State technology standards. • Results shared with Educational Technology Plan team.	N/A	• PowerSchool • SPSS (statistical program)	Existing staff time Operating funds	Annually, reliability and validity will be evaluated by the Research and Accountability Department.

Needs Addressed: 1. To streamline release of information using technology.
2. To identify and improve various modes of districtwide communication through the use of technology.
3. To improve communication with parents and staff.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 6.1: Evaluate and expand the use of PowerSchool as an effective tool for parent communication.	• Research and Accountability • Director of Public Relations • Director of Information Systems • Principals	• August 2011, and each May thereafter, for survey. • August 2012 for improving mode of communication to parents.	• Survey parents to establish a baseline for PowerSchool usage satisfaction. • Measure parent satisfaction annually to determine if parent training is needed and/or if content improvements are necessary. • Provide parent training at open houses, PTA meetings or parent teacher conferences. • Determine feasibility of establishing PowerSchool as the primary repository for district/school to parent communication.	N/A	Train necessary staff in use of administrative interface for best parent communication mode.	To be determined	Existing staff time Operating funds	• By 2014, parent satisfaction will increase by 30% as measured by comparing annual survey with baseline results. • By August 2012, the district will use PowerSchool or another tool as the primary repository for district/school to parent communication.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 6.2: Review current methods and identify and adopt methods to keep parent and staff contact information current.	• Director of Public Relations • Director of Information Systems • Principals	August 2011 (employee) August 2012 (parents)	• Expand ConnectEd list of contacts to include all district staff, organized by school and classification. • Establish and maintain an update of employee contact information to ConnectEd daily. • Identify the best way to keep parent contact phone numbers current.	N/A	Provide ConnectEd training to administrators.	N/A	Existing staff time Operating funds	• By August 2011, the district will have a reliable method of updating employee contact information in ConnectEd. • By August 2012, the district will implement a method to update parent contact information electronically.
Obj 6.3: Expand communication options with parents during crises.	• Director of Public Relations • Director of Information Systems • Assistant Superintendent – Secondary • Assistant Superintendent - Elementary • Principals	August 2012	Deploy the voluntary use of text message emergency alerts for parents through ConnectEd.	N/A	N/A	N/A	Existing staff time Operating funds	• By August 2012, the district will have a text messaging option available for communicating to parents in an emergency.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj. 6.4: District will provide technology training to parents to access school information and support student learning.	• Director of Federal Programs • ITTs • Director of Information Systems • Director of Library Media Services • Executive Director of Special Education • RTI Coordinator	Ongoing	• Provide parent trainings on accessing and using PowerSchool, etc. • Provide parent trainings on programs with home components such as Atomic Learning, Earobics, Leveled Literacy and Read Naturally, and Online Resources through Library Media Services.	Families can provide educational support outside of regular school hours.	N/A	To be determined	Existing staff time • Operating funds • Title IA • Title VIB	Training agendas will reflect a variety of trainings provided to parents.
Obj 6.5: Establish a process to continually collect feedback on districtwide communication.	• Director of Public Relations • Director of Information Systems	August 2012	Provide feedback option in PowerSchool, district web site, etc.	N/A	N/A	N/A	Existing staff Operating funds	By August 2012, a process will exist to collect community feedback.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 6.6: Adopt a guide to disseminate information to various audiences for use by principals and district administrators.	• Director of Public Relations • Management Team	August 2011	• Create guidelines for various mediums for disseminating information. • Provide guide to schools, departments, etc.	N/A	N/A	N/A	Existing staff Operating funds	By August 2011, a guide for disseminating information will be available in the district.
Obj 6.7: Explore the use of Facebook, LinkedIn and other social media in order to enhance communication.	• Director of Public Relations • Human Resources • Management team • Policy Review Committee • ITT's	January 2012	• Form a committee to examine the practical application of Facebook, LinkedIn & other social media.	N/A	N/A	N/A	Existing staff Operating funds	By January 2012, a social media policy recommendation will be presented to the School Board.

Needs Addressed: 1. To have the School Board state its vision for technology in the district.
2. To have a basis in policy for using and managing technology.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 7.1: Complete review of current policies governing the use and management of technology.	• Director of EEO • Director of Labor Relations • ITTs • Director of Library Media Services • Director of Technology • Assistant Superintendent – Facilities Management	June 30, 2011	• Identify and read all policies governing the use and management of technology.	Current Chapter 8 policies support district technology curriculum objectives for teachers and students while protecting student privacy and defining acceptable uses.	N/A	N/A	Existing staff time Operating funds	By June 30, 2011, technology policies will be reviewed for the purpose of evaluating whether they provide relevant guidance on using and managing technology.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 7.2: Review and ensure school district's compliance with Children's Internet Protection Act (CIPA).	• Director of EEO • Director of Technology • Director of Library Media Services • Network Administrator • Human Resources	June 30, 2011 and annually thereafter	• Review and vet requirements of CIPA. • Maintain documentation of public notice, agenda and minutes of public hearing addressing Internet safety.	N/A	• Create an educational notice related to key components of CIPA for distribution to staff. • Incorporate CIPA training into new hire orientation.	N/A	Existing staff time Operating funds	• Board policies will provide guidance on CIPA. • Board will appropriately address CIPA-related issues. • Annually, staff will be notified of CIPA requirements. • District will remain in compliance with CIPA requirements.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 7.3: Review and develop technology policies to ensure they stay current with new and emerging technologies.	• Principals • Policy Review Committee • ITTs • Executive Director of Curriculum • Elementary Curriculum Coordinator • Director of Labor Relations • Director of EEO	Annually, through June 2014	• Schedule annual meetings to discuss topics and technologies that may need to be addressed by policy. • Vet proposals through stakeholder groups. • Draft policy language. • Send policies through approval process. • Notify administrators, who will update their staff members, of updated policies.	Establishing a review cycle ensures that current policies are meeting the curricular needs of students and staff.	N/A	N/A	Existing staff time Operating funds	Updated policies will provide relevant guidance to technology implementation.

Needs Addressed: 1. To increase access to course offerings for all students.
2. To develop policy and structures for technology-based instruction.
3. To ensure existing district technology programs support student achievement.
4. To increase public support for funding of district technologies.
5. To be prepared for technologies not yet developed.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj 8.1: Investigate and develop districtwide educational structures to optimize the use of technology to improve student achievement.	• Assistant Superintendent - Secondary • Assistant Superintendent – Elementary • Director of EEO • Director of Labor Relations • Executive Director of Alternative Instruction and Accountability • Director of Technology • Executive Director of Curriculum • Assistant Superintendent- Facilities Management • Director of Information Systems • Director of Federal Programs • Executive Director of Special Education • Director of Library Media Services • ITT's • Content Coaches	Ongoing	• Evaluate needs and gaps in existing structures i.e. policies, administrative regulations, negotiated agreements, highly qualified, grading, and attendance. • Develop a plan to address the identified needs and gaps.	Provides differentiated instruction and equitable access to educational opportunities.	N/A	N/A	Existing staff time • Operating funds • Title IIA • Title IID • Title IA • Title VIB	• Needs and gaps will be identified. • Structures that need change will be identified. • Initial plan will be drafted.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj. 8.2: Expand student opportunities for using technology to participate in distance learning activities.	• Executive Director of Alternative Instruction and Accountability • Director of Technology • Executive Director of Curriculum • Assistant Superintendent - Secondary • Assistant Superintendent – Elementary • Chief Financial Officer • Assistant Superintendent- Facilities Management • Director of Grants and Special Projects		•Offer online courses to high school students during the summer as enrichment and credit recovery. •Pilot a diagnostic course for credit recovery. •Offer distance learning courses. •Investigate funding for equitable access for all high schools.	Provides differentiated instruction and equitable access to educational opportunities.	Professional development for staff will depend on specific programs or pilots.	• To be determined for distance delivery classrooms. • Web-based software or hardware for distance delivery.	Existing staff time • Operating funds • Title IIA • Title IID • Title IA • Title VIB • Other grants	Student participation in distance learning activities will increase.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj. 8.3: Evaluate the impact of existing district technology programs and the technology skills assessment on student achievement.	• Program Evaluator, Research Analyst • Research Associate, Accountability Coordinator • Executive Director of Alternative Instruction and Accountability • Executive Director of Curriculum • Assistant Superintendent - Secondary • Assistant Superintendent – Elementary • Chief Financial Officer • Executive Director of Special Education	Ongoing	• Develop evaluation guidelines for existing technology programs (e.g. evidence of student achievement, cost effectiveness). • Continue and expand successful use of existing technology programs identified by developed guidelines. • Investigate relationship between assessed technology skills and student achievement.	N/A	N/A		Existing staff time Operating funds	• The district will have guidelines to evaluate the impact of existing district technology programs and assessments on student achievement. • The Educational Technology Plan Team will review the relationship between assessed technology skills and student achievement and revise the K-12 Technology Curriculum, if needed.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj. 8.4: Promote district's effective use of technology in order to increase public awareness and support.	• Content Coaches • ITTs • Executive Director of Curriculum • Director of Public Relations • Assistant Superintendent - Secondary • Assistant Superintendent – Elementary • Principals • Superintendent • Director of Library Media Services • Director of Federal Programs • Executive Director of Special Education	Ongoing	• Increase technology presentations and spotlights at Board meetings. • Invite School Board and community members to technology trainings, as appropriate. • Encourage and support technology nights at school sites. • Make presentations to the education committee of the Chamber of Commerce.	Presentations and trainings will have a curricular focus.	N/A	To be determined	Existing staff time • Operating funds • Title IIA • Title IID	There will be an increase in the number of presentations and spotlights at Board meetings, technology nights, and invitations to the Board and community members.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/Methods
Obj. 8.5: Continue to explore innovative opportunities to meet district needs	• Director of Federal Programs • Executive Director of Curriculum • Assistant Superintendent - Secondary • Assistant Superintendent – Elementary • Executive Director of Special Education • Chief Financial Officer • Director of Information Systems • Director of Library Media Services • Executive Director of Alternative Instruction and Accountability • Director of Grants and Special Projects • Program Evaluator, Research Analyst • Research Associate, Accountability Coordinator • ITT's • Content Coaches	Ongoing	• Continue to research innovative practices. • Investigate the use of Web 2.0 tools such as Google Docs, Wikis, and Blogs and the associated policies to support instruction. **(See Goal 7 Obj 7.3)** • Increase inter-departmental collaboration/ discussions regarding innovative practices. • Use national and state technology conferences to stay current in innovative technology practices. • During quarterly ETP meetings, share and report researched innovations.	Innovative technologies may be used to support curriculum and instruction.	To be determined.	To be determined	Existing staff time • Operating funds • Title IIA • Title IID • Title IA • Title VIB • Other grants	• New strategies will be explored and discussed at a districtwide level as evidenced by meeting minutes. • New technologies will be piloted based on evaluation guidelines developed in Obj 8.3.

Needs Addressed: 1. To maximize and leverage resources to support implementation of the FNSBSD Educational Technology Plan (ETP).
2 To address ongoing and changing educational technology needs.

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 9.1: The district will seek and coordinate local, state, and federal funding sources to support implementation of the Educational Technology Plan (ETP).	• Director of Federal Programs • Executive Director of Curriculum • Assistant Superintendent – Facilities Management • Chief Financial Officer • Director of Grants and Special Projects • Director of Business Services • Elementary Curriculum Coordinator • Program Evaluator, Research Analyst • Director of Technology • Executive Director of Special Education	Ongoing	• Seek funding and strategic partnerships to leverage resources. • Develop evaluation methods that capture the needs for funding. • Research and pursue E-rate, grants, and other funding opportunities to support educational technology needs.	Additional funding will support all goals of the ETP, including technology curriculum development.	N/A	N/A	Existing staff time	• Potential funding sources will be vetted to determine if they are appropriate for district use. • Funding sources will be coordinated to maximize buying power. • Funding coordination will follow the ETP. • Funding applications will be submitted to secure funds.
		Quarterly	Meet to discuss options in funding identified needs.				• Operating funds • E-rate • Title IA • Title IIA • Title IID • Title VIB • Legislative and other grants	

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 9.2: The district will evaluate its progress toward meeting ETP objectives.	ETP Team	By July1, 2012	Establish and adopt a process to assess district technology needs on an ongoing basis.	N/A	N/A	N/A	Existing staff time	• By July 1, 2012, the district will have a process to assess technology needs on an ongoing basis. • Progress will be made on ETP objectives. • Board will provide guidance and input to address ongoing and changing needs. • ETP will be modified as needed.
		Quarterly	Convene the ETP Team in order to monitor progress toward meeting ETP objectives.					
		Annually	Based on assessment and progress, modify ETP as needed.				Operating funds	
		Annually	Update the Board on implementation and seek input on future needs.					

Objectives	Responsible Parties	Timeline	General Activities/ Actions	Curriculum	Professional Development	Hardware/ Software	Resources Funding	Outcomes/ Methods
Obj 9.3: Explore strategies to maximize technology resources (i.e. thin clients, Open Source, cloud computing, student owned technology).	• Director of Technology • Elementary Curriculum Coordinator • Executive Director of Curriculum • ITTs	Ongoing	• Identify options to save money. • Use free resources when appropriate to replace technology that has an annual cost or fee.	N/A	N/A	To be determined	Existing staff time Operating funds	Recommendations will be reviewed by the ETP Team for possible inclusion in the Educational Technology Plan.

Appendix B

Technology Guidelines

Grades K-12

DRAFT 1 March 2011

ACKNOWLEDGEMENTS

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Table of Contents

Foreword

In early 2011, the FNSBSD updated its Educational Technology Plan (ETP). Goal 4 of the plan centers around building a K – 12 digital curriculum that integrates technology into instruction. This curriculum is based on the International Society for Technology in Education Standards. It is intended to provided support, guidance, and instructional suggestions for teachers in order to infuse technology within all content areas.

In anticipation of the 2012 version of the NAEP, the International Society for Technology in Education (ISTE) updated the National Educational Technology Standards (NETS) for students. ISTE has established four levels of standards: K – 2, 3 – 5, 6 – 8, and 9 – 12. In addition, the Elementary Secondary Education Act (ESEA) requires that students demonstrate technology literacy by the end of eighth grade.

FNSBSD's technology guidelines are based on the NETS for students. These standards are comprised of six strands:

- Creativity and Innovation
- Communication and Collaboration
- Research and Information Fluency
- Critical Thinking, Problem Solving, and Decision Making
- Digital Citizenship
- Technology Operations & Concepts

In 2009, the Fairbanks Northstar Borough School District incorporated the effective use of technology as part of the teacher evaluation tool. Teachers should use technology as a(n)

- communication tool
- necessary tool in 21st Century learning
- resource in the learning environment
- instructional strategy to enhance the developmental abilities of students
- resource to empower learners with diverse backgrounds, characteristics and abilities
- instructional tool and resource to enhance and extend learning
- support to learner-centered strategies
- tool to develop students' higher order skills and creativity

The Suggested Activities Scope and Sequence was designed to help teachers integrate student computer skills into the curriculum. This list is not exhaustive or mandated and teachers are encouraged to develop their own lessons that work within their grade level curriculum that incorporate the effective use of technology.

The objectives in the Technology Guidelines are correlated to the Alaska Standards.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades K-2

#Strand	#Educational Objectives **Students will:**
Creativity and Innovation **Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.**	
a. Apply existing knowledge to generate new ideas, products, or processes. *A1 b. Create original works as a means of personal or group expression. *A1, A2, A4, B2, D1 c. Use models and simulations to explore complex systems and issues. *B1, C1, C2, C3, D1, D2, D3 d. Identify trends and forecast possibilities. *E1, E2, E3	**a) Use digital tools to explore an area of interest and build on previous knowledge.** ● I can find information using technology (e.g., go to a teacher directed website to research about animals). **b) Illustrate and communicate original ideas and stories using digital tools and media-rich resources.** ● I can use drawing tools (e.g., Kerpoof, Tux Paint, Office, Comic Life) to illustrate an original story. ● I can use a word processing application to share my ideas. ● I can take a digital photo and write a story or poem about it. ● I can write a caption or annotate a photo (e.g., use Preview, WordArt, Comic Life, Kerpoof). **c) Use computer models and simulations to explore complex systems and issues.** ● I can explore the Earth's rotation and find a location on the Earth's surface using Google Earth. ● I can use graphic organizers to explore and depict patterns of growth (such as the life cycles of plants or animals). **d) Use digital resources to identify trends and make predictions.** ● I can use online tools such as NOAA to look at weather patterns and make a prediction. ● I can use digital tools to record the rate of plant growth and look at the data to identify a trend.

Technology Guidelines
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Grades K-2

Communication and Collaboration **Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.**	
a. Interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media. *A2, D1, D2, D3 b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats. *C1, C3, D1 c. Develop cultural understanding and global awareness by engaging, with learners of other cultures. *C1, C3, D1 d. Contribute to project teams to produce original works or solve problems. *C1, C2, D2, D3	**a) Use a variety of technologies to produce a digital presentation or product in a collaborative group.** ● I can work with others to write and share a story (e.g., Kerpoof, Word, Comic Life) and add a graphic or image. **b) Select and use appropriate digital formats to effectively communicate information and ideas to target audiences.** ● I can use apps (e.g., Doodle Buddy) on my iPod or iPad to draw, write with a friend. **c) Develop cultural understanding and global awareness by engaging with learners of other cultures.** ● I can participate in a video conference with my class's pen pals from another culture. **d) Contribute to group projects.** ● I can cooperate in my group to produce a digital presentation (e.g., VoiceThread, PowerPoint, iMovie, etc.) about what my class is studying.
Research & Information Fluency **Students apply digital tools to gather, evaluate, and use information.**	
a. Plan strategies to guide inquiry. *C1, C2, b. Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media. *B1, B2, B3 c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks. *D2, D3 d. Process data and report results. *A5, C3	**a) Identify and research a topic, then collect data using digital resources.** ● I can create a report or presentation with information gathered from digital resources. **b) Select and apply digital tools to collect, organize and analyze data.** ● I can contribute to a graph or tally table (using a spreadsheet tool, SMART Notebook, or online resource) and analyze information. ● I can navigate and bookmark websites. **c) Find relevant information related to a topic or event using digital resources.** ● I can participate in, and contribute my ideas to, a teacher-led online inquiry. **d) Demonstrate understanding of data by articulating results.** ● I can read a class-generated graph or table (in writing or orally) to show my understanding of the results.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades K-2

Critical Thinking, Problem Solving, and Decision Making **Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.**	
a. Identify and define authentic problems and significant questions for investigation. *B1, C1, D2 b. Plan and manage activities to develop a solution or complete a project. *C3 c. Collect and analyze data to identify solutions and/or make informed decisions. *C1 d. Use multiple processes and diverse perspectives to explore alternative solutions. *D1, D2, D3	**a) Identify a real-world problem for investigation using appropriate digital resources.** ● I can use digital tools to investigate a question or problem that I am interested in learning about (e.g., use a website to identify and research ways to help keep the environment clean). ● I can formulate questions to focus my investigation, and organize those questions using digital resources (e.g., word processor, Thinking Maps, Kidspiration). **b) Use technology to plan and manage an investigation to complete a project.** ● I can help make a timeline for completing a class project (e.g., word processor, spreadsheet, Thinking Maps, Kidspiration). **c) Use digital tools to gather data and apply information for problem solving and decision making.** ● I can collect and contribute data for a class science experiment using digital instruments and measuring devices (e.g., iPod/iPad apps, digital microscopes, SMART Board). ● I can identify patterns in a data set using digital resource such as spreadsheets. ● I can use weather data to plan our class garden planting schedule, (e.g., weather apps, widgets, and online weather sites). **d) Find different ways to solve problems from more than one point of view.** ● I can use technology to investigate possible solutions (e.g., flip cameras, digital cameras, online resources, video conferencing). ● I can participate in a class discussion about alternative ways to find information to answer a question (e.g., clickers, video conferencing).

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Technology Guidelines
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Grades K-2

Digital Citizenship **Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.**	
a. Advocate and practice safe, legal, and responsible use of information and technology. *E1, E2 b. Exhibit a positive attitude toward using technology that supports collaborative learning, and productivity. *C2, D2, E6, E7 c. Demonstrate personal responsibility for lifelong learning. *E3, E4 d. Exhibit leadership for digital citizenship. *E5, E8	**a) Demonstrate the safe, responsible, and ethical use of technology.** ● I can begin to identify safe and unsafe online practices by ✓ getting permission from a parent or teacher before sharing private information online. ✓ describing the difference between a real friend and an online friend. ✓ leaving a site and telling an adult if I feel uncomfortable about anything I experience on the Internet. ✓ protecting my passwords by not sharing them with others. **b) Work cooperatively and collaboratively with others to produce a group project.** ● I can make good choices when using technology in a group (e.g., computers, digital cameras, Internet). **c) Demonstrate personal responsibility when using digital tools** ● I can be responsible for contributing to a safe and comfortable online environment for myself and others. ● I can describe appropriate online manners. ● I can discuss cyber bullying issues and practice appropriate social networking in a controlled setting (Kerpoof). **d) Exhibit leadership for digital citizenship** ● I can identify appropriate ways to share and publish pictures, stories, or projects that reflect positively on me, my school, and my community. ● I can respect other's intellectual property by practicing fair use and copyright laws. ● I can contribute to a project that will benefit my community (e.g., public service announcement podcast).

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades K-2

Technology Operations & Concepts **Students demonstrate a sound understanding of technology concepts, systems, and operations.**	
a. Understand and use technology systems. *A1, A2, D2 b. Select and use applications effectively and productively. *A2 c. Troubleshoot systems and applications. *A5 d. Transfer current knowledge to learning of new technologies. *D2, D3	**a) Demonstrate an understanding of technology systems.** ● I know how to turn my computer on and log into it. ● I can check my Airport icon to see if my computer is picking up a wireless signal. ● I can care for my schools' technology equipment. ✓ I can carry my laptop or digital device safely. ✓ I keep food and liquids away from digital devices. ✓ I can make sure equipment is ready for the next student or class. ● I know basic computer skills ✓ I can find keys on the keyboard. ✓ I can click and drag. ✓ I can use a mouse or track pad to open applications. ✓ I can name a document. ✓ I can save a document to a designated location (desktop). ✓ I can adjust my computer's volume **b) Select and use appropriate digital applications.** ● I can open a web browser and use a website. ✓ I can go to *TumbleBooks* and pick a story/book to read. ✓ I can go to *Starfall* and complete an activity. ● I can take and manipulate a photo using Photo Booth. ● I can use a word processing application to type words. ● I can use a drawing application to create an original work of art. (e.g., Comic Life, Word, Tux Paint). ● I can record my voice using digital tools (Photo Booth, GarageBand, recording apps on iPods and iPads). **c) Diagnose and solve common technology problems.** ● I can un-mute and adjust the volume on my computer or digital device to a safe level. ● I can plug headphones into my computer or digital devices. ● I can quit a non-responsive application. ● I can recognize a low battery icon. **d) Build on prior knowledge to learn new technologies.** ● I understand that basic actions (clicking, dragging) and commands (open, save) are consistent across computer platforms, applications and functions. ● I can take my photo in Photo Booth, so I know how to take my photo in Comic Life.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

Grades 3-5

#Strand	#Educational Objectives **Students will:**
Creativity and Innovation **Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.**	
a. Apply existing knowledge to generate new ideas, products, or processes. *A1 b. Create original works as a means of personal or group expression. *A1, A2, A4, B2, D1 c. Use models and simulations to explore complex systems and issues. *B1, C1, C2, C3, D1, D2, D3 d. Identify trends and forecast possibilities. *E1, E2, E3	**a) Use digital tools to explore an area of interest and build on previous knowledge.** ● I can find information using technology (e.g., use a search engine to find information about a topic). **b) Illustrate and communicate original ideas and stories using digital tools and media-rich resources.** ● I can make a podcast or contribute to a VoiceThread. ● I can use a word processing application, SMART Board notebook, or PowerPoint to share my ideas. ● I can incorporate photographs and movies into my projects. ● I can use digital-imaging tools (such as Photoshop, iPhoto, Preview, etc.) to create and modify digital works of art. **c) Use models and simulations to explore complex systems and issues.** ● I can use Layers and tools in Google Earth to explore the Earth's systems. ● I can create 3D models using digital tools such as Google SketchUp. ● I can use online interactive simulations to understand systems, such as museum tours, science simulations, and augmented reality. **d) Use digital resources to identify trends and make predictions.** ● I can explore the Human-Environment interaction (one of the Five Themes of Geography) of climate change using digital tools (e.g., Google Earth to predict what will happen if an earthquake triggers a tsunami).

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 3-5

Communication and Collaboration **Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.**	
a. Interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media. *A2, D1, D2, D3 b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats. *C1, C3, D1 c. Develop cultural understanding and global awareness by engaging, with learners of other cultures. *C1, C3, D1 d. Contribute to project teams to produce original works or solve problems. *C1, C2, D2, D3	**a) Use a variety of technologies to produce a digital presentation or product in a collaborative group.** ● I can work with others to contribute and complete a project using Kerpoof, word processing, Comic Life, presentation software or Cloud Computing with graphics and audio content. **b) Select and use appropriate digital formats to effectively communicate information and ideas to target audiences.** ● I can work with other students on a document using a Google Docs account or other online networks. ● I can create an autobiography or fiction/non-fiction project which includes pictures, text, and audio (e.g., Tux Paint, Photo Booth, Microsoft Drawing Tools, Kerpoof, word processing or presentation software). **c) Develop cultural understanding and global awareness by engaging with learners of other cultures.** ● I can participate in a video conference to complete a collaborative project and work with people (e.g., students, scientists, experts) from other cultures. **d) Contribute to group projects.** ● I can contribute to a group project of a digital presentation (e.g., VoiceThread, iMovie, presentation software, etc.) about a topic.
Research & Information Fluency **Students apply digital tools to gather, evaluate, and use information.**	
a. Plan strategies to guide inquiry. *C1, C2 b. Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media. *B1, B2, B3 c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks. *D2, D3 d. Process data and report results. *A5, C3	**a) Identify and research a topic, then collect data using digital resources.** ● I can research digital resources and create reports or presentations using reliable information collected from the Internet. **b) Select and apply digital tools to collect, organize, and analyze data.** ● I can choose correct programs (e.g., spreadsheet tools, SMART Notebook, or online resources) to make graphs, charts, or tally tables that help me understand information and draw conclusions. ● I can follow links and navigate drop-down menus. ● I can navigate to reliable information on the Internet. ● I can save and organize my web searches using bookmarks and folders.

Grades 3-5

	● I can correctly use digital information and site several sources using references at the end of my report or presentation. **c) Find relevant information related to a topic or event using digital resources.** ● I can find correct digital information, contribute to or help create reports, presentations, web quests, or online inquiries to support my ideas with the aid of a teacher. **d) Demonstrate understanding of data by articulating results.** ● I can make a graph, chart, or table to present and explain new information and show understanding.
Critical Thinking, Problem Solving, and Decision Making **Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.**	
a. Identify and define authentic problems and significant questions for investigation. *B1, C1, D2 b. Plan and manage activities to develop a solution or complete a project. *C3 c. Collect and analyze data to identify solutions and/or make informed decisions. *C1 d. Use multiple processes and diverse perspectives to explore alternative solutions. *D1, D2, D3	**a) Identify a real-world problem for investigation using appropriate digital resources.** ● I can identify and investigate a problem or question in which I am interested in learning about and present the results (e.g., Thinking Maps, Kidspiration, website(s), digital camera, spreadsheet). **b) Use technology to plan and manage an investigation to complete a project.** ● I can use online tools to collect data for a project or investigation. ● I can use digital tools to organize my ideas for a project or investigation (e.g., word processor, spreadsheet, Thinking Maps, Kidspiration, websites). ● I can use digital tools to follow the steps of the writing process to come up with a concept, plan a storyboard, and write a script. **c) Use digital tools to gather data and apply information for problem solving and decision making.** ● I can organize and analyze collected data to evaluate theories, test hypotheses, or make informed decisions using digital instruments and measuring devices on a topic (e.g., iPod/iPad apps, digital microscopes, SMART Board, spreadsheet). **d) Find different ways to solve problems from more than one point of view.** ● I can work with my class to compare and analyze information using various methods (e.g., spreadsheets, charts or various graphs). ● I can participate in a lesson using various digital tools to analyze the same data to gain different perspectives. ● I can work with a group to find more than one source of information to get a balanced

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Grades 3-5

	perspective to make informed decisions. ● I can work with my class and teacher using technology to explore possible solutions (e.g., digital interviews, surveys, online resources, video conferencing).
Digital Citizenship **Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.**	
a. Advocate and practice safe, legal, and responsible use of information and technology. *E1, E2 b. Exhibit a positive attitude toward using technology that supports collaborative learning, and productivity. *C2, D2, E6, E7 c. Demonstrate personal responsibility for lifelong learning. *E3, E4 d. Exhibit leadership for digital citizenship. *E5, E8	**a) Demonstrate the safe, responsible, and ethical use of technology.** ● I can identify safe and unsafe online practices by ✓ getting permission from a parent or teacher before sharing private information online ✓ knowing the difference between a real friend and an online friend ✓ leaving a site and telling an adult if I feel uncomfortable about anything I experience on the Internet ✓ protecting my passwords by not sharing them with others **b) Work cooperatively and collaboratively with others to produce a group project.** ● I can make positive and appropriate choices when using technology (e.g., computers, digital cameras, Internet) in a group. **c) Demonstrate personal responsibility when using digital tools** ● I am responsible for contributing to a safe online environment for myself and others. ● I use appropriate online manners. ● I am aware of cyber bullying issues and practice appropriate social networking in all settings. **d) Exhibit leadership for digital citizenship** ● I can identify and use appropriate ways to share and publish pictures, stories, or projects that reflect positively on me, my school, and my community. ● I can respect other's intellectual property by practicing fair use and copyright laws. ● I can contribute to a project that will benefit my class, school, or community (e.g., school announcement using digital tools, or public service announcement podcast).

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 3-5

Technology Operations & Concepts **Students demonstrate a sound understanding of technology concepts, systems, and operations.**	
a. Understand and use technology systems. *A1, A2, D2 b. Select and use applications effectively and productively. *A2 c. Troubleshoot systems and applications. *A5 d. Transfer current knowledge to learning of new technologies. *D2, D3	**a) Demonstrate an understanding of technology systems.** ● I know how to turn my computer on and log into it. ● I can check my Airport icon to see if my computer is picking up a wireless signal. ● I can care for my schools' technology equipment. ✓ I can carry my laptop or digital device safely. ✓ I keep digital devices clean. ✓ I can make sure equipment is ready for the next student or class. ✓ I can properly return my digital device to its cart or storage area. ✓ I can check to see that my device is properly connected to recharge its battery. ● I am improving my computer skills ✓ I can click and drag. ✓ I can use a mouse or track pad to open applications. ✓ I can name or rename a document. ✓ I can save a document to a designated location (desktop, flash drive, server, or cloud). ✓ I can force quit a non-working application. ✓ I can display keyboarding skills (e.g., home row technique, striving for 20 words per minute with minimal errors). **b) Select and use appropriate digital applications.** ● I can open a web browser and use a website. ● I can take a photo or capture a movie using a digital camera or video recorder and manipulate the content using Photo Booth, iMovie, Preview, or iPhoto. ● I can use a word processing application to type words and add clip art. ● I can use a drawing application to create an original work of art (e.g., Comic Life, Word, Google SketchUp, Doodle Buddy, or other online drawing programs like ArtPad). ● I can record my voice using digital tools (Photo Booth, GarageBand, iMovie, VoiceThread, Podbean, and recording apps on iPods and iPads). **c) Diagnose and solve common technology problems.** ● I can un-mute and adjust the volume on my computer or digital device to a safe level. ● I can plug headphones into my computer or digital devices. ● I can quit a non-responsive application. ● I can recognize a low battery icon. ● I can communicate about technology problems using appropriate terms such as log-on, log-off, shutdown, quit, restart, etc.

*Alaska Content Standards, Student Core Technology Objectives 14 Grades 3-5

Grades 3-5

	● I can select a working and available printer to print my work. **d) Build on prior knowledge to learn new technologies.** ● I understand that basic actions (clicking, dragging) and commands (open, save) are consistent across computer platforms, applications and functions. ● I can take my photo in Photo Booth, so I know how to take my photo in Comic Life. ● I can record my voice in GarageBand, so I know I can record my voice in iMovie and PowerPoint.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 6-8

#Strand	#Educational Objectives Students will:
Creativity and Innovation **Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.**	
a. Apply existing knowledge to generate new ideas, products, or processes. *A1 b. Create original works as a means of personal or group expression. *A1, A2, A4, B2, D1 c. Use models and simulations to explore complex systems and issues. *B1, C1, C2, C3, D1, D2, D3 d. Identify trends and forecast possibilities. *E1, E2, E3	**a) Use digital tools to explore an area of interest and build on previous knowledge.** ● I can find information using technology (e.g., use a search engine to find information about a topic). **b) Illustrate and communicate original ideas and stories using digital tools and media-rich resources.** ● I can produce a digital product using technology (e.g., podcasts, wikis, blogs, websites) to create an advertising campaign for an original student invention/product. ● I can write, illustrate, and publish an original story/newsletter to share my ideas (e.g., word processing, PowerPoint, Keynote, SMART Board Notebook etc.). ● I can incorporate photographs and movies into my projects. ● I can use digital-imaging tools (such as Photoshop, iPhoto, Preview, etc.) to create and modify digital works of art. **c) Use models and simulations to explore complex systems and issues.** ● I can use of a variety of software programs (e.g., role-playing games, educational simulations, WebQuests, etc.) to simulate authentic life experiences. ● I can create 3D models using digital tools such as Google SketchUp. ● I can use online interactive simulations to understand systems, such as museum tours, science simulations, and augmented reality. **d) Use digital resources to identify trends and make predictions.** ● I can use educational simulations to identify and predict trends (e.g., using an online Stock Market simulation activity).

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 6-8

Communication and Collaboration **Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.**	
a. Interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media. *A2, D1, D2, D3 b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats. *C1, C3, D1 c. Develop cultural understanding and global awareness by engaging, with learners of other cultures. *C1, C3, D1 d. Contribute to project teams to produce original works or solve problems. *C1, C2, D2, D3	**a) Use a variety of technologies to produce a digital presentation or product in a collaborative group.** ● I can work with others to contribute or work independently to complete a multimedia project using word processing or applicable presentation software (e.g., Google Docs, blogs or wiki) that includes graphics, charts, tables, animation, and audio elements where applicable to enhance content or improve my presentation. ● I can present or publish my project in a safe environment to share my ideas and the findings with others. **b) Select and use appropriate digital formats to effectively communicate information and ideas to target audiences.** ● I can work with other students or independently on a document using Cloud Computing (e.g., Google Docs, blogs or wiki). ● I can create an autobiography, biography or fiction and nonfiction multimedia project that includes graphics, charts, tables, animation, and audio elements in a digital format to share with a specific group. **c) Develop cultural understanding and global awareness by engaging with learners of other cultures.** ● I can participate in national or global projects or events and network with others using video conferencing and/or Cloud Computing to collaborate with other cultures. **d) Contribute to group projects.** ● I can work with others to produce a digital presentation, project, or communication strand (blog, wiki, VoiceThread) about an educational topic. ● I can contribute data or images to an existing online project (e.g., Jason, GLOBE).

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 6-8

Research & Information Fluency **Students apply digital tools to gather, evaluate, and use information.**	
a. Plan strategies to guide inquiry. *C1, C2, b. Locate, organize, analyze, evaluate, synthesize and ethically use information from a variety of sources and media. *B1, B2, B3 c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks. *D2, D3 d. Process data and report results. *A5, C3	**a) Identify and research a topic, then collect data using digital resources.** ● I can research digital resources to find relevant information and create multimedia reports or presentations using reliable information or original sources collected from the Internet. **b) Select and apply digital tools to collect, organize and analyze data.** ● I can choose correct programs (e.g., Excel spreadsheet, Numbers, SMART Notebook, or online resources) to make graphs, charts and/or tally tables using newly collected data that helps me understand information and within a report show others how I collected my data and made my conclusions. ● I can navigate to reliable information and original sources on the Internet, save and organize my searches using bookmarks, links and folders so I can return to these sites to use as references in reports. ● I can correctly use digital information and cite several sources using footnotes within the report or by providing references at the end of my report or presentation. **c) Find relevant information related to a topic or event using digital resources.** ● I can evaluate the quality and reliability of online sources. ● I can find relevant and reliable information to contribute to a group report or create an individual report, presentation, WebQuest, or online inquiry to support my ideas or with the aid of a teacher. **d) Demonstrate understanding of data by articulating results.** ● I can make a graph, chart, or table as part of a report using reliable information or original sources that support my conclusions and/or draw on new discoveries.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 6-8

Critical Thinking, Problem Solving, and Decision Making **Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.**	
a. Identify and define authentic problems and significant questions for investigation. *B1, C1, D2 b. Plan and manage activities to develop a solution or complete a project. *C3 c. Collect and analyze data to identify solutions and/or make informed decisions. *C1 d. Use multiple processes and diverse perspectives to explore alternative solutions. *D1, D2, D3	**a) Identify a real-world problem for investigation using appropriate digital resources.** ● I can use digital tools (online searches, video conferencing with a scientist) to identify an I-search or science fair topic. **b) Use technology to plan and manage an investigation to complete a project.** ● I can use online tools to collect data for a project or investigation. ● I can use digital tools to organize my ideas for a project or investigation (e.g., word processor, spreadsheet, Thinking Maps, Kidspiration, websites). ● I can use digital tools to follow the steps of the writing process to come up with a concept, plan a storyboard, and write a script. **c) Use digital tools to gather data and apply information for problem solving and decision making.** ● I can organize and analyze the collected data to evaluate theories, test hypotheses, or make informed decisions using digital instruments and measuring devices on a topic (e.g., iPod/iPad apps, digital microscopes, SMART Response, spreadsheet). **d) Find different ways to solve problems from more than one point of view.** ● I can compare and analyze information using various methods (e.g., spreadsheets, charts or various graphs). ● I can use various digital tools to analyze the same data to gain different perspectives. ● I can go to more than one source for information to get a balanced perspective to make informed decisions. ● I can use technology (e.g., digital interviews, surveys, online resources, video conferencing) to explore possible solutions.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 6-8

Digital Citizenship **Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.**	
a. Advocate and practice safe, legal, and responsible use of information and technology. *E1, E2 b. Exhibit a positive attitude toward using technology that supports collaborative learning, and productivity. *C2, D2, E6, E7 c. Demonstrate personal responsibility for lifelong learning. *E3, E4 d. Exhibit leadership for digital citizenship. *E5, E8	**The "I can" statements span all grades. The rigor is embedded in the age appropriate content.** **a) Demonstrate the safe, responsible, and ethical use of technology.** ● I can create a positive online reputation by controlling the information shared by e-mail, text messages, chatting, blogs, photo and video sharing, and social media sites. ● I will leave a site and tell an adult if I feel uncomfortable about anything I experience on the Internet. ● I can create, protect, and use secure passwords for online sites. **b) Work cooperatively and collaboratively with others to produce a group project.** ● I can make positive and appropriate choices when using technology (e.g., computers, digital cameras, Internet) in a group. **c) Demonstrate personal responsibility when using digital tools** ● I am responsible for contributing to a safe online environment for myself and others ● I use appropriate online manners ● I am aware of cyber bullying issues and practice appropriate social networking in all settings **d) Exhibit leadership for digital citizenship** ● I can identify and use appropriate ways to share and publish pictures, stories, or projects that reflect positively on me, my school, and my community. ● I can respect other's intellectual property by practicing fair use and copyright laws. ● I can be responsible and respectful in the digital world by maintaining a positive digital presence.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 6-8

Technology Operations & Concepts **Students demonstrate a sound understanding of technology concepts, systems, and operations.**	
a. Understand and use technology systems. *A1, A2, D2 b. Select and use applications effectively and productively. *A2 c. Troubleshoot systems and applications. *A5 d. Transfer current knowledge to learning of new technologies. *D2, D3	Practice safe, legal, and responsible use of information and technology. **a) Demonstrate an understanding of technology systems.** ● I can access my student PowerSchool/PowerStudent account. ● I can care for my schools' technology equipment. ✓ I can carry my laptop or digital device safely. ✓ I keep food and liquids away from digital devices. ✓ I can make sure equipment is ready for the next student or class. ✓ I can properly return my digital device to its cart or storage area. ✓ I can check to see that my device is properly connected to recharge its battery. ● I am improving my computer skills ✓ I can use a mouse or track pad (right click or control click) to access the contextual menu. ✓ I can identify and correctly use file type appends (e.g., .doc, .docx, .jpg, .mp3, .mov, .pdf). ✓ I can name or rename a document without losing the append. ✓ I can save a document to a designated location (desktop, flash drive, server, or cloud). ✓ I can find a document using search tools. ✓ I can force quit a non-working application. ✓ I can display keyboarding skills (e.g., home row technique, striving for 35 words per minute with minimal errors). ✓ I can copy and paste within and between applications. ✓ I can resize/downsize images for use in emails and other applications. **b) Select and use appropriate digital applications.** ● I can choose the web browser most appropriate for my needs. ● I can take a photo or capture a movie using a digital camera or video recorder and manipulate the content using Photo Booth, iMovie, Preview, or iPhoto. ● I can use a word processing application's tool bars to efficiently complete a project (e.g., formatting, drawing, WordArt, etc.) ● I can use a drawing application to create an original work of art (e.g., Comic Life, Word, Tux Paint, Doodle Buddy). ● I can record my voice using digital tools (e.g., Photo Booth, GarageBand, iMovie, and recording apps on iPods and iPads). ● I can create an original piece of music using GarageBand (incorporating loops, real

Grades 6-8

	instruments, and software instruments). **c) Diagnose and solve common technology problems.** ● I practice using safe volume levels when using digital devices. ● I can quit a non-responsive application. ● I can recognize a low battery and plug my device in to a power source. ● I can diagnose and solve connectivity problems by plugging my digital device into an Ethernet port when a wireless signal is not available. ● I can communicate about technology problems using appropriate terms such as log-on, log-off, shutdown, quit, restart, etc. ● I can diagnose and solve minor printer problems. **d) Build on prior knowledge to learn new technologies.** ● I understand that layouts (menu bars, tool bars) are similar across applications (Word, Google Docs). ● I understand that application commands (file>print, edit>copy, undo) are universal. ● I can use advanced operating system features (zoom, screen shot, setting personal preferences). ● I can use advanced keystroke shortcuts to increase productivity.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

Grades 9-12

#Strand	#Educational Objectives **Students will:**
Creativity and Innovation **Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.**	
a. Apply existing knowledge to generate new ideas, products, or processes. *A1 b. Create original works as a means of personal or group expression. *A1, A2, A4, B2, D1 c. Use models and simulations to explore complex systems and issues. *B1, C1, C2, C3, D1, D2, D3 d. Identify trends and forecast possibilities. *E1, E2, E3	**a) Use digital tools to explore an area of interest and build on previous knowledge.** ● I can apply my knowledge to express new ideas and demonstrate learning using technology tools to generate original digital media (e.g., word processing, spreadsheets and charts, presentations, graphics, digital, audio, and video productions). ● I can choose appropriate digital media to communicate ideas and evaluate the effectiveness of my choices. ● I can create and share information with online learning communities. ● I can pursue personal interests and extend my academic knowledge using digital media tools. **b) Illustrate and communicate original ideas and stories using digital tools and media-rich resources.** ● I can enhance the expression of my ideas with technology by selecting and using the structures and functions of art. ● I can apply design principles and elements (e.g., apply visually appealing layouts, colors, fonts, backgrounds, and timing in technology projects) to digital media to illustrate and communicate ideas. ● I can use media rich elements such as photos, sounds, and video to enhance ideas, art and stories. ● I can express new ideas and demonstrate understanding of these ideas through digital tools. ● I can use the writing process to express new understanding in a variety of digital media formats, including text, images, audio, animations, and video. ● I can create original works with technology as a means of personal or group expression. **c) Use computer models and simulations to explore complex systems and issues.** ● I can create, read, and graph complex data for understanding and/or to convey meaning and information. ● I can analyze complex systems, break them into simpler components and processes, and represent them with computer models and simulations. ● I can use computer models of real world systems (e.g., digital maps and globes, 2D and 3D models, computer games) to explore concepts.

Grades 9-12

	d) Use digital resources to identify trends and make predictions. ● I can collect data (e.g., for a science project or market trend), graph the results, and make reasonable predictions. ● I can examine current trends in technology and media, and consider how they may impact my personal and community life. ● I can analyze online information and develop presentations, models, and timelines that represent social, technological, and scientific changes. ● I can combine principles and subject matter from multiple disciplines (e.g., math, science, social studies, arts, music) with technology.
Communication and Collaboration **Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.**	
a. Interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media. *A2, D1, D2, D3 b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats. *C1, C3, D1 c. Develop cultural understanding and global awareness by engaging, with learners of other cultures. *C1, C3, D1 d. Contribute to project teams to produce original works or solve problems. *C1, C2, D2, D3	**a) Use a variety of technologies to produce a digital presentation or product in a collaborative group.** ● I can work with a partner or team to record original stories using digital tools (e.g., GarageBand, Photo Booth, or other audio and video programs.) ● I can use digital communication tools (e.g., email, instant messaging, texting, shared documents and social networking) to collaborate with others. **b) Select and use appropriate digital formats to effectively communicate information and ideas to target audiences.** ● I can make informed choices from a variety of digital media tools to communicate information and ideas to different audiences independently or with a small group. (e.g., collaborative online documents, blogs, wikis, photo, or video sharing) **c) Develop cultural understanding and global awareness by engaging with learners of other cultures.** ● I can create and publish online content that demonstrates understanding of global awareness, historical periods, and cultural perspectives. ● I can use a variety of digital communication tools to connect with learners of other cultures to develop cultural and global awareness. ● I can make media-rich presentations about my school, state, or country to share my culture with global audiences. **d) Contribute to group projects.** ● I can work cooperatively in my group to co-produce a digital presentation (e.g., Google Docs, VoiceThread, PowerPoint, iMovie, Google Earth, etc.) about what my class is studying.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 9-12

Research & Information Fluency **Students apply digital tools to gather, evaluate, and use information.**	
a. Plan strategies to guide inquiry. *C1, C2, b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media. *B1, B2, B3 c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks. *D2, D3 d. Process data and report results. *A5, C3	**a) Identify and research a topic, then collect data using digital resources.** ● I can plan and research a topic using online databases (e.g., CQ Researcher, Digital Pipeline, Facts on File: World News Digest, Literature Research Center, Newsbank: America's Historical Newspapers, Opposing Viewpoints, World Book Online, etc.) and Internet searches as well as seeking help from staff members. ● I can use effective search strategies to find information online. ● I can assess when it is useful to use different search engines (e.g., Google, Bing, WolframAlpha, etc.) and strategies to locate different kinds of information. ● I can use multiple key words, phrases, synonyms, and alternative words to refine and revise searches of digital information. **b) Select and apply digital tools to collect, organize, and analyze data.** ● I can select digital tools or resources to plan or guide inquiry (e.g., mind-mapping software to visually organize concepts). ● I can ethically research, select, evaluate, organize, and synthesize digital information from a variety of sources and media appropriately (e.g., use social bookmarking and annotation tools to research, share, and annotate websites, or use online bibliography tools to catalog online resources). ● I can navigate personal, local network, and online storage systems to save, organize, retrieve, and share my data. **c) Find relevant information related to a topic or event using digital resources.** ● I can analyze search results to identify and focus upon the most relevant information. ● I can find, evaluate, and select appropriate digital sources of information from a variety of resources. ● I can use social tools (e.g., Diigo, Delicious, Google Docs) to gather and share information. **d) Demonstrate understanding of data by articulating results.** ● I can visually display data using spreadsheets and then build charts and graphs from that data.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 9-12

Critical Thinking, Problem Solving, and Decision Making **Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.**	
a. Identify and define authentic problems and significant questions for investigation. *B1, C1, D2 b. Plan and manage activities to develop a solution or complete a project. *C3 c. Collect and analyze data to identify solutions and/or make informed decisions. *C1 d. Use multiple processes and diverse perspectives to explore alternative solutions. *D1, D2, D3	**a) Identify a real-world problem for investigation using appropriate digital resources.** ● I can define authentic problems and form questions to investigate, analyze, and develop solutions to present projects using digital tools and resources. **b) Use technology to plan and manage an investigation to complete a project.** ● I can develop and refine a range of questions and keywords to frame searches for new understanding. ● I can pose questions and investigate answers beyond the collection of facts using digital resources. ● I can organize information using a variety of technology tools so that it is useful and meaningful to me and others. **c) Use digital tools to gather data and apply information for problem solving and decision making.** ● I can use digital tools and resources to evaluate different perspectives to come to an informed decision. ● I can monitor electronic information resources and assess for gaps and weaknesses. ● I can evaluate digital information from sources on the basis of accuracy, validity, timeliness, and social and cultural context. **d) Use digital resources to explore alternative methods, viewpoints, and solutions to problems.** ● I can identify conflicting information, bias, points of view, and misconceptions to make sense of information from a variety of digital resources. ● I can use online databases (e.g., EBSCO Host, Opposing Viewpoints in Context, Facts on File: Issues and Controversies) and digital media (e.g., Discovery Learning, Newsfeeds, blogs, Intel Thinking Tools) to analyze complex issues, and explore opposing viewpoints to support my position.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
Grades 9-12

Digital Citizenship **Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.**	
a. Advocate and practice safe, legal, and responsible use of information and technology. *E1, E2 b. Exhibit a positive attitude toward using technology that supports collaborative learning, and productivity. *C2, D2, E6, E7 c. Demonstrate personal responsibility for lifelong learning. *E3, E4 d. Exhibit leadership for digital citizenship. *E5, E8	**The "I can" statements span all grades. The rigor is embedded in the age appropriate content.** **a) Demonstrate the safe, responsible, and ethical use of technology.** ● I can participate safely in digital communication and online communities by recognizing and avoiding risky or illegal behaviors. ● I can recognize and respond responsibly to inappropriate contact or communication. ● I can limit the personal and private information I share in electronic communication and interaction. ● I can participate in digital communities and access online resources securely by creating strong passwords, and safeguarding private information. ● I can ethically and legally acquire digital information and cite resources to give appropriate credit to creators. **b) Work cooperatively and collaboratively with others to produce a group project using technology tools.** ● I can model conduct that supports collaboration and positive relationships. ● I can maintain a collaborative and productive digital learning environment with other learners, teachers, and resource experts. ● I can seek and respect divergent perspectives when using digital tools for information gathering, assessment, and discussion. ● I can use technology tools to participate in connected learning and communicate with others in a manner that respects the ideas, opinions, and creative works of others. ● I can integrate original digital content (text, audio, graphics, and video) contributed by multiple team members to create and share collaborative projects. **c) Demonstrate personal responsibility when using digital tools.** ● I can practice and advocate for the safe, legal and responsible use of technology. ● I can maintain and protect my personal data. ● I can participate in the exchange of ideas within a digitally connected learning community (e.g., contribute constructively to blogs, wikis, chats or discussion forums). ● I can use technology devices at appropriate times to support learning and communication during school hours. **d) Exhibit leadership for digital citizenship.** ● I can advocate and demonstrate new ways to incorporate emerging technologies for

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	learning and collaboration. ● I can respond appropriately when others violate ethical principles in their use of digital media or communications. ● I can actively manage shared digital information to maintain a positive online reputation, and to reflect positively on my school and community. ● I can model respect for creative works when creating and sharing digital media. ● I can respond appropriately to digital communication that harasses, intimidates, threatens, bullies, or discriminates against me or another individual or group.
Technology Operations & Concepts **Students demonstrate a sound understanding of technology concepts, systems, and operations.**	
a. Understand and use technology systems. *A1, A2, D2 b. Select and use applications effectively and productively. *A2 c. Troubleshoot systems and applications. *A5 d. Transfer current knowledge to learning of new technologies. *D2, D3	**a) Demonstrate an understanding of technology systems.** ● I can choose the appropriate digital devices (e.g., mobile computing devices, headphones, microphones, cameras, displays, probes and sensors, etc.) and be able to configure the devices for proper function and use. ● I can choose appropriate online learning and collaboration (e.g., GoogleApps, blogs, wikis, Ning) tools to achieve learning and project goals. ● I can create, access, and maintain online accounts for digital learning and communities. **b) Select and use appropriate digital applications.** ● I can choose appropriate software applications when integrating multiple media with my assignments and projects (e.g., combine written script, photos, video clips, and recorded voice to produce a multimedia report). ● I can select appropriate online resources for locating and managing project information, and creating and sharing digital media (e.g., locate, organize, and credit public domain or Creative Commons licensed images, audio and video) to incorporate into multimedia projects. **c) Diagnose and solve common technology problems.** ● I can use the help menu, online support, and search public forums to answer questions and accomplish tasks with software applications and digital devices. **d) Build on prior knowledge to learn new technologies.** ● I can use knowledge of current technologies to assist me in learning to use new devices and software (e.g., use familiar keyboard shortcuts or recognizing similar hardware and software controls and interfaces). ● I can discover and explore new digital resources, and apply that media to pursue learning goals.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades K-2

Common Applications	K	1	2
Word Processing (Word or other document creation tools)	• Type names using correct upper and lower case letters. • Type a letter of the alphabet and insert a clip art beginning with that letter. • Use the drawing tools to draw circles, triangles, squares, and rectangles. Use the fill tools to fill the shape with a specific color (e.g. color of the week, pattern, or self choice).	• Take a digital picture and write one to three sentences describing the picture. • Write own pattern book based on a picture book they've read together in class (*Brown Bear, Brown Bear*; *The Very Hungry Caterpillar*; *The Important Book*). Depending on the time of year, the teacher may provide a template for students to fill in. • Use the drawing tools and text boxes to show a math fact family.	• Take several pictures and write captions related to the pictures for each. • Use a graphic organizer or Thinking Map to form a topic sentence with three supporting details. • Write and publish poetry. Illustrate with clip art. • Use the drawing tools and text boxes to show the results of an experiment.
Presentation Tools (PowerPoint or other digital presentation tools)	• N/A	• From a template, use drawing tools to create pictures for parts of a story. (*Where the Wild Things Are* @ Discovery Streaming)	• From a template, students create a slideshow describing themselves (i.e. family, hobbies, and/or favorites).
Spreadsheets (Excel, Google or other spreadsheets)	• As a whole group activity, graph birthday months, favorite candy bars, favorite colors, etc.	• As a class, record the temperature over the course of a week, month, or school year. • As a class, record each student's state of birth and create a graph to display the data.	• As a class, create an excel spreadsheet recording each student's favorite dinosaur. Collect data from another class and compare. Create a graph to display the data.

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades K-2

Common Applications	K	1	2
Digital Camera	• Have each student choose a letter. Then, go on a walk around the school or in the neighborhood. When the child finds something that begins with that letter, take a picture of the child with that object. Use the pictures to create a class alphabet chart.	• Take a picture of self or a classmate and write a few sentences about the picture. • Take pictures of various items around the room to show whole number representations.	• Take a picture of self or a classmate and write a biography or autobiography. • Take pictures of various representations of fractions.
Comic Life	• N/A	• Create a folder with images to use in a whole group alphabet activity. Students take turns selecting a picture from the image library, selecting a bubble, and typing the appropriate alphabet letter to match the image.	• Use a personal picture from a picture folder (iPhoto or taken in Photo Booth) and use the text bubbles to tell a story about himself/herself.
GarageBand	• N/A	• Explore Magic GarageBand. • Play each of the GarageBand music genres. Add, subtract, and change instruments. • Display the musical tracks of the Magic GarageBand song. • Use the Podcast option to record students' reading fluency.	• Create a piece of music using GarageBand loops. Add student voice. Send the song to iTunes. • Use the Podcast option to record student voice(s) in a group project (Alaska geography and history, salmon life cycles, Athabascan native people's facts and history).
Google Earth	• The teacher will locate Fairbanks, Alaska, and as a group the class will discuss familiar locations. • As a class locate their school.	• Use Google Earth to explore the Earth for land and water forms. Ask students to notice how much water there is in proportion to land. • Dictate their address to the teacher who then types the address into Google Earth and creates a placemark.	• Use Google Lit Trips to explore a book. • Enter their addresses in Google Earth and "fly to" their homes. • Create placemarks for their home and school and make a path between them.

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades K-2

Common Applications	K	1	2
iMovie	• N/A	• N/A	• Demonstrate the use of iMovie to make a class movie, involving students in the choice of transitions, music, and titles.
iPhoto	• Use a camera to take pictures and download photos to iPhoto. • Take photos of living and non-living things in the environment. • Demonstrate using iPhoto to create a class calendar that incorporates major holidays and student birthdays.	• Contribute photos for a class slide show. • Use a camera or image capturing device to document the growth cycle of a plant to contribute to a class slide show.	• Make own slide shows. • Take nature photos and make a slide show showing observable similarities and differences. • Make a slide show of photos that demonstrate symmetry.
Photo Booth	• Take a picture of self using one of the effects and then drag the photo into a type of word processor to add their names.	• Take two pictures of self using different effects. Using a word processor, students will type this sentence: "This is me when I'm feeling ____, and this is me when I feel _____". Import the picture for each part of the sentence.	• Produce a movie by making a popsicle stick puppet and narrating a story. • Take pictures of self and use them to create cards or other multimedia with iPhoto or a type of word processor.
Tux Paint	• Match pictures with letters. • Insert specific numbers of objects and match with the correct number.	• Draw a picture and write a complete sentence using a capital letter to begin the sentence and correct ending punctuation.	• N/A
Kerpoof Note: For all Kerpoof lessons refer to lesson plans at http://www.kerpoof.com/teach?c=lesson_plans	• Use the "Patterns" lesson plan at the Lesson Plan site to create colorful patterns with kindergarten and pre-k students.	• Create a sports-related picture and story (use the "Celebrate Sport" lesson).	• Using a seasonal background in Make a Picture, students create a seasonal picture with at least 3 speech bubbles that describe their favorite season (use "Celebrate the Seasons" lesson plan).

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

*Scope and Sequence: Grades K-2

VoiceThread	• Complete the sentence "I have a dream...." and draw a picture of the dream. Student then explains his/her dream.	• Draw and write what students are thankful for and have them explain orally why they are thankful for that item.	• Choose a person who has made a difference in the world. Student draws a picture of that person and explains how they made a difference.
Common Applications	**K**	**1**	**2**
Ipod Touches (Names of iPod Apps are in italics)	• Use *Pocket Phonics* to practice and reinforce letter and number recognition.	• Record students reading orally. Have them listen for oral reading fluency.	• Use *Coin Math* and *Telling Time* for reinforcement in math.
SMART Board	• Learn the importance of orienting and adding pages while using the SMART Board. Students will reinforce correct letter and number formation using the SMART Board Gallery of letters.	• Develop an understanding of how to use the SMART Board pen and eraser tools and clear a page.	• Develop an understanding of SMART Board tools like highlighter, arrows, shapes, magic pen, and screen capture.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 3-5

Common Applications	3	4	5
Word Processing (Word or other document creation tools)	• Take digital pictures of a community and write six facts. • Use the drawing tools to draw parts of a plant, group the parts, and use the text tool to describe the function of each part. • Write a paragraph explaining the water cycle and illustrate with clip art. • Use drawing tools to demonstrate examples of flip, translate, rotate.	• Write one paragraph with a topic sentence, three supporting details and a conclusion. • Use the drawing tools to draw insects, group the parts, and use the text tool to write a summary about their insect. • Write a rebus paragraph using clip art. Format the clip art to be "tight" with the text.	• Write a three-paragraph essay on a historical topic (e.g., the Constitution, Revolutionary War, Civil War) using details to support the main idea. • Create a bulleted list of the battles in the Revolutionary or Civil War. • Use the drawing tools to draw the parts of a volcano and show the types of plate tectonics (divergent, convergent, transformation). Group the parts and arrange the picture behind the text. Write a paragraph describing plate tectonics on top of the picture.
Presentation Tools (PowerPoint or other digital presentation tools)	• Take digital pictures of the different forms of water (rain, fog, clouds, hail, sleet, snow, frost, ice). Import into a presentation and write captions. • Take pictures of the moon phases. Create a presentation from those pictures.	• Build a digital presentation that identifies and describes each planet.	• Build a presentation that identifies the types of volcanoes and their main features. • Incorporate clip art and narration. • Students will cite sources.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 3-5

Common Applications	3	4	5
Spreadsheets (Excel, Google, or other spreadsheets)	• As a class, record the amount of daylight for Fairbanks and graph it. • Create a spreadsheet and graph on eye color. Use the "AutoSum" button to calculate the sum.	• Create a list of family members with addresses and phone numbers. • Create a spreadsheet and graph the number of moons around each planet. Use the "AutoSum" button to calculate the total number of moons. • Use the pull down menu on the "AutoSum" button to show the average number of moons on all the planets.	• Students will interview other students and create a teacher selected type of graph. • Create a spreadsheet entering the data showing the number of casualties in the different Civil War battles, and then create a graph.
Digital Camera	• Take pictures to represent classroom activities for the class newsletter.	• Create a trading card with information about themselves and insert a picture.	• Take a walk around the school taking pictures of important areas. • Have students draw a map of the school, importing the pictures to show their locations.
Comic Life	• Use pictures and caption bubbles to develop a conversation between two characters from an event in Fairbanks history.	• Use pictures with captions to develop a conversation between two characters from an event in Alaskan history.	• Use pictures with captions to develop a conversation between several historical characters displaying an understanding of an event in United States history.
GarageBand	• Create a class project using GarageBand to produce a podcast that incorporates a voice track and sound track to demonstrate an understanding of Fairbanks history. • Create a class song that incorporates a voice track and sound track to demonstrate an understanding of multiplication facts or the steps of long division.	• Working in pairs, use GarageBand to produce an enhanced podcast that incorporates multiple voice tracks, sound tracks, and images to show an understanding of Alaska's history, geography, or Native cultures. • Use GarageBand to produce an enhanced podcast that incorporates voice tracks and sound tracks to demonstrate an understanding of our solar system and celestial bodies.	• Working individually or in pairs, create a podcast using GarageBand to show an understanding of important issues in United States history. • Use GarageBand to produce an enhanced podcast that incorporates voice tracks and sound tracks to demonstrate an understanding of human body systems.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 3-5

Common Applications	3	4	5
Google Earth	• Using waypoints, create a placemark for important places in Fairbanks history. In the placemark, include a description of the place. • Create placemarks, make a path between them and measure the distance between two points.	• Use Google Earth to explore the planets and constellations. • Create a placemark for an important Alaska location. Add a description and image. • Use GoogleEarth to explore the Ring of Fire.	• Use Google Earth to trace the pathway of explorers. • Create a placemark for two important Westward Expansion locations. Add a description and image for each. • Use Google Earth to explore the ocean.
iMovie	• Create a movie with still images using titles, transitions, narration, and music. • Write a short story. Then, using Claymation, take digital pictures with a document camera to create a narrated story in iMovie. • Take photos on a field trip and use the photos to make a movie.	• Create a movie with video images. • Create a playground safety video. Write scripts for 20 second clips about each piece of equipment. Take video using FLIP cams; create title and voice over for video; share all videos to iTunes so that teachers in the building can show videos to students.	• Create a movie with a combination of still and video images and effects such as green screen and movie-in-a-movie and prepare it for a contest (example: the ASTE.ORG iDidaMovie). • Create an advertisement for a product.
iPhoto	• Edit photos including cropping and rotation. • Use the original and cropped versions of a photo to create an image that can be used to promote discussion and writing about perspective (e.g., flower and parts of a flower). • Use the card feature in iPhoto to create Mother's Day cards.	• Create a book in iPhoto to make book reports with relevant facts and captions. • Make a calendar to record phases of the moon to enhance moon journals.	• Create a book or slide show about one of the grade level scientists and their field of study.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 3-5

Common Applications	3	4	5
Photo Booth	• Working in small groups, students will draw pictures of a story, take snapshots of the pictures using Photo Booth, use a word processor to sequence the story, then narrate it using Photo Booth movie feature.	• Create a classroom "dictionary" where students take pictures of the dictionary and use a word processor to create definitions for themselves along with their pictures. • When teaching action verbs, have students take pictures of themselves actually doing an action verb, and use a word processor to illustrate the verb.	• Write moon poems and then narrate the stories using Photo Booth's Moon backdrop to record their stories with the movie feature.
Kerpoof Note: For all Kerpoof lessons refer to lesson plans at http://www.kerpoof.com/teach?c=lesson_plans	• Use Kerpoof's online chat and group message boards to critique students' drawings. • Use Kerpoof online chat and group message board to teach basic social networking skills.	• Work with a partner to research a pair of nocturnal and diurnal animals. Students create a picture using Kerpoof Buddy Draw that shows the animals. Students label animals and present them to the class. (Use "Nocturnal and Diurnal Animals" lesson plan).	• Create a Kerpoof Movie that illustrates rotation (Use "Crazy Angles" lesson plan).
VoiceThread	• Take pictures of historical buildings in Fairbanks. In a VoiceThread, explain the significance of the buildings. Invite people from the community to contribute.	• Take pictures of invasive and indigenous plants and describe properties of each.	• Create images of human body systems and explain their function.
Ipod Touches (Names of iPod Apps are in italics)	• Learn contractions with *Contractions*.	• Use *Sum Stackers* for reinforcing addition facts.	• Read a passage for oral reading fluency. Students reflect on their reading. After reflection, students record the same passage, focusing on improving their oral reading fluency. • Use the *States and Capitals* game to review and practice the location of the states and the capitals for each state.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 3-5

Common Applications	3	4	5
SMART Board	• Learn and use punctuation in a sentence while using a SMART Board to reinforce Language Art skills with the Essentials for Educators English and Language Arts folder. Students will learn how to modify the line styles and insert sounds into a project.	• Use images from the Essentials for Educators English and Language Arts folder to make rebus stories, while learning to record activities.	• Continue to develop student understanding of how to use the images in Essentials for Educators to create multimedia projects.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 6-8

Common Applications	6	7	8
Word Processing (Word or other Document creation tools)	• Write a five-paragraph essay using details to support the main idea. • Create a narrative with an added illustration. • Write an explanation, inserting a graph for supporting evidence.	• Write a six-paragraph essay using details to support the main idea. • Write an explanation, inserting a graph for supporting evidence. • Create a poetry book with illustrations. • Interview a parent or other adult and include an imported picture of that person.	• Peers edit papers using the features of the Reviewing Toolbar (i.e. "Markup", "Comments", and "Track Changes"). • Create a chart showing the steps of meiosis and write an explanation based on the chart. • Write a story and include a picture used as a watermark. • Publish poetry anthologies of original art, and original photos to illustrate. • Write a research paper including a graph or chart, pictures, a bulleted list, and citations.
Presentation Tools (PowerPoint or other digital presentation tools)	• Build a presentation on an Interior ecosystem that describes producers, consumers, and food chains. • Incorporate own digital pictures, copyright free sounds, and clips. • Students will cite sources using Noodle Tools or similar site.	• Build a presentation that compares text and video versions of a book. • Incorporate appropriate video clips, narrations, and digital pictures, and follow copyright law. • Students will cite sources.	• Build a presentation that shows examples of media biases. • Incorporate appropriate video clips, narrations, hyperlinks, digital images, etc. • All copyright laws will be followed. • Students will cite sources.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 6-8

Common Applications	6	7	8
Spreadsheets (Excel, Google, or other spreadsheets)	• Using test scores, such as spelling tests, graph the data from the previous quarter using three different types of graphs. Describe in writing which graph is best and why. • Write simple formulas for adding and averaging columns.	• Use real time data such as temperatures in the local area to create graphs and predict trends and patterns. • Create a three-sheet workbook. Each worksheet will represent a separate country. Census data will be used to show income from various exports or population rates over 10 years. A graph will be included on each worksheet. • Students will write simple formulas for adding and averaging columns.	• Create a five-sheet workbook showing the mean and sum of casualties from various battles in the following wars: Revolutionary, Civil, WWI, and WWII. Each war will be a separate worksheet. The fifth sheet will have totals and averages linked to the four previous worksheets. Create a graph for each worksheet.
Digital Camera	• Use a digital camera to document a sequence of events such as an experiment. • Interview a parent or other adult and include an imported picture of that person.	• Using multiple technology tools to create a published piece of work and prepare it for a contest (e.g., the ASTE.ORG iDidaPhoto).	• Create a Living History of a local person and include several pictures. • Use multiple technology tools to create a published piece of work.
Comic Life	• Use pictures with captions to develop a conversation between several historical characters displaying an understanding of an event from an ancient civilization. • Use pictures with captions to identify and describe the characteristics of vertebrates. • Explain a mathematical concept with drawings and written details.	• Use pictures with captions to develop a graphic book with demographic information (population, geographic features, important historical events, natural resources, industry etc.) about a foreign country. • Use pictures and captions to write a sequence of steps for a task (e.g., how to change a tire, how to build a rocket, how to find a waypoint using a GPS).	• Use pictures with captions to develop a graphic book about significant events in a decade of United States history. • Create an original graphic short story for publication.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 6-8

Common Applications	6	7	8
GarageBand	• Working individually or in pairs, create a podcast using GarageBand to reenact an important event from the studies of Ancient Civilizations of the world. • Create a public service announcement and prepare it for a contest (e.g., the ASTE.ORG iDidaPodcast).	• Create a group public service announcement using GarageBand and incorporate several tracks for music and voice. • Create a podcast incorporating original narration, poetry, and music to define and provide examples of literary devices. • Create, record, and prepare an original piece of music for a contest (e.g., the ASTE.ORG iDidaTunes).	• Working individually or in pairs, create an enhanced podcast using GarageBand to demonstrate an understanding of an era of United States history between the years of 1763-1945. • Working individually, create an enhanced podcast reviewing a book that the student has read.
Google Earth	• Use Google Ancient Rome for studying and researching Ancient Rome. • Utilize Google Mars for study of Mars surface. • Create a Google Lit Trip with five placemarks for a book being read for class. Add a description and image for each.	• Learn to use longitude and latitude in Google Earth. • Use Google Earth to locate areas of current events for research or discussion. • Create a Google trip covering aspects of location, place, human and environmental interaction, movement, and region issues for the different continents. • Use Google Earth as a presentation tool. • Explore different geological aspects of earth using Google Earth.	• Use Google Earth to locate areas of current events for research or discussion. • Create a Google trip with placemarks showing the capitals and seven other important locations for a state. Include a description, with a picture or video for each. • Overlay historical maps and create placemarks to discuss how events unfolded during a given time period of U.S. History. • Create hyperlinks for references. • Use some basic formatting tools like Bold, Underline, and Italics.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 6-8

Common Applications	6	7	8
iMovie	• Create a movie with a combination of still and video images which includes titles, sounds bites, and music shorts. • Create an iMovie Trailer to promote a book.	• Create reports using multiple iMovie effects. For example, students will create a public service announcement. • Create a video dictionary for vocabulary words that will be used throughout the year.	• Create reports using advanced iMovie setting to enhance multimedia reports using still images, voice over, transitions, titles, sound bites, Ken Burns animation, music, loops, and special effects.
iPhoto	• Download copyright free pictures to iPhoto, modify photos, and use these pictures to support written work such as Word documents or PowerPoint presentations. • Find and add location information to photos to create a clickable map.	• Create a presentation about a country. Save the presentation in jpg format. Import it into iPhoto and create a slideshow with copyright free music from that country.	• Create a "team" yearbook with statistics about the team such as favorite food, favorite book, and favorite movie.
Photo Booth	• Use one of the special effects backdrops to narrate and act out a story to create a multimedia report with Photo Booth's movie feature.	• Use 30 second movie clips from Discovery videos to enhance a report using the movie as a backdrop.	• Use 30 second movie clips from Discovery videos to construct own narratives about an assigned topic and voice over the original Discovery clip.
Kerpoof Note: For all Kerpoof lessons refer to lesson plans at http://www.kerpoof.com/teach?c=lesson_plans	• Create "A Fairy Tale with a Twist" by reading the original *Three Little Pigs* followed by *The True Story of the Three Little Pigs*. Using this model, students create their own twisted fairy tales using the Make a Story section of Kerpoof. (Use "Fairy Tales with a Twist" lesson plan).	• N/A	• N/A
VoiceThread	• Use VoiceThread as a tool to narrate a timeline for a biography of a famous person.	• Explain parts of cells. Students will invite each other to comment on their VoiceThread.	• Write individual steps to a problem and verbally explain how the problem was solved.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 6-8

Common Applications	6	7	8
Ipod Touches (Names of iPod Apps are in italics)	• Use *Countries* to gather information about different countries to compare and contrast information between them.	• Use *Google Earth* to locate a region that has been studied and take a screen shot of the location. Use *Comic Touch* to import the picture and write a description about the region (history, economics, science etc.)	• Use *Planets* to explore the following: location, visibility, rise and set times of the moon and planets; location of constellations; current and future phases of the moon; 3D Globe View of moon and planets; fact sheets for moon and planets.
SMART Board	• Create a map key for a map of the world using the SMART Board Gallery of maps, flags, and landmarks.	• Learn to develop peer assessment activities using the multimedia resources for the Essentials for Educators folders.	• Continue to learn to develop peer assessment activities using the multimedia resources for the Essentials for Educators folders.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

Computer Skills: Grades K-2

Common Applications	K	1	2
Basic Computer	• Use input devices such as keyboard, mouse, track pad and touch screen to interact with applications. • Use navigation buttons to access main menus. • Use the “File-Save" and “File-Quit" command.	• Become familiar with touch screen, track pad gestures, and mouse functions. • Use keyboard functions such as space bar, return, tab, escape, shift, and arrow keys. • Use right and left hands for home row key placement.	• Create new folders to organize files. • Navigate to the "Documents" folder to find and open a document. • Know keyboard letters at a basic level; goal 5 wpm. • Use number keys, lower case and upper case letters, shift, return, space bar, delete, tab, caps lock, two finger scroll, and keyboard short cuts. • Print a document.
Internet and Research	• Interact with websites (provided by teacher) using mouse or touchpad.	• Open a web browser, enter a simple URL, and navigate between web pages with simple menus or icons.	• Bookmark websites and use basic browser buttons such as forward, back, home, and reload. • Follow simple text hyperlinks and navigate drop-down menus.
Digital Citizenship and Safety	• Care for and appreciate equipment. • Be introduced to school appropriate media and applications.	• Begin to identify safe and unsafe online practices.	• Discuss cyber bullying issues. http://www.simplek12.com/internetsafety • Before sharing private information online, get permission from a parent or teacher.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

Computer Skills: Grades 3-5

Common Applications	3	4	5
Basic Computer	• Save to local and remote storage. • Use home row key touch typing skills; goal 10 wpm. • Use keyboard shortcuts: Undo, Cut and Paste. • Capture screen shot images. • Select a printer on the network.	• Manage and rename files in nested folders. • Use spotlight or search tool to locate a document. • Use home row key touch typing skills; goal 15 wpm. • Navigate to the "Applications" folder to find and open specific application.	• Transfer files between school and home using PowerSchool, web-based storage, or removable media. • Adjust system preferences to manage settings and peripherals. • Increase keyboarding speed; goal 20 wpm.
Internet and Research	• Perform basic Internet searches using key words to find content and images.	• Perform basic research on specific topics using search engines. • Identify and cite appropriate resources for papers or projects.	• Use tab browsing to increase browsing efficiency. • Evaluate quality and reliability of online resources. • Use online help resources and documentation.
Digital Citizenship and Safety	• Develop awareness of intellectual property (e.g., by not copying other people's materials). • Identify ways to maintain privacy and stay safe in online environments.	• Respect fair use and copyright laws regarding online content and digital media. • Learn guidelines for good manners in cyberspace, including tips for email, instant messages, chat, social media sites, and message boards.	• Use critical thinking to protect personal and family information when visiting sites requesting private identity information.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

Computer Skills: Grades 6-8

Common Applications	6	7	8
Basic Computer	• Save, import and export documents, images, audio, and video in different file formats. • Increase keyboarding speed; goal 25 wpm.	• Turn work in using Powerschool. • Continue keyboarding skills to include additional key locations; goal 30 wpm.	• Save files to a cloud service such as Google Docs. • Continue keyboarding skills to include additional key locations; goal 35 wpm. • Understand the concept of how a database is useful to all aspects of computing (keywords, searching, etc.)
Internet and Research	• Use district library resources and online databases for researching topics.	• Perform advanced search techniques to find specific information. • Locate real-time data on the Internet, develop essential questions, plan collaboration, identify an audience, and communicate investigation results.	• Collaborate with peers on a project online. • Select digital tools to support collaborative authentic learning projects.
Digital Citizenship and Safety	• Create and use secure passwords for online sites. • Model respect for intellectual property rights. • Ethically acquire and use digital information.	• Identify factors that can negatively or positively impact online reputations.	• Create a positive online reputation by controlling the information shared by e-mail, text messages, chatting, blogs, photo and video sharing, and social media sites.

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 9-12

Common Applications	Language Arts
Word Processing (Word, Google Docs, etc)	● Create media-rich documents to show comprehension, interpretation, evaluation, and appreciation of novels or stories. Creatively apply layout, images, styles, headings, and fonts to enhance visual appeal. ✓ Compose a poem. ✓ Create a book report, brochure, flipbook, or script. ✓ Compose letters using appropriate templates (e.g., letter to an author or a literary agent, persuasion letter to a publisher). ✓ Write a script of a scene in a novel or play in a different style (e.g., write a scene in Shakespeare in modern English or "teen speak"). Use collaborative document sharing to have group members write and rehearse different parts using different colors. ● Demonstrate knowledge of word meaning using the tools in word processing by developing word identification strategies, and refine the understanding of textual features like sentence structure and spelling with the aid of word processing tools like the dictionaries or thesauruses. ✓ Write a glossary of terms. ✓ Create word tables or charts of synonyms, antonyms, roots, prefixes, suffixes or other information that build word meaning. ✓ Make a set of concentration cards to create a game of terms and definitions. ● Create an original research paper on a topic. ✓ Use the reviewing tools to track changes and drafts. ✓ Share and use commenting for peer and teacher review. ✓ Use tools to revise language, cite references, and perform word counts. ✓ Apply heading styles, and insert document elements such as table of contents, footnotes, and bibliography.

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*Scope and Sequence: Grades 9-12

Presentation Tools (PowerPoint, Google Presentations, SMART Notebook, etc.)	● Create digital projects using media tools like transitions, animations, fonts and graphics to enhance presentations that support learning and convey a point of view, while effectively employing the concepts of design, repetition, space and color. ✓ Design a travel brochure using references from parts of the story to support ideas in writing. ✓ Create a dossier on a character in a novel or story, pretend you are a foreign spy sent to report back to your team leader. ✓ Write a front page news story for a US newspaper or lead story for a foreign newspaper about a novel or story. ✓ Create a presentation that helps bring a character in a novel or story to life and helps others understand the social demands and personal fulfillment of the character. Use passages from the text to support your interpretation of the character's traits. ✓ Create a presentation that aids others in understanding how setting effects the development, actions, or outcome of a novel or a short story. ✓ Create a presentation that aids in understanding the era or social pressures of the times and how social conditions affect the outcome of the story or motivated the author. ✓ Employ and create effective presentations using media tools to enhance the project on a given topic. Examples: ❖ Career ❖ Persuasion ❖ Societal Issues ✓ Develop a presentation that compares versions of the same story or other points of view, use media tools to support the text. ✓ Develop a presentation in the form of a poem that demonstrates comprehension or expresses new points of view using design elements to support the text. ✓ Create a Jeopardy game of terms and definitions, context clues, or word origins. Use word processing tools like the dictionary or thesaurus incorporate images if needed.

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*Scope and Sequence: Grades 9-12

Spreadsheets (Excel, Google, etc)	● Develop spreadsheets, calendars, and time-lines to demonstrate an understanding of the places, cultures, time periods, philosophies, ethic issues, artistic styles and/or genres in literature. ✓ Create a calendar of events to show time lapses within a novel or story. ✓ Create a time-line with text boxes to include the following information: ❖ Dates different novels or short stories were written ❖ Author's motivations ❖ Social pressures that influenced the style ✓ Compile story reviews; transfer the pros and cons of the reviews to a spreadsheet to determine the strength or weakness of a novel. ✓ Compile sales data on a novel; determine the historical and current popularity based on sales. Determine if the novel will continue to be relevant to society in the future based on sales projections.
Digital Images (Photoshop, Illustrator, Publisher, InDesign, etc.)	● Use images to effectively communicate, support or reinforce a point of view, enhance understanding, or convey meaning. ✓ Create a book jacket using images to enhance the title. ❖ Inside the jacket flap add a novel or story summary ❖ On the back of the jacket include a personal book review with a passage from the text to support your view and a quote of a well-known book reviewer explaining why you support their point of view ✓ Create a novel or short story announcement including: ❖ Dates of event ❖ Characters ❖ Tension or rivalry within the text ❖ Sales pitch; if possible use a short phrase from the text and compelling statements ✓ Create a glossary of terms pairing nouns with images to enhance their meanings. ✓ Create a concentration game of terms and definitions using images and text. ✓ Using iPhoto, write and design a book

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*Scope and Sequence: Grades 9-12

Comic Life	● Create a cartoon or graphic novel with titles, panels, images, call-outs, and text to convey understanding of literature. Apply color, styles, fonts, and page layouts to creatively convey emphasis and meaning. ✓ Create a parody of a novel using images and dialog. ✓ Create a cartoon or graphic novel that demonstrates an understanding of the social or cultural influences of the characters in a novel or short story. ✓ Create a cartoon or graphic novel that demonstrates an understanding of the era or social pressures of the times and how social conditions affected the outcome of the story. ✓ Create a cartoon or graphic novel that demonstrates an understanding of the author's social or cultural motivations for the topic.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity
*Scope and Sequence: Grades 9-12

Audio Creation Software (GarageBand, Audacity, Myna, etc.)	● Create an enhanced video and/or audio podcast about a piece of literature. ● Create an enhanced video and/or audio podcast for a piece of original poetry. ● Create an enhanced video and/or audio podcast for a legend or myth. ● Create one minute radio advertisements for a novel or a story. ● Convert a novel or a story into a radio drama series podcast.
GIS Tools (Google Earth, Maps, GPS, etc.)	● Create virtual tours in Google Earth using place marks to demonstrate insight about the historical time periods or geographic regions in the literature's setting. ✓ Create place-marks using pictures and text to describe the setting and events in a piece of literature. ✓ Use map overlays (e.g., Ancient Greece for the Iliad and Odyssey) for places discussed in literature.
Video Creation Software (iMovie, MovieMaker, etc.)	● Develop a digital media project that incorporates sound, music, voice-overs, images, and video to appropriately communicate with different audiences for a variety of purposes. ✓ Create an infomercial for a local charity, group or event. ✓ Convert a novel or a story into a T.V. sitcom or drama series. Create a movie trailer or commercial about a novel. ✓ Interview a character in the novel or the author. ✓ Create a cooking show based on a novel; bring out character traits while demonstrating how to make a dish from the era. ✓ Create a spy movie that exposes the character's fault with a classic villain and hero; to add interest you may want to switch the roles making the villain the hero in the novel.
Online Study Guides	● Create flash cards with online resources (e.g., Quizlet, Quia, Scholastic.com) that include pictures from Flickr and/or creative common database to aid in vocabulary or concept development.
Video Conferencing	● Use video conferencing (e.g., Skype, Facetime, Elluminate Live) to interview an author or discuss a piece of literature with students in other different locations.
iPod and iPad Apps	● Use the audio, camera, and recording features to conduct author interviews. ● Use the audio features to access audio books. ● Use the record, text-to-speech, and speech-to-text features to interview others, record lessons or class lectures. ● Create documents and multimedia projects using available apps (e.g., Pages, Keynote, Google Docs, etc.) ● Use available apps to practice and improve grammar and vocabulary.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 9-12

Common Applications	World Languages
Word Processing (Word, Google Docs, etc)	● Create media-rich documents to demonstrate understanding of significant historical events. Creatively apply layout, styles, headings, and fonts to enhance visual appeal. ✓ Create a vacation travel brochure or newsletter on a given country. ✓ Watch and create a movie review of a foreign film. ✓ Create an advertisement for the film watched including movie title, name of theatre, show times, telephone number, address, and a map of how to get there.
Presentation Tools (PowerPoint, Google Presentations, SMART Notebook, etc)	● Create and deliver a multimedia presentation incorporating images, sound, text, color, video, and links to demonstrate understanding of world languages and cultures. ✓ Highlight unique holidays, customs, or societal issues. ✓ Present information about a country where the language is spoken.
Spreadsheets (Excel, Google spreadsheets, etc)	● Create spreadsheets and charts depicting demographic, geographic, and economic statistics relevant to countries and their cultures. ✓ Compile, chart, analyze, and discuss data researched by different students into collaborative spreadsheets. ✓ Collect data using forms to create class resource lists for studying world languages.
Comic Creation Software	● Create a story and turn it into comic layout. ✓ Make a graphic novel that demonstrates understanding of nouns, verbs, and grammar in the language studied.
Audio Creation Software (GarageBand, Audacity, Myna, etc)	● Record an autobiography in their given language using pictures they have from their life. ● Capture audio and images of native language speakers. Record translations of the conversation. ● Create audio podcasts of conversations to practice speaking in the language studied.
Google Earth and Google Maps	● Research a country with primary language studied. Identify cities, historical landmarks, geographic features, and other points of interest. Create and share Google Earth placemarks to create virtual tours of these features. ✓ Use Google Earth layers and/or streetview to view the museums, streets, capitals, and historic landmarks for the country. ✓ Collaborate with your ITT to use Google forms or spreadsheet mapper to generate media rich placemark sets.

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*Scope and Sequence: Grades 9-12

Video Creation Software (iMovie, MovieMaker, etc)	● Create a documentary about a given country using voiceovers on video, pictures and music. ✓ Produce commercials or public service messages in the language studied. ✓ Create a script and storyboard for a 2-3 minute video short. ✓ Record video of current events and narrate them in the studied language. ✓ Create English subtitles to translate the scenes in recorded video.
Online Study Guides	● Create digital flashcards with online resources (e.g., Quizlet, Quia, Scholastic.com) that include pictures from Flickr and/or creative common databases to study vocabulary, phrases, and grammar. ✓ Use Mango languages through the public library to practice conversational expression.
Video Conferencing (Skype, Facetime, etc)	● Arrange with a teacher to use video conferencing software to communicate with other students in different countries or towns and practice conversing based on a specific set of questions.
iPod and iPad Apps	● Communicate with students around the world. Instead of writing letters to other students have your students exchange emails. All student correspondence can and should be monitored by the teacher.
ePals	● Use Google Translate to learn vocabulary. ● Use voice recorder to practice oral assessments. ● Listen to podcasts and music in world languages. ● Use flashcard apps and digital phrasebooks to learn new vocabulary.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 9-12

Common Applications	Social Studies
Word Processing (Word, Google Docs, etc.)	● Create media-rich documents to demonstrate understanding of significant historical events. Incorporate maps, charts, tables, timelines, and images to effectively communicate the event's impact. Creatively apply layout, styles, headings, and fonts to enhance visual appeal. ✓ Write a series of news articles describing an event from various perspectives (e.g., the Iranian takeover of the American Embassy in 1979 as if you were an American newspaper, Iranian newspaper, Japanese newspaper, British newspaper). ✓ Create a tri-fold brochure about the place or the time period being studied. For example, create a brochure about China or about the Constitution. Include copyright free pictures, student drawn images, or student taken photos. ✓ Create a series of Facebook entries for a historical figure in a Word processing document.
Presentation Tools (PowerPoint, or other digital presentation tools)	● Incorporate text, images, videos, charts, and maps into digital presentations to demonstrate and describe important causes and turning points in history. When available, include primary sources. ✓ World History: cultural progress, inventions, wars, leaders and/or epidemic ✓ US History: Westward Expansion, wars, Federalism, Anti-Federalism and/or epidemics ✓ Alaska History: cultural impact, wars, laws, epidemic and/or leaders
Spreadsheets (Excel, Google spreadsheets, etc)	● Create a spreadsheet displaying data from historical, economical, political, social, or cultural events. Analyze the data using appropriate charts. ✓ Miles between stops on the Oregon Trail, Lewis and Clark Expedition, etc. ✓ Casualties in battles of a war ✓ Spread of epidemics ✓ Death rates ✓ Population growth ✓ Average life span ✓ Growth in use of automobiles or electronics ● Use a spreadsheet template to have students analyze their personal budget based on a potential job after high school. Use the spreadsheet to figure out their food budget and monthly menu planner.

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*Scope and Sequence: Grades 9-12

Comic Life	● Create a cartoon or graphic novel with titles, panels, images, call-outs, and text to convey understanding of historical figures or events. Apply color, styles, fonts, and page layouts to creatively convey emphasis and meaning. ● Create a dialogue between yourself and an important figure from an historical, economic, political, social, or cultural event to transmit the beliefs, values, behaviors and/or traditions of the time. Include the impact the figure had in the outcome of the event. Examples: ✓ President Roosevelt ✓ Ben Franklin ✓ Aristotle ● Create a dialogue between two figures from an historical, economical, political, social or cultural event demonstrating an understanding of the significance of the conflict or opposing viewpoints. Include the outcome of the event or present several plausible alternative solutions that could have improved the outcome of the event. Examples: ✓ President Kennedy and Khrushchev and the Cuban missile crisis ✓ Robert E. Lee and Ulysses Grant ✓ Kent State student Alan Canfora and President Nixon ● Create a political cartoon based on primary resources for an historic event or persona.
Audio Creation Software (GarageBand, Audacity, Myna, etc.)	● Create an enhanced video and/or audio podcast about the language, literature, music or arts of an historical, economical, political, social or cultural event. ● Create a video and/or audio podcast infomercial that expresses an opposing view of a historical, economical, political, social or cultural event. ● Create a video and/or audio podcast that addresses an essential question about a historical, economical, political, social or cultural event. ● Create a simulated radio broadcast from a period in history. Include jingles or archived, public domain audio recordings of events, commercials, or music.
Google, SketchUp Computer Aided Design (CAD) software	● Develop a digital model of an artifact showing its evolution over time in order to show the artifact's importance, impact, and relevance to social and economic development. ✓ The evolution of a knife ✓ Build a model of a flint tool ✓ Build a model of a bronze tool ✓ Build a model of a knife made of refined metals ● Explore two-dimensional and three-dimensional virtual models (e.g., from Google 3D Warehouse) of architecture and implements. ✓ Examine models of historical vehicles or implements ✓ Conduct virtual tours of buildings or monuments ● Develop a digital model of an architectural building or man-made landmark in order to show the artifact's importance, impact, and relevance to social and economic development. ✓ Build a model of the Panama Canal; the pyramids; the Twin Towers

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*Scope and Sequence: Grades 9-12

Video Creation Software (iMovie, MovieMaker, etc.)	● Create a movie or VoiceThread about an historical person, event, or decade. When using VoiceThread or posting web videos, extend the project by requiring students to comment on their peer's projects. ✓ Development of the European Union ✓ Genocides in History ✓ Alaskan History ✓ Global Conflicts and Terrorism ✓ The Berlin Wall ✓ The Cold War ● Interview an elder, senior, teacher, or another student and create a movie or VoiceThread about the person, about how they were impacted by an historic event, about life in earlier times, or another culture. ✓ Aleut elder and the relocation during WWII ✓ Inupiaq elder's educational experiences prior to the Molly Hootch Act ✓ Statehood of Alaska ✓ Development of Alaska Pipeline ✓ Veterans of Wars ✓ Earthquake and Flood Victims ✓ Peace Corp or VISTA experiences ● Create a documentary about an event, culture, or location. ✓ Japanese internment in WWII ✓ Apartheid ✓ Cuban Missile Crisis ✓ NAFTA ✓ Canada ✓ History of aviation ✓ Industrial Revolution ✓ Epidemics

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*Scope and Sequence: Grades 9-12

Digital Images	● Take original photos depicting news stories of current or historical events. ● Create a collage or slide show depicting important "moments in time" for historical and current events. ● Use photos to create positive and negative visual messages about the impact of scientific advances or technology on societies. ● Use photos to convey the effects of rapid changes in social, economic, and political institutions and systems. ● Create a poster or mural that examines the complex relationship between citizens and their government with a focus on human rights from a historical and contemporary viewpoint. ✓ Civil rights movement ✓ Middle East events of 2011 ✓ Effects of natural disasters and the potential changes to governmental structure and society as a whole ✓ Federalism vs. States Rights ✓ Bill of Rights and the Constitutional amendments
Google Earth, and GPS	● Create virtual tours in Google Earth using placemarks to demonstrate insight about historical time periods or regions. ✓ Create a tour of Alaskan villages along the coastline, rivers, or for a specific region. Information in the waypoint's description would include written information and pictures of the biomes, indigenous groups and their customs, weather, food sources, flora/fauna etc. ✓ Create a tour of the battles in the Revolutionary War ✓ Create a tour of historical sites along major routes of American Westward Expansion (Lewis and Clark, Oregon Trail, Trail of Tears, Chisholm Trail, Pony Express, Transcontinental Railroad, California Gold Rush, Klondike and Alaska Gold Rush) ● Use Google Earth layers to learn about, explore, and study: ✓ Ancient Rome ✓ The Elders Project ✓ Fair trade ✓ Shipwrecks ✓ Ocean expeditions ✓ US Government ✓ Street view of different cities ✓ Geographic features ● Learn about latitude and longitude using virtual globes like Google Earth ● Create layers in Google Earth to show the dispersal of: ✓ Minerals ✓ Diseases ✓ Chemicals ✓ Pollutants ✓ Dominant societies ● Use Global Positioning System (GPS) receivers to mark and locate waypoints and learn about latitude and longitude.

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*Scope and Sequence: Grades 9-12

	Develop an understanding of the historical impact of GPS technology, how it originated, became available to the public, and how its use is influencing our lives politically and personally. ✓ Conduct GPS geocaching activities or scavenger hunts. Involve students in creating caches and clues, and finding each other's waypoints. ✓ Import waypoints into Google Earth from a GPS, and then add descriptions, pictures, and video to these waypoints. ❖ Walking historical tour of Fairbanks ❖ Cemetery ❖ Creamers Field ❖ Energy Resources (e.g., refineries, power plants, pipelines, geothermal sites)
iPod and iPad Apps	● Use the audio, camera, and recording features to conduct interviews, collect oral histories and capture first hand accounts of cultural experiences and historical accounts. ● Use apps and web tools to access current events, explore historical sites, locate primary source documents and learn about geographic features.
SMART Board	● Create SMART Notebooks for historical figures, places, architecture, artifacts, national treasures, events, geographic locations etc. Examples: ✓ Rise and Fall of Roman Empire ✓ Silk Road ✓ Henry VIII ✓ Titanic ✓ Great Wall of China

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 9-12

Common Applications	Science
Word Processing (Word, Google Docs, etc)	● Write a scientific investigative report that features graphs or charts, images, a bulleted list, and citations. ● Write a research paper about a scientist's historical context and how it differs today. Consider using collaborative writing with Google Docs. (Examples: Galileo, Newton, Bohr, Einstein) ● Write a formal lab report that features hyperlinked table of contents, headings for each section (purpose or questions investigated, hypotheses, materials and experimental procedures, data and observations, and conclusions), lists of materials, photos or drawings to illustrate procedures and observations, tables and charts of data collected. Consider using collaborative writing by lab partners with Google Docs. ● Collaborate with other students using Google Docs or other online collaboration word processing applications to create documents that feature hyperlinked table of contents, images, tables, charts or graphs, citations, multiple layouts (one column, two column), hyperlinks to websites, WordArt, and footnotes. ✓ Record group projects together in a single document ✓ Collaborate on a lab report or scientific project which includes a hypothesis, experimental design, and sharing of data that supports or disproves their hypothesis. Include bullets, tables/graphs/ charts, images, hyperlinks, multiple layouts, footnotes, and citations as appropriate ✓ Contribute to a class wiki or blog during a project or assignment or to share research findings
Presentation Tools (PowerPoint, or other digital presentation tools)	● Develop a digital presentation to communicate results of an original scientific investigation. ● Include summaries of questions investigated, hypotheses, materials and experimental procedures, data and observations, and conclusions. Incorporate appropriate video clips, narration, and digital pictures. Add hyperlinks, charts and graphs. Respect creative works and cite sources. ● Create a collaborative class presentation to present content knowledge. Each student or group contributes several slides with appropriate graphics and text about some aspect of the topic. Combine the slides to create a class presentation on the topic, and share with the whole class.
Spreadsheets (Excel, Google spreadsheets, etc)	● Organize data from an experiment in a spreadsheet. Analyze data using appropriate formulas and charts to represent data. ● Use a collaborative shared spreadsheet to compile class experimental data. ● Use spreadsheet formulas to calculate averages or standard deviations on sets of experimental values. ● Explore using trend-lines in charts to find correlations of experimental data. ● Use statistical functions and formulas to analyze data. ● Use charting features to create scatter plots, line graphs, bar graphs, or other formats to generate meaningful visualizations of data or observations. Create appropriate titles, labels of axes. ● Create quizzes, tests, and surveys using shared spreadsheet forms.

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*Scope and Sequence: Grades 9-12

Digital Images	● Incorporate pictures of learning activities to generate interest and reinforce learning. ● Take a series of photos of stages in the life cycle of an organism. Create flash cards that challenge students to put the shots in order. ● Create assessment items that incorporate photos of equipment, measurement instruments, lab procedures, specimens, or experimental phenomena. ● Utilize images of local scenes, classroom activities, or field trips to add another dimension to journal writing activities. ● Capture and edit images of natural phenomena or environments. Consider publishing exemplary works, or entering them in contests. (e.g., the ASTE.ORG iDidaPhoto) ● Create virtual collections or field trips with digital images. Consider incorporating student images into a collaborative presentation such as a VoiceThread. ✓ Create collections of weather and atmospheric phenomena (e.g., cloud types, sun dogs, halos, rainbows) ✓ Create natural history collections of local specimens (e.g., wildlife, insects, wildflowers, trees and shrubs, pollens) ✓ Develop a field trip of geologic features, soils, or landforms ● Organize photos by events, projects, or experiments. ✓ Share images through a slide-show, print to a book, or through an online photo gallery. ✓ Create a vocabulary review for topics in science using digital images. ● Create an interactive poster about a specific event in science history, scientist, or science concepts. ● Use Photo Booth to take time-lapse photos of an experiment.
Comic Life	● Create a cartoon or graphic novel with titles, panels, images, call-outs, and text to convey understanding of historical figures or events. Apply color, styles, fonts, and page layouts to creatively convey emphasis and meaning. ✓ Illustrate basic scientific concepts. ✓ Create a simple explanation of a complex scientific concept. ✓ Compare and contrast alternative theories. ✓ Present opposing viewpoints on a controversial issue. ● Show cause and effect, or demonstrate processes.
Audio Creation Software (GarageBand, Audacity, Myna, etc)	● Create a video and/or audio podcast to present a project, issue, or concept that students have researched and feel strongly about. ● Use audio recording and editing software to create and publish podcasts on science topics or concepts. Consider publishing exemplary works online (e.g., Podbean site or iTunesU) or entering them in a contest (e.g., the ASTE.ORG iDidaPodcast). ● Record audio mini lessons or lectures and produce them as a podcast series. Publish on the class webpage, blog, or wiki. Involve students in creating the lessons to share. ● Create an audio class newsletter as a podcast series. Parents can access the news from a class webpage or subscribe to a podcast.

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*Scope and Sequence: Grades 9-12

Google Earth, GIS, and GPS	● Create virtual tours place-marks of landforms or geological phenomena by creating placemarks in Google Earth. ● Use real-time Google Earth data overlays such as earthquake data, volcanic activity, and plate boundaries to explore patterns related to plate tectonics. ● Visualize climatic patterns with animated overlays. ● Create placemarks linked to data or observations collected in field studies. ● Use Google Sky or Google Mars to explore astronomical features and imagery. ● View the location of a field trip in Google Earth before actually visiting. ● Use Google Earth for an environmental river project. ✓ Locate the origin of a river and then follow it to the mouth, entering the sea or lake. ✓ Use the altitude information on Google to calculate the difference in altitude between the origin and the mouth. ✓ Mark all geographical spots of interest (canyons, confluences, dams and weirs, cascades and waterfalls). ✓ Use the grid reference (GPS coordinates) and the altitude information on Google to refer to these points of interest on the map. ✓ Zoom in along the banks and make notes of the various field types along the length of the river - do various field types (grassland, ploughed fields, forests, etc.) have an influence on the river? (e.g., siltation, river course changing, eutrophication, etc.) ✓ Determine which towns and cities lie next or near to the river and have an influence regarding water extraction for households and industries pollution. ● Scan a contour map of an area, preferably mountainous. ✓ Navigate to the area on Google Earth. ✓ Use the tools/ image overlay option to insert the contour map over the area. ✓ Use the transparency slider, then overlay the map into the right area. ✓ Show students what different landforms look like on a contour map. ● View floodplains in your area using data from FEMA. ● Create Google Earth tours (.KMZ files) that can be shared in class showing earthquake fault lines in your area, or more famous ones like the San Andreas Fault.
Video Creation Software (iMovie, MovieMaker, etc.)	● Create and present a video project about a local or global issue or concept students have researched. Students can expand on their ideas using writing, drawing, pictures, video, and audio tools. ● Capture video of moving objects and analyze motion such as trajectories, velocity, and acceleration. ● Conduct and compile video interviews of scientists, engineers, or other resource people about scientific issues or phenomena. ● Capture and edit video of natural phenomena or environments. Consider publishing exemplary works or entering them in contests (e.g., the ASTE.ORG iDidaPhoto). ● Make a digital visual representation of a specific science concept. It also is a means to discover students' misconceptions related to the concept.

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*Scope and Sequence: Grades 9-12

	✓ Create a video to analyze motion of a roller coaster. ✓ Document a science experiment, including hypotheses tested, procedures followed, observations, and conclusions. ● Record artifacts related to a project-based learning activity such as interviews with experts and data collection techniques. Use video cameras, flip cameras, document cameras, iPod Touches, or cell phone cameras to capture the video. ✓ Students record their modeling of the composition of the earth's atmosphere project. ✓ Record observations of events or phenomena related to specific concepts taught in class. ✓ Slow the video down using QuickTime Player to provide the ability to analyze and demonstrate facts related to the concept being presented. ● Set up a remote camera to document and record weather phenomena, or wildlife behavior. ✓ Capture time-lapse images of cloud formation or storm activity ✓ Record nesting or den activity of birds or mammals
Document Camera with Avervision	● Use the Avervison software and document camera to capture and annotate images or to record video of a demonstration or experimental procedure. ● Incorporate the images or video captured from the document camera in a presentation, lab report, lesson, or assessment. ● Use the microscope adapter with a document camera and Avervision software to record observations of microscopic specimens or phenomena.
Sensors and Probeware	● Conduct hands-on science activities and experiments in the classroom and field using digital sensors, probes and data loggers. ✓ Use motion sensors to conduct experiments involving velocity and acceleration. Have students attempt to match position vs. time and speed vs. time graphs. ✓ Collect and graph environmental data to answer questions about water quality or to monitor variables such as light intensity, pH, or temperature while conducting controlled experiments. ✓ Measure the CO2 or O2 produced or consumed by an organism, or the effect of light wavelength on photosynthesis. ✓ Measure and graph temperature changes during phase changes
VoiceThread	● Use VoiceThreads created by both teacher and other students which are embedded in a class wiki or blog for use to review concepts for a test, or to deliver content to students who missed class presentations. ● Create a debate about a controversial scientific topic or bioethical issue. Students contribute key argument points using one slide for pro and another for a con position. ● Share comments, ideas, or suggestions related to a posted video related to a scientific concept or theory. ● Create original diagrams, images, or charts to portray structures or processes. Use the "doodler" to draw arrows to point out features or changes. ✓ Identify anatomical features of different types of animals

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*Scope and Sequence: Grades 9-12

	✓ Diagram human body systems or physiological processes ✓ Demonstrate chemical or physical processes and have students comment ✓ Create a "Bad Science" show. Present common misconceptions about science concepts, and debunk them with demonstrations and correct explanations ● Create a VoiceThread presentation to communicate findings in a science project. Every student must contribute to part of the presentation using their own voice for facts and comments. ✓ Provide examples of reflection and refraction along with explanations ✓ Provide examples of each type of biome found around the world ✓ Debate the issue of global warming using facts and data presented
Skype (or other video conference tools)	● Conduct an interview with a scientist, engineer, technician, or other resource expert at a remote location. Project the remote site on a classroom screen, and pose questions with a web cam and microphone. ● Connect with a classroom at a school in a remote location to collaborate on simultaneous observations of natural phenomena or in collecting experimental data.
iPod Touch	● Use the camera or video-camera to collect, document and record observations or experimental results. ● Use a video camera or voice recorder to record observations during an experiment, to demonstrate lab process skills, or to conduct audio interviews with resource experts. ● Use apps that access the motion sensor/accelerometer to record motion and conduct motion experiments. Graph velocity, acceleration, and time using Excel. ● Listen to podcasts on science content topics from iTunes U.

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Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 9-12

Common Applications	Math
Word Processing (Word, Google Docs, etc)	● Create a brochure on a given topic explaining and using pictures, graphs and equation editor. ● Create a collaborative dictionary that students will share amongst students. ● Create a collaborative notebook where students can show different ways to solve problems with written explanations. Focus on using appropriate vocabulary, symbols, or technology to explain, justify, and defend strategies and solutions.
Presentation Tools (PowerPoint, etc.)	● Create a presentation on a given math topic showing how the concept is used in everyday life. Focus on using appropriate vocabulary, symbols, or technology to explain, justify, and defend strategies and solutions. Include the following: ✓ Jobs that use the concepts ✓ Why it is useful ✓ Pictures or movies about the concept in use ✓ Formula of the concept ✓ Problem being worked out in detail ✓ Question and Answer session
Spreadsheets (Excel, Google etc.)	● Use spreadsheets to teach basic programming, mathematics, and problem solving. Write formulas in a spreadsheet for estimating or converting measurements between the English and metric systems in real-world applications, given a conversion factor (e.g., miles/kilometers) ● Use a spreadsheet to generate arithmetic and geometric sequences ● Analyze measures of central tendency (e.g., mean, median, and mode) for real-world data sets. Use spreadsheet functions to perform calculations. Students should analyze and draw meaning from the relationships to present an explanation supported by the data. ✓ Compare prices for consumer goods ✓ Analyze population demographics ✓ Examine survey results ● Set up a spreadsheet to perform complex and repetitive calculations. Use spreadsheet columns to enter values for variables. Represent algebraic or geometric relationships using spreadsheet formulas and functions. Perform manual or calculator computations to verify that the spreadsheet is correctly configured. ● Create animated graphs to display changes in data over time. ● Create a table with independent and dependent variables. Generate scatter plots with trend lines that display linear and non-linear relationships ● Graphically analyze energy consumption based on electronic devices, lights, and appliances and list ways to save money. ● Explore and visualize cyclical changes over time with graphs ✓ Create graphs of sunrise, sunset, and day-length data at different latitudes ● Analyze data by creating pivot tables

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*Scope and Sequence: Grades 9-12

Digital Camera	● Take photos of "real world" geometric shapes and explain how multiple geometric concepts are applied in that shape. Example: ✓ Stop Sign: Regular Polygon, Interior and Exterior Sum of Angles, Perimeter, Area ● Capture pictures of objects and record their dimensions. Calculate surface areas and volumes. ● Capture images of natural or architectural shapes (e.g., conic sections, spirals, curves) that can be modeled with formulas. Overlay diagrams of the shapes and write the formulas that represent the shapes.
Comic Life	● Create Comic Life panel(s) to break down complex ideas, create entertaining content, illustrate concepts, compare/contrast concepts, present an argument, represent or express interpretations, show cause and effect, or demonstrate processes. Examples: ✓ Geometric theorem ✓ Algebraic equation ✓ Explain pivot tables ✓ Order of Operation (PEMDAS) ✓ Relationship between slope, the y intercept, and graphing equations
Audio Creation Software (GarageBand, Audacity, Myna, etc)	● Create a rap or song about a math concept ✓ Geometric theorem ✓ Algebraic equation ✓ Order of Operation (PEMDAS) ✓ Square roots ● Record an audio assessment explaining steps to solve a problem or perform an operation
Google Earth	● Use Google Earth in classroom to cover math concepts: Examples: ✓ RealWorldMath.org - How to use Google Earth to cover math concepts ✓ Spherical Geometry ✓ Ski Slopes - Find the slope of a ski mountain by having student find the distance skied and elevation change ✓ Points of Concurrency in a Triangle in a real world context (yes...the Earth is not flat) ✓ Find the distance between two cities using trigonometry along with latitude and longitude
Video Creation Software (iMovie, MovieMaker, etc)	● Create a movie explaining a concept from their math class using iMovie, pictures, video, and/or PowerPoint slides ✓ Record a rocket launch and explain the mathematics behind the path of the rocket.
Graphing Calculators	● Graph various polynomial functions and look for patterns that develop based on: ✓ Odd and Even functions ✓ Recognizing shape of curves ✓ Finding the Max(s) and Min(s) ✓ Sorting in multiple ways based on different patterns that you see ● Use matrices to solve system of linear equations. ● Solve a system of equations graphically.

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	● Find the line of best fit for a given set of data and use the line to make predictions. ● Program the calculator to find volume by entering length, width, and height.
Math Modeling Software (Sketchpad, Google SketchUp, etc)	**Geometers Sketch Pad** ● Construct algebraic and geometric concepts to explore. Example: ✓ Construct two parallel lines and a transversal in order to explore the relationship of angles ✓ Graph linear equations; have students adjust the slope or the intercept to see how each one changes the graph ✓ Explore the relationship between rectangles, triangles, parallelograms, and trapezoids. ● Import pictures to explore algebraic and geometric concepts. Example: ✓ Write equations for linear, quadratic, and various other functions of lines that can be found in an image like a bridge cable or building structures. ✓ Area, perimeter, surface area, or volume. ● Visit SketchPad Sketch Exchange to find pre-made lessons and templates created by other teachers. **Google SketchUp** ● Create geometric shapes and measure them to find area and perimeter. Examples: ✓ Triangle ✓ Rectangle ✓ Regular Polygons ✓ Circles ✓ Cubes ● Construct tessellating patterns ● Import objects that exist in real life from the sketch up repository and find the area, perimeter, surface area, and volume of the item. ✓ Pyramids in Egypt ✓ Great Wall in China ✓ Swimming Pool (only the deep end with constant depth) ● Create house blueprints and calculate building costs. Include cost of lumber, calculate needed number of gallons of paint, types of flooring and the cost to install, etc. ● Create a net of a 3-dimensional shape.

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

*Scope and Sequence: Grades 9-12

Blogs	Subscribe to award winning math blogs to generate new ideas on teaching math concepts ● Dy/Dan - Gives great examples of ways to improve teaching of math concepts. Examples of student projects: ✓ Linear Regression - Toasters and Toasters Cont' ✓ Problem Solving - ELI ✓ Problem Solving and Traffic Tickets - Yellow Lights ● Teaching College Math Examples of student projects: ✓ Calculus - Game Antiderivative Block ✓ Sixty Symbols - College professors explain different symbols with history and uses of in the real world. ● Mathematics and Multimedia Examples of student projects: ✓ Scientific Notation - Distance to Planets ✓ Probability - To Win the Lottery
Podcast	● Use podcasts to enhance and develop the curriculum from various sources such as iTunes U and TED ✓ KHAN Academy - Explanations on a wide range of curriculum and standardized preparation material ✓ Math in Nature and Art ✓ Teaching Mathematics - Teachers explaining different strategies on how to teach a given topic ✓ Mathematics - The main page of Mathematics at iTunes U. It can be further refined for Algebra, Statistics, Geometry, Calculus, and Advanced Mathematics ✓ Pre - Algebra - Set of videos explaining different concepts of Pre - Algebra/Algebra ✓ TED iTunes - Download High Def versions you like ● TED has some wonderful podcasts on how math works in our everyday lives: ✓ TED - Numbers at Play - Ted Talks on mathematical concepts ✓ TED - Math Talks - Ted Talks on mathematical concepts
Online Game Sites	● Practice and reinforce skills using math related sites Examples: ✓ Shodor - java based web activities ✓ Math Inter-activities - Flash based activities and videos ✓ Math Continuum - Flash based activities for Pre - Algebra ✓ Calculation Nation - Flash based activities for Pre - Algebra and above

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

*Scope and Sequence: Grades 9-12

Support Systems for Students	**Wolfram** ● Wolfram Alpha ● Wolfram Demonstrations - Inter-activities that allow you to explore a concept without having to redraw it over and over. ✓ Graphing Order Pairs ✓ Distance Formula ✓ Quadratic Formula ● Wolfram Algebra Course Assistant **Hippocampus** ● Online tutorials for students in Algebra 1 and Calculus **Khan Academy** ● Online tutorials for students in Algebra 1, Algebra 2, and Calculus **Wolfram Algebra Course Assistant** ● Shows steps to calculate problems ● Evaluates a formula ● Creates a table of values

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 9-12

Common Applications	PE/Health
Word Processing (Word or other Document creation tools)	● Create a book report, brochure, flipbook, script, or flyer. Use appropriate styles, headings, graphic elements, layout, and templates to enhance the visual appeal of the publication. Examples: ✓ Volleyball ✓ Floor Hockey ✓ Walking, Jogging, Running ✓ Seasonal Affective Disorder (SAD)
Presentation Tools (PowerPoint or other digital presentation tools)	● Create digital projects using media tools like transitions, animations, fonts, and graphics to enhance presentations. Examples: ✓ Drugs ✓ Mental Disorders ✓ Healthy Relationships ✓ Eating Disorders
Spreadsheets (Excel, Google spreadsheets, or other spreadsheets)	● Track and record weight lifting progress over the semester. ● Graph and analyze the caloric and fat content of items eaten from fast food restaurants. Find healthier choice alternatives and explain why they are better choices. Calculate how many minutes it would take to burn the calories from those meals engaging in different physical activities.
Comic Life	● Create flyer about the benefits of sports. ● Create a flyer about a disease.
Audio Creation Software (GarageBand, Audacity, Myna, etc)	● Create a PSA on a health topic.
Google Earth and GPS	● Use GPS units to record their path of travel during a class period. Download the data and import it into Google Earth. View how the path looks over satellite imagery and write about the interesting aspects of each checkpoint. ● Use GPS units to find geocaches. Geocaches can either be created or you could have students visit local geocaches that other people have made (which can be found by doing a search on your favorite browser)
Video Creation Software (iMovie, MovieMaker, etc)	● Create a PSA on a health topic. ● Create an infomercial for a disease.

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

Technology Guidelines
Preparing Students with the Technology Tools for Learning, Communicating, and Productivity

*Scope and Sequence: Grades 9-12

Common Applications	Fine Arts
Word Processing (Word or other Document creation tools)	● Create a book report, brochure, essay, flipbook, or flyer. Use appropriate styles, headings, graphic elements, layout, and templates to enhance the visual appeal of the publication. Examples: ✓ Art History ✓ Self-reflective critique notes ✓ Journaling
Presentation Tools (PowerPoint or other digital presentation tools)	● Create digital projects using media tools like transitions, animations, fonts, and graphics to enhance presentations. Example: ✓ Relating artists, art movements, personal work, and creative processes
Spreadsheets (Excel, Google spreadsheets, or other spreadsheets)	● Create a spreadsheet to track art materials and their costs.
Digital Camera	● Create digital images as stand-alone pieces of art. ● Document 2D and 3D art work for digital portfolios. Examples: ✓ Zulu link ✓ Art Miles Mural ✓ Artsonia ✓ VoiceThread
Comic Life	● Create original comic artwork using existing digital imagery.
Audio Creation Software (GarageBand, Audacity, Myna, etc)	● Create an enhanced podcast of your portfolio. Include a commentary about your artwork.
Google Earth	● Use Google Earth layers to look at ancient Greece and Rome to discuss architecture. ● Use Google Earth art blogs to generate inspiration for developing works of art. ● Use Google Earth layers to investigate aerial perspective. ● Create placemarks to develop an understanding of regionalism pertaining to art and art history.
Video Creation Software (iMovie, MovieMaker, VoiceThread, etc)	● Document a creative process and/or a 'how to' film. ● Narrate projects, portfolios and/or process.
iPhoto	● Edit and enhance images.
Photo Booth	● Use to take reference pictures for self portraits. ● Explore Pop Art through filter experimentation.

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

*Scope and Sequence: Grades 9-12

Photoshop	● Edit, trim and enhance photos. ● Create original artwork.
Illustrator	● Create original artwork. ● Explore commercial art applications through logo design and print-based media.
InDesign **Fireworks & Flash**	● Create page layout for "Zines". ● Create page layout for yearbook. ● Create web based media, including simple animation.

*These activities are derived from the FNSBSD core curricula, which are aligned to Alaska Content & Performance Standards

ALASKA CONTENT STANDARDS
Technology

A — A student should be able to operate technology-based tools.

A student who meets the content standard should:
1) use a computer to enter and retrieve information;
2) use technological tools for learning, communications, and productivity;
3) use local and world-wide networks;
4) manage and maintain technology tools; and
5) diagnose and solve common technology problems.

B — A student should be able to use technology to locate, select, and manage information.

A student who meets the content standard should:
1) identify and locate information sources using technology;
2) choose sources of information from a variety of media; and
3) select relevant information by applying accepted research methods.

C — A student should be able to use technology to explore ideas, solve problems, and derive meaning.

A student who meets the content standard should:
1) use technology to observe, analyze, interpret, and draw conclusions;
2) solve problems both individually and with others; and
3) create new knowledge by evaluating, combining, or extending information using multiple technologies.

D — A student should be able to use technology to express ideas and exchange information.

A student who meets the content standard should:
1) convey ideas to a variety of audiences using publishing, multi-media, and communications tools;
2) use communications technology to exchange ideas and information; and
3) use technology to explore new and innovative methods for interaction with others.

E — A student should be able to use technology responsibly and understand its impact on individuals and society.

A student who meets the content standard should:
1) evaluate the potentials and limitations of existing technologies;
2) discriminate between responsible and irresponsible uses of technology;
3) respect others' rights of privacy in electronic environments;
4) demonstrate ethical and legal behavior regarding intellectual property, which is the manifestation of an original idea, such as computer software, music, or literature;
5) examine the role of technology in the workplace and explore careers that require the use of technology;
6) evaluate ways that technology impacts culture and the environment;
7) integrate the use of technology into daily living; and
8) recognize the implications of emerging technologies.

Appendix C

K – 12 Technology Curriculum Overview

The FNSBSD K – 12 Technology Curriculum is comprised of two different sections: The Educational Objectives and the Scope and Sequence.

The Educational Objectives are aligned to both the ISTE Nets-S and the Alaska Content Standards for Technology. The Educational Objectives are further broken down into "I Can" statements. These are clear statements, which identify each step that is necessary in order to successfully meet that particular objectives goal(s) and are written in student friendly language.

The Scope and Sequence contains a series of activities at each grade level for the most frequently used applications in the Fairbanks Northstar Borough School District. The activities in the Scope and Sequence are aligned to mastery core objectives in the core curriculum guides. The curriculum guides are aligned to the Alaska Grade Level Expectations.

Examples include:

4th Grade:

- Science Mastery Core Objective: Compare and contrast the planets. (AK GLEs: [4]SA1.1, [4]SA 1.2, [4]SD3.1, [4]SG4.1)
- Technology Scope and Sequence Activity:
  - Application: GarageBand
  - Activity: Use GarageBand to produce an enhanced podcast that incorporates voice tracks and sound tracks to demonstrate an understanding of our solar system and celestial bodies.

5th Grade:

- Social Studies Mastery Core Objective: Identify and show an understanding of geographic regions of the United States as related to U.S. historical events (G.Y. B.1 – 8; G.Y.F. 1 – 2, 6)
- Technology Scope and Sequence Activity:
  - Application: Google Earth
  - Activity: Use Google Earth to trace the pathway of explorers
- Science Mastery Core Objective: Identify the types of volcanoes and their main features. (AK GLEs [5] SD2.1, [5]SE1.1, [5] SF1.1-1.3
- Technology Scope and Sequence Activity:
  - Application: Presentation Tools
  - Activity: Build a presentation that identifies the types of volcanoes and their main features

6th Grade:

- Social Studies Mastery Core Objective: Examine and explain the contributions of ancient societies (H.B. 2-3)
- Technology Scope and Sequence Activity:
  - Application: Comic Life

- Activity: Use pictures with captions to develop a conversation between several historical characters displaying an understanding or an event from an event from an ancient civilization

Appendix D

Curriculum Management Model

YEAR	MUSIC	WORLD LANG.	LANG. ARTS	TECH.	SOCIAL STUDIES	CTE	MATH	ART	HEALTH	P.E.	SCIENCE
2008-09	R/E	R/E	M/A		M/A	M/A	M/A	M/A	(P)	(P)	D
2009-10	D	D	R/E	R/E	M/A	M/A	M/A	M/A	I-M/A	I-M/A	(P)
2010-11	(P)	(P)	D	D	R/E	R/E	M/A	M/A	M/A	M/A	I-M/A
Proposed 2011-12	I-M/A	I-M/A	(P)	(P)	**R/E***	**R/E***	M/A	M/A	M/A	M/A	M/A
2012-2013	M/A	M/A	I-M/A	I-M/A	D	D	R/E	R/E	M/A	M/A	M/A
2013-2014	M/A	M/A	M/A	M/A	(P)	(P)	D	D	R/E	R/E	M/A
2014-2015	M/A	M/A	M/A	M/A	I-M/A	I-M/A	(P)	(P)	D	D	R/E
2015-2016	R/E	R/E	M/A	M/A	M/A	M/A	I-M/A	I-M/A	(P)	(P)	D
2016-2017	D	D	R/E	R/E	M/A	M/A	M/A	M/A	I-M/A	I-M/A	(P)
2017-18	(P)	(P)	D	D	R/E	R/E	M/A	M/A	M/A	M/A	I-M/A
2018-19	I-M/A	I-M/A	(P)	(P)	D	D	R/E	R/E	M/A	M/A	M/A
2019-20	M/A	M/A	I-M/A	I-M/A	(P)	(P)	D	D	R/E	R/E	M/A
2020-21	M/A	M/A	M/A	M/A	I-M/A	I-M/A	(P)	(P)	D	D	R/E
2021-22	R/E	R/E	M/A	M/A	M/A	M/A	I-M/A	I-M/A	(P)	(P)	D
2022-23	D	D	R/E	R/E	M/A	M/A	M/A	M/A	I-M/A	I-M/A	(P)
2023-24	(P)	(P)	D	D	R/E	R/E	M/A	M/A	M/A	M/A	I-M/A
2024-25	I-M/A	I-M/A	(P)	(P)	D	D	R/E	R/E	M/A	M/A	M/A
2025-26	M/A	M/A	I-M/A	I-M/A	(P)	(P)	D	D	R/E	R/E	M/A
2026-27	M/A	M/A	M/A	M/A	I-M/A	I-M/A	(P)	(P)	D	D	R/E

R/E = Research and Evaluation D = Development (P) = Pilot (when necessary)
I-M/A = Implement – Monitor/Assess

*Additional year of Research and Evaluation

Appendix E

MY Access! Writing Improvement Program
2009-10 Pilot Project
Evaluation Summary

Introduction:

The *MY Access!* program was piloted in the 2009/10 school year with a total of 16 teachers at the following seven schools: Denali Elementary, Ladd Elementary, Ryan Middle School, Two Rivers Elementary, University Park Elementary, Weller Elementary and West Valley High School. Across all the 16 participating teachers' classrooms, there were 685 students in grades four through nine who logged in to the program at least once, of whom 493 completed the initial *MY Access!* pretest in the fall and 498 completed the posttest in the spring. Only 382 of these students had valid scores for both the pretest and the posttest and of those, only 354 had Writing results from both the 2009 and 2010 Alaska Standards Based Assessments (SBAs). Since our evaluation is chiefly concerned with the program's possible impact on SBA Writing proficiency rates, our outcomes section reflects the results of the 354 students with complete assessment data, rather than all 493 project participants.

Implementation:

Usage of the program varied from classroom to classroom. Some teachers found it more difficult than others to get enough computer access time for their students. Following is a table summarizing *MY Access!* usage at each school.

TABLE 3
Program Usage Summary

School	Number of Students Who Used *MyAccess!*	Total Number of Submissions	Avg. Submissions per Student
Denali	48	838	17
Ladd	46	385	8
Ryan	249	2279	9
Two Rivers	42	715	17
University Park	80	942	12
Weller	151	3433	23
West Valley	69	761	11

Teacher Perceptions:

When asked for feedback in a Spring 2010 survey of *MY Access!* pilot teachers, the responding teachers came back with primarily positive comments. The most common positive features of *MY*

Access! mentioned by teachers were immediate feedback, automatic scoring and encouragement of student revision. When asked what challenges the teachers experienced with the *MY Access!* program, the most common complaint was a lack of time to use the resource. Across the district, 100% of teachers using *MY Access!* believed the Intellemetric scores assigned by the computer were motivating for students. Further, 100% of teachers would recommend this program to other teachers.

Student Perceptions:

Students also reported positively when asked about the *MY Access!* program in a Spring 2010 survey. When students were asked what they liked best about *MY Access!,* the most common answer was using a computer to write as opposed to using pen and paper. Students also indicated that the ease of revising in *MY Access!* increased document review and rewriting significantly, with 59% reporting that they edited and revised more often with the program than they did with paper and pencil. Seventy-one percent of the students who completed the survey said that they would recommend *MY Access!* to other students.

Outcomes:

Since the *MY Access*! project serves all students in the participating teachers' classrooms rather than targeting only students who were not proficient in the prior year, the most appropriate outcome measure is the number of students who become or remain proficient in Writing in the year of implementation. Among students enrolled at the seven pilot schools, a higher percent of the students in classrooms that used *MY Access!* became or remained proficient than students in classrooms that did not use the program. These results are broken out by grade level in Table 1.

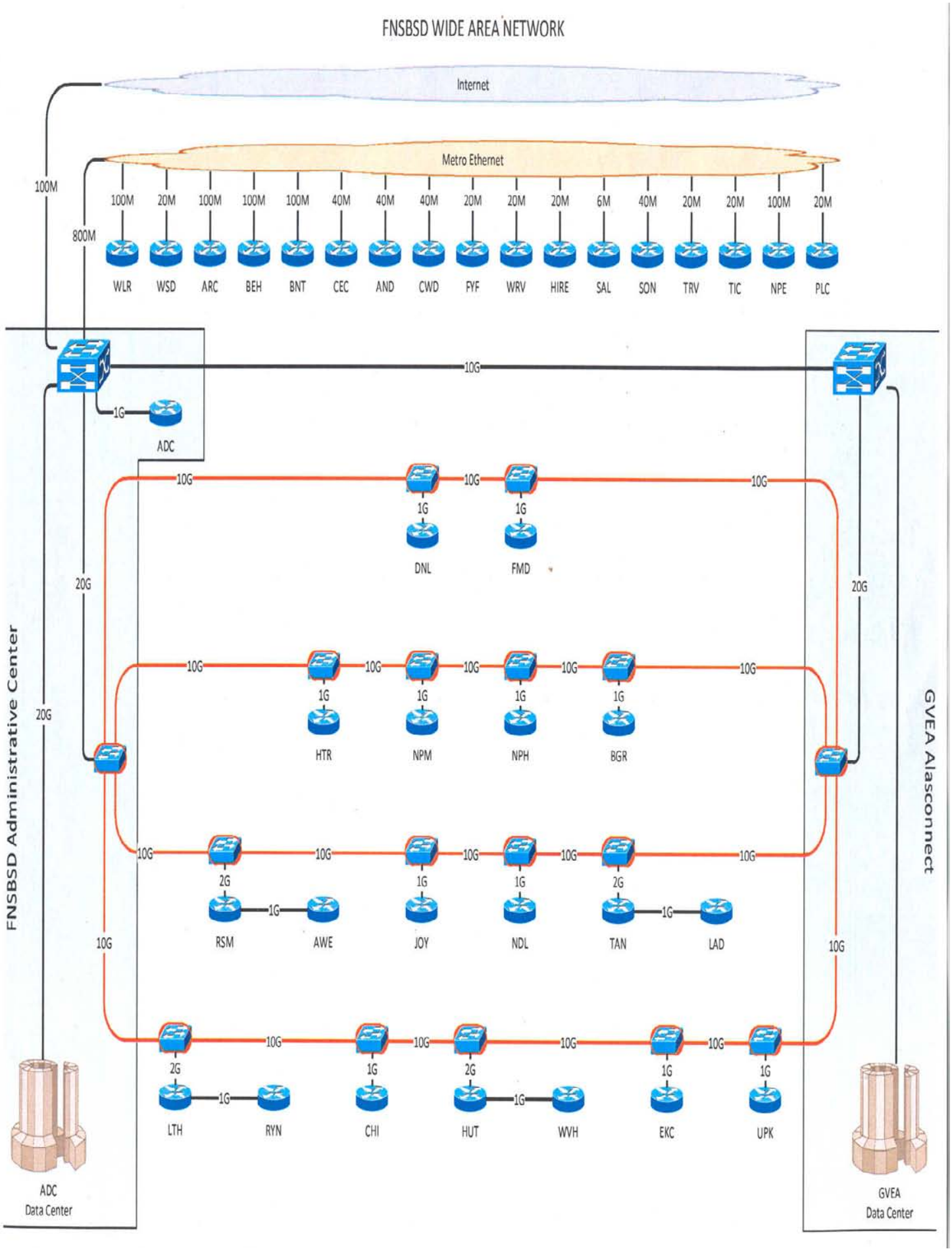
Table 1
Students Who Became or Remained Proficient on the Writing portion of the SBAs (Pilot Schools Only)

Grade Level	*MyAccess!* Users	Non-Users
Grade 4	82%	81%
Grade 5	84%	71%
Grade 6	87%	78%
Grade 7	82%	67%
Grade 8	81%	69%
Grade 9	94%	82%

Conclusion:

Sixteen teachers participated in the *MY Access!* pilot program in the 2009/2010 school year; a total of 354 students were included in the evaluation. The program was favorably perceived by both teacher and student users. The program was reported to encourage editing and revision, one of the most critical skills for students to master. A high number of both teachers and students stated that they would recommend *MY Access!* to others. Finally, more than 80% of students using *MY Access!* at each grade level either maintained or increased their Writing proficiency levels from the prior year.

Appendix F


FNSBSD WIDE AREA NETWORK
Internet
Metro Ethernet
100M
800M
100M 20M 100M 100M 100M 40M 40M 40M 20M 20M 20M 6M 40M 20M 20M 100M 20M
WLR WSD ARC BEH BNT CEC AND CWD FYF WRV HIRE SAL SON TRV TIC NPE PLC
10G
1G
ADC
20G
DNL FMD
HTR NPM NPH BGR
RSM AWE JOY NDL TAN LAD
LTH RYN CHI HUT WVH EKC UPK
FNSBSD Administrative Center
GVEA Alasconnect
ADC
Data Center
GVEA
Data Center

Appendix G

Budget/Inventory Analysis for E-Rate Components

The document was prepared in accordance with Section 54.508(b) of the FCC's Rules and Regulations, Chapter 1 of Title 47 of the Code of Federal Regulations.

Block 1: Identification			
E-Rate Year:	**July 1, 2010 – June 30, 2011**		
District or School Name:	**Fairbanks North Star Borough School District**		
Prepared By:	**Robin Mullins, Director of Business Svs**	Date:	**02/24/11**

Block 2: Analysis of E-Rate Services Requested	
E-Rate Service(s):	Telecommunication Services and Internet Access Categories

Block 3: Educational Technology Plan Goals Addressed by E-Rate Services	
Goal(s) or Page Number(s):	Telephone service necessary for conducting district business and for school to parents/students and community communications. Internet access necessary to support virtually all technology plan goals and initiatives. Our E-Rate request supports all tech plan goals.

Block 4: Evaluation of Goals	
Evaluation Activities:	Are telephones working? Is the network up and running in a fashion consistent to meet the needs of all students and staff using the internet for school related (i.e. power school & web content) projects?

Block 5: Budget Elements			
Current Level of Service:	Level After E-Rate Request has been Filled:	Budget for district's share:	Planned budget source:
Telephone service and WAN / LAN & Internet Access to all locations.	Same – continued Same – continued - and improved w/faster access	$420,732 $699,648	Operating Fund Operating Fund

Budget/Inventory Analysis for E-Rate Components

Block 6: Analysis of Non E-Rate Eligible Requirements				
Block 6a: Hardware				
Hardware Required:	Current Level:	New Purchases:	Budgeted Amount:	Funding Source:
None, except unanticipated repairs.	Sufficient for current levels of service.	None anticipated at this time.	~ $20,000	Operating Fund
Block 6b: Software				
Software Required:	Current Level:	New Purchases:	Budgeted Amount:	Funding Source:
None – all necessary software for reliable phone svs & internet access is in place.	Sufficient for current levels of service.	None anticipated at this time.	N/A	N/A
Block 6c: Professional Development (PD)				
PD Required:	Current Level:	New Purchases:	Budgeted Amount:	Funding Source:
No additional PD is required to operate the existing network or telephone switches.	Sufficient for current levels of service.	None anticipated at this time.	N/A	N/A
Block 6d: Retrofitting/Electrical Upgrades				
Retrofitting Required:	Electrical Upgrades Required:		Budgeted Amount:	Funding Source:
None.	None anticipated at this time.		N/A	N/A
Block 6e: Maintenance				
Maintenance Required:	Current Level:	New Purchases:	Budgeted Amount:	Funding Source:
Maintain existing phone switches and internet connections	Sufficient for current levels of service.	None	~ $50,000	Operating Fund
Block 6f: Total Non-Eligible Requirements			Total Budgeted Amount:	
Please note: The FNSBSD has over $6M budgeted in support of technology, in categories that don't happen to fit in blocks 6a – 6e of this BIA form.			~ $70,000	

Budget/Inventory Analysis for E-Rate Components

Complete this document before submitting your E-Rate Form 470. Please submit this completed document to:

E-mail: tech.plan@alaska.gov
FAX: 907-465-2989
Mail: Educational Technology Clerk
801 West Tenth Street, Suite 200, PO Box 110500, Juneau, Alaska 99811-0500

Appendix H

Research-Based Practices in Technology

FNSBSD has identified researched-based practices, strategies, tools, and materials to help implement the use of technology to support student learning, engagement, and motivation. As such, we have turned to a variety of sources to help guide our continuing implementation of technology.

The curricular technology support provided by publishers is carefully reviewed and considered during the materials adoption process. All adopted materials are scientifically research-based, including the use of technology within the materials. Research has shown the use of formative assessments correlate to increased student achievement. Formative assessments are often an integral component of the curricular technology support.

Besides materials, FNSBSD also looks at providing research-based teaching strategies, tools and quality professional development to support the effective use of technology.

The FNSBSD has provided professional development on the nine research-based teaching strategies identified in *Classroom Instruction that Works,* by Marzano, Pickering, and Pollock, and continues to provide professional development based on these strategies.
These strategies are:

- Identifying Similarities and Differences
- Nonlinguistic Representations
- Summarizing and Note Taking
- Setting Objectives and Providing Feedback
- Reinforcing Effort and Providing Recognition
- Generating and Testing Hypotheses
- Homework and Practice
- Cues, Questions
- Advanced Organizers Cooperative Learning

When the companion book *Using Technology with Classroom Instruction that Works,* by Pitler, Hubbell, Kuhn, and Malenoski, was published, this book was distributed to FNSBSD's instructional technology teachers as a means to support district goals via technology. "Applied effectively, technology implementation not only increases student learning, understanding, and achievement but also augments motivation to learn, encourages collaborative learning, and supports the development of critical thinking and problem solving skills" (page 3, Pitler, et al).

FNSBSD is also committed to supporting students with 21st Century skills. "Today's education system faces irrelevance unless we bridge the gap between how students live and how they learn. Schools are struggling to keep pace with the astonishing rate of change in students' lives outside of school. Students will spend their adult

lives in a multitasking, multifaceted, technology-driven, diverse, vibrant world and they must arrived equipped to do so" (pg 4, *Learning for the 21st Century School*). This article identifies six key elements of 21st Century Learning:

- Emphasize core subjects
- Emphasize learning skills
- Use 21st century tools to develop learning skills
- Teach and learn in a 21st century context
- Teach and learn 21st century content
- Use 21st century assessments that measure 21st century skills

In addition to teaching strategies and key elements for 21st Century learning, technology tools must be leveraged to make transformations in the learning environment. *The 21st Century Classroom* identifies technology as a tool, "not a surrogate teacher." "Aside from technology's power to engage students, it can help educators tailor instruction for different students, targeting individual students' needs and accommodating their learning style as much as possible" (page 4, Group).

FNSBSD will continue to stay abreast of current research that supports the use of teaching strategies, tools, and materials to meet the needs of our diverse population of students.

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Appendix I

Instructional Technology Teachers 2010-2011

Name	Schools	Days	Phone Skype Name	Email
Don Benn	• Tanana • West Valley	• Tues/Thur • Mon/Wed/Fri (a.m.)	**Skype:** donaldbenn	donald.benn@k12northstar.org
Dave Brannan	• BEJSH • Anderson • Crawford • Salcha	• Mon/Wed/Fri (a.m.) • Tues (a.m.) • Tues (p.m.) & Thurs • Thur (p.m.)	**Cell:** 907-460-9349 **Skype:** david_brannan	david.brannan@k12northstar.org
Misha Brenner-Gelvin	• University Park • Ladd • Pearl Creek	• Wed (some Tues or Fri a.m.) • Thur (some Tues or Fri a.m.) • Mon (some Tues or Fri a.m.)	**Skype:** mbrennergelvin	misha.brenner-gelvin@k12northstar.org
Bill Ernst	• Badger • Barnette • Anne Wien	• Tues (p.m.) & Wed (all-day) • Mon (all-day) & Tues (a.m.) • Thur (all-day) & Fri (a.m.)	**Cell:** 590-5932 **Skype:** billernst55	william.ernst@k12northstar.org billyernst@hotmail.com
Lindy Kinn	• Arctic Light • Tic Brown • Woodriver	• Wed (some Thurs) • Mon (some Thurs) • Tues (some Thurs)	**Cell:** 907-590-4448 **Skype:** lindykinn	belinda.kinn@k12northstar.org
Bill McKee	• Nordale • Two Rivers • Weller	• Tues/Wed (p.m.) • Thur/ Fri (a.m.) • Mon/Wed (a.m.)	**Cell:** 907-750-2313 **Skype:** billmckee49	bill.mckee@k12northstar.org
John Schauer	• Ryan • North Pole HS	• Tues (all day) & Thurs (p.m.) • Mon/Wed (all day) Thur/Fri (a.m.)	**NPH Msg:** 488-3761 x9141 **Cell:** 460-6290	john.schauer@k12northstar.org
Terri Thompson	• Denali • Hunter • North Pole E.	• Wed (all day) • Thur (all day) • Mon (all day) • Thur-Flex • Fri-ITT meetings and planning		terri.thompson@k12northstar.org
Joe Wagner	• Lathrop • RSMS	• Mon/Tues/Thur/Fri (a.m. only) • Wed • Fri-ADC (p.m.)	**LHS:** 456-7794 x11567 **Skype:** ak_diamond_joe	joe.wagner@k12northstar.org
Trish Yocum	• Joy • Hutchison High • NPMS	Schedule varies each week dependent upon teacher's schedules & needs. Usually, Mon is Hut and Fri is ADC	**Skype:** tyocum	trish.yocum@k12northstar.org

FNSBSD JOB DESCRIPTION	
Job Title: Integration of Instructional Technology Teacher	
Supervisor: Instructional Technology Coordinator	*Classification:* Certified (FEA)
Days/Months: 190 days; 3 Year Rotating Cycle*	

General Responsibilities

The district wide instructional technology integration teacher supports the integration of technology by:

- Facilitating and inspiring student learning and creativity
- Designing and developing digital age learning experiences and assessments
- Modeling digital-age work and learning
- Promoting and modeling digital citizenship and responsibility
- Engaging in professional growth and leadership

*Positions hired for the school year 2010 – 2011 and beyond will be on a three-year rotating cycle.

Example of Duties

Functions as a district wide employee facilitating the implementation of the district's Educational Technology Plan.

Appropriately and consistently communicates with district staff regarding the implementation of the district's technology plan and dissemination of policies, procedures and related professional development opportunities.

Disseminates information regarding technology resources, emerging technologies, and best practices using technology.

Facilitates or conducts instructional technology-related professional development for district staff, including workshops to introduce new technologies.

Teaches effective instructional technology integration strategies and classroom management in a technology rich environment by modeling lessons with students in the classroom.

Works collaboratively with individuals or groups of staff to integrate technology into instruction.

Participates in curriculum materials review to provide for the integration of instructional technologies in all subject areas. Participates in ongoing development of educational technology resources including yearly curriculum implementation focus.

Serves on technology committees as assigned.

Researches the use of new technologies in instruction, reviews and evaluates hardware, software, and related resources under consideration by the district.

Maintains a working knowledge of district approved hardware and software.

Provides regular written reports and work logs as defined by the supervisor.

Participates in ongoing training and projects related to job responsibilities, including departmental staff meetings
Professionalism:

- Build and foster relationships with colleagues and administration based on professional respect.
- Maintain a positive and safe learning environment for teachers and students.
- Act in accordance with federal and state laws and regulations, district and building policies and procedures, and the Professional Teaching Practices Commission (PTCP) Code of Ethics.
- Maintain a professional attitude and appearance.

Assists teachers with minor troubleshooting of technology.

Performs other job-related duties as assigned.

Equipment Used

A variety of emerging and current technologies used for instruction in the classroom.. Computer software and online resources including word processing, e-mail, Internet browsers, and district-approved educational software.

Primary Working Contacts

Works closely with educators, building administrators, and administrative center staff, including strong coordination with library media and curriculum staff.

Supervision Received and Exercised

Works under the immediate supervision of the Instructional Technology Coordinator.

Unusual Working Conditions

Travels among schools as assigned and as necessary. Some flexible hours and/or calendar adjustments may be required to support professional development.

Qualifications

Education/Certification: Must possess a State of Alaska Teaching Certificate.

Experience: Five (5) years of successful teaching experience. Recent classroom experience preferred. Experience in designing and presenting workshops to adult learners. Experience in the effective use of technology in the classroom. Experience in planning, implementing, and assessing the effective use of technology in the classroom. Experience in classroom management strategies incorporating the use of technology.

Skills: Outstanding written and oral communication skills. Advanced skills in the area of educational technology.

Knowledge: Should possess a working knowledge of educational technology learning theory and methods of integrating such theory across various curriculum areas.

Abilities: Ability to successfully build and foster relationships with colleagues, administration, parents, and school communities. Ability to coach and motivate educators to increasingly integrate technology into instruction.

Appendix J

Class Session Planner

Session 1 choice 9:00-10:30

Title:

Room:

Session 2 choice 10:40-12:00

Title:

Room:

Session 3 choice 12:50-2:15

Title:

Room:

KEYNOTE with Jason Ohler 2:30-3:45
Location: DeWilde Theatre

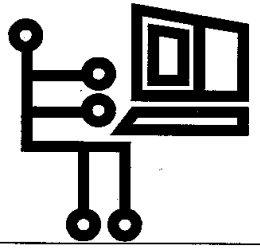
Please make sure you have filled out an evaluation form at the end of the day!

ENJOY THE SUMMER!

Fairbanks Technology & Learning Conference

LEARN TO USE:
GARAGE BAND · CLICKERS · SMART BOARDS · EXAM VIEW · PODCAST TECHNIQUES · IDVD- DIGITAL SCRAPBOOKING & DIGITAL STORYTELLING · IPHOTO · COMIC LIFE · AND MORE!

West Valley High School
May 22, 2008 8:30-3:45 PM



COORDINATORS

UNIVERSITY OF ALASKA FAIRBANKS

This is a free day of learning technology and peripherals that you can use in your classroom!

CREDIT AVAILABLE

One 500-level credit, Pass/Fail
Tuition: $100

Requirements:

- Must attend all three sectionals, the keynote and one other session following the conference (Sign up at the conference)
- Share digital resources with colleagues
- Integrate current technologies into a curriculum based unit plan.

SCHEDULE

Digital Storytelling in the Classroom by Jason Ohler will be available for purchase at $15 cash at the registration table from 8:00 a.m. until 3:45 p.m.
CHECKS ONLY (limited number of books)

8:00-8:30	Coffee/Tea/Rolls (Provided by UAF)	Cafeteria
8:30-8:45	Remarks by Nancy Wagner/Eric Madsen	DeWilde Theatre
8:45-9:00	Workshop Orientation	DeWilde Theatre
Session 1	9:00-10:30	
Session 2	10:40-12:00	
Lunch	12:00-12:50 (on your own)	
Book signing with Jason Ohler 12:30-1:00		
Session 3	12:50-2:15	
Keynote: Jason Ohler	2:30-3:45	

CLASSES

Using Clickers to Engage All Student's

Presenter Tricia Yocum
Location Room 204
Materials

(limit: 15 participants)

Description: Want to get every student actively involved in your lesson? Want to reach those students who never raise their hands? Want to get instant feedback from each student? Try using clickers in your classroom! This hands-on sectional will demonstrate how to create databases, classes, lessons and add questions. Attendees will participate in sample lessons and learn how to share the databases they create.

Podcasting Applications in the Classroom

Presenter Terri Thompson
Location Room 216
Materials Teacher laptops with iMove, GarageBand, iTunes, Photobooth, and FireFox or Sarfari

(limit: 20 participants)

Description: Mrs. Thompson will model lessons using GarageBand Software, discuss classroom applications, activities, and provide a manual containing suggestions for curriculum integration. She'll provide tips and tricks and A How to Guide, as a resource the classroom teacher can reference when using GarageBand.

KEYNOTE ADDRESS 2:30-3:45

Presenter **Jason Ohler**
Location **DeWilde Theatre**

"Beyond Essays: Digital Stories, New Media Narrative and the Emerging Nature of Literacy"

"The Goal is the effective, creative and wise use of technology… to know not only how to use technology, but when and why. To bring together technology, community and learning in ways that work. And while we are at it, to have fun."

CLASSES

SESSION 3 12:50-2:15

Digital Scrapbooks with iDVD

Presenter Tori Brannan
Location **Room 213**
Materials Teacher laptops with iLife 08
(limit: 30 participants)

Description: Making Memory Books for your primary classroom a heady project? Try taking those wonderful pictures you've collected all year and turning them into an individualized DVD masterpiece that the family will always treasure and share widely. A technology award winning teacher and experienced elementary computer teacher will take you through step by step in this creative and rewarding process.

Knowledge Matters: Virtual Business Management

Presenter Sharon Ashlock
Location **PC Lab, Room 202**
Materials Teacher laptops
(limit: 20 participants)

Description: In this session participants will engage with software that teaches students how to manage their own businesses. It covers hiring, managing budgets and employees, as well as good business practices.

Using Technology to Jumpstart Instruction

Presenter Eugenia Andruchowicz, Lauren Johnson, Bjorn Carlson
Location **Room 221**
Materials Teacher laptops

(limit: 30 participants)

Description: Join a trio of dynamic presenters who will show you how to engage, enthuse, and inspire your students with your lessons, using the latest technology. This workshop is guaranteed to jumpstart you in your lesson planning.

CLASSES

SESSION 1 9:00-10:30

Introduction to iPhoto 08

Presenter Bill McKee, Joe Wagner
Location **Room 203**
Materials Teacher laptops and cameras if participants have them
(limit: 20 participants)

Description: Students will learn all the new features in the 08 version, and will use these tools to work with digital images to enhance their curriculum and teaching styles.

Create a "Jeopardy" PowerPoint Game and Other Quiz Shows

Presenter Debby Foster/Danielle Murakami-McClendon
Location **Room 204**
Materials Teacher laptops and questions they may want to include in a jeopardy game
(limit: 15 participants)

Description: The presenters will provide examples and information on how to create a "Jeopardy" PowerPoint game, as well other games. The games are useful as drill and practice, for test review and are very popular for math nights!

Digital Storytelling

Presenter Don Benn
Location **Room 205**
Materials Teacher laptops
(limit: 30 participants)

Description: Will cover how to lead students through the process of creating digital storytelling, including what it takes to make a project successful in your classroom.

ExamView

Presenter Albin Marchant
Location **Room 210**
Materials Teacher laptops
(limit: 15 participants)

Description: Using ExamView to Create custom assessments which can be delivered in a variety of ways. One way, is a via a network.

CLASSES

Comic Life

Presenter Timona Grogan
Location **Room 211**
Materials Laptops will be provided with programs already installed
(limit: 15 participants)

Description: Comic Life is a software program that Arctic Light has on their laptops. Participants of the session will learn how to navigate this program and understand the learning possibilities for their students using Arctic Light Laptops.

SESSION 2 10:40-12:00

Intermediate/Advanced iPhoto 08

Presenter Bill McKee, Joe Wagner
Location **Room 203**
Materials Teacher laptops and cameras if participants have them
(limit: 20 participants)

Description: Using Cameras and photos from the web, teachers will learn how to edit pictures, make slideshows, movies, books and calendars. These finished products will be showcased and used by the teachers integrating their teaching styles during the following years.

Reaching out with Podcasts

Presenter Tori Brannan
Location **Room 213**
Materials Teacher laptops with iLife 08
(limit: 30 participants)

Description: Seems like every student has one, even 1st graders! How can we turn the iPod into a learning tool? Learn simple podcast techniques and ideas from a technology award winning teacher.

VoiceThreads for the classroom

Presenter John Schauer (assisted by Trish Yocum)
Location **Room 214**
Materials Teacher laptops with flashPlayer
(limit: 20 participants)

Description: Use Voicethread.com, a free flash-based web 2.0 collaborative tool, to develop multimedia projects that promote creativity and collaboration.

CLASSES

Introduction to GarageBand 08

Presenter Bill Ernst
Location **Room 216**
Materials Teacher laptops with GarageBand 08
(limit: 20 participants)

Description: This session will introduce GarageBand 08 and its new features (as compared to the prior version). Included will be the use of "Magic GB" podcasting, using loops, using "Real" instruments, and creating background music for projects.

How Smart Teachers Use SmartBoards

Presenter Lindy Kinn
Location **Room 221**
Materials
(limit: 15 participants)

Description: Learn how to create and deliver dynamic and interactive lessons using a SmartBoard. This session will include hands-on exploration with a SmartBoard and an opportunity to share ideas.

File' Resources– a Goldmine at your students' fingertips

Presenter Lyn Ballam
Location **Room 220**
Materials Teacher laptops
(limit: 20 participants)

Description: In this session you will learn about Noodle Tools, WebFeet and the "Digital Pipeline". Find those source documents and have your students create stunning research projects. Best of all it's free!

SESSION 3 12:50-2:15

Voice Threads Projects: Possibilities for the Classroom

Presenter UAF Art Education Students: Rosie Morgan, Joseph Hietala, and Mareca Guthrie
Location **Room 214**
Materials Teacher laptops
(limit: 20 participants)

Description: This presentation will demonstrate how simple it is to create your own voice thread projects. Participants will leave the session with a list of possible applications for classroom use.

Appendix K

MayMixer

May 20, 2010

Randy Smith Middle School

Professional Development Day

TIPS & INFORMATION

- All sessions are held at **Randy Smith Middle School**
- Workshops address all content areas and range from specific grade levels to K-12 sessions:
  - Check out all the offerings before making your selections
- Due to **LIMITED SPACE** for each session, you will need to **REGISTER** by clicking on the link below each course description. When individual workshops are filled, registration links to those particular workshops will be disabled.
- **UAF credit**: Registration will be available during the morning of May 20th - please visit the table (located in the Commons) to get a registration form and pay your $100.00 tuition fee (please make your check payable to FNSBSD)
- All participants who want to receive **1 UAF credit** need to attend all three (3) workshops on May 20th and an additional 10 hours (dates to be determined). Further information will be forthcoming.
- **Laptops** are required for most sessions.
- Lunch on your own from 12:15 to 1:45, Drop in **LUNCH BYTES** will be held during this time (see schedule)
- Coffee and tea service available in the Commons

Plan Your Day

Session 1		
Choice	Title	Location
1		
2		
NOTES:		

Session 2		
Choice	Title	Location
1		
2		
NOTES:		

Session 3		
Choice	Title	Location
1		
2		
NOTES:		

Session 1 9:00-10:30

Class limit	Audience	Workshop	Description	Presenter(s)	Location
20	K-6	**Kerpoof! An online Language Arts Program for K-6 Students**	Need to figure out what to do with primary and intermediate students in the computer lab? Tired of using the same old games on the classroom computers? Kerpoof's multimedia software helps to create original artwork, animated movies, stories, greeting cards and more. Come and learn to use the Kerpoof features, create a teacher account, and browse the lesson plans. --- **You need:** laptop **To REGISTER go to: http://tinyurl.com/yc2yauv**	Bill McKee	204
30	K-12	**20 Sites to Enhance Instruction and Save Time**	Teachers are busy people and need to have their teaching tools readily available. This workshop will introduce several sites that are easy to use yet universal and every teacher the hero. --- **You need**: laptop (suggested) **To REGISTER go to: http://tinyurl.com/ydzfzuo**	David Brannan	206
20	K-12	**SMART Board Tips and Tricks**	Want to know more about your SMART Board? This session will feature information about LCD projector-SMART Board hookup, basic troubleshooting, using the hardware tools, and SMART Notebook lesson creation. Handouts and worksheets will be available. --- **You need:** laptop with SMART Board Tools and SMART Notebook 10 loaded into applications. (This is part of the filewave set sent to every teacher's computer.) **To REGISTER go to: http://tinyurl.com/y9c2o7x**	Bill Ernst	205
20	3-6	**Multimedia Book Report w/PowerPoint templates**	Teachers will learn how to develop multimedia projects with Thinking Maps and will be provided with book report template PowerPoints. Teachers need to have one or two novels selected in advance. During the session they will collect Creative Common maps, charts, or images that relate to the stories. --- **You need:** MacBook or MacBook Pro Laptop; Microsoft PowerPoint 2004 **To REGISTER go to: http://tinyurl.com/ydcoc8h**	Terri Thompson	115

Session 1 9:00-10:30

Class limit	Audience	Workshop	Description	Presenter(s)	Location
30	K-8	**"Couldn't I Just..." Constructing Authentic Math Understanding – Part 1 (continued in session 2)**	Learn how to help students construct their own understanding of math through a guided exploration of the patterns in basic operations and fractions. The focus will be to use alternative algorithms, manipulatives, and teacher-made materials in the context of supporting Everyday Math lessons. --- **You need:** N/A **To REGISTER go to: http://tinyurl.com/y56taq2**	Tom Dolan Scott Darter	126 & 127
15	K-12	**Creating Google Lit Trips Part 1 (continued in session 2)**	Create your own geographic story map by creating a Google Lit Trip! Discover how geographic story mapping can engage students by merging literature and geography to give students a new perspective about story setting. We'll learn the process and start your own Google Lit Trip with a favorite book. --- **You need:** laptop, book with several locations in the story to use for Google lit trip; advisable to set up a FLICKR account **To REGISTER go to: http://tinyurl.com/yas83do**	Trish Yocum	125
15	K-6	**Engaging Students with GPS Lessons - Part 1 (continued in session 2)**	GPS lessons are a great way to get your students moving and learning. Experience a lesson while you learn to find and mark waypoints. Discover that GPS lessons can be highly engaging. This is Session one of a two- part lesson. --- **You need:** laptops, clothing appropriate to be outside and walking around **To REGISTER go to: http://tinyurl.com/yen5r6b**	Lindy Kinn	118
20	K-6	**"Start with Art" and Creative Transitions (will be repeated in Session 3)**	Think you are too busy to fit in art every day? Learn quick and easy ideas to fit art activities into those small bits of time that make up the comings and goings of a daily routine. Also explore motivating ways to get your class to think and move as they switch activities and locations. --- **You need:** N/A (supplies provided) **To REGISTER go to: http://tinyurl.com/y8vh2tv**	Heidi Atkinson Ben Bragonier DeAnn Moore	library

Session 1 9:00-10:30

Class limit	Audience	Workshop	Description	Presenter(s)	Location
15	6-12	**Art & Career Technical; Creating Digital Portfolios with Weebly**	Learn how to create web-based student portfolios of art work, photography, or graphics project using Weebly for Education. Explore how teachers have managed the work flow of creating and saving images, creating student accounts, and building student websites. --- **You need:** laptop wireless access to FNSBSD network; digital camera is optional **To REGISTER go to: http://tinyurl.com/yc36u3w**	John Schauer	130
40	K-12	**How can I use iPod Touches in my Classroom?**	Learn how you can use iPod Touches with students including strategies for management and ways to incorporate RTI. --- **You need:** laptop **To REGISTER go to: http://tinyurl.com/y8bucj6**	Samantha Wuttig	116 & 117

Session 2 10:45-12:15

Class limit	Audience	Workshop	Description	Presenter(s)	Location
20	K-12	**iPhoto for Beginners**	If you have pictures on a camera, and are wondering what's next, this session is for you. Bring your camera (and pictures) and be prepared to import those photos into iPhoto. Participants will learn the basics of photo editing, and be instructed on how to use these photos to make slide shows, cards, calendars and books. ——————— **You need:** laptop and camera	Bill McKee & Joe Wagner	204
30	K-6	**iPod Touch in Elementary Education**	The iPod touch is a portable media player and Wi-fi mobile platform designed and marketed by Apple Inc. The iPod can store, retrieve and play music, videos and photos. It can also connect wirelessly to the internet, allowing users to access websites and email. This course focuses on developing strategies to integrate the iPod touch as a new learning tool into the classroom curriculum to make it more exciting, personalized, innovative, and to empower students to learn at their own pace. ——————— **You need**: laptop (suggested) **To REGISTER go to: http://tinyurl.com/y85qdld**	David Brannan	206
20	3-6	**GarageBand Podcasting Projects**	Teachers will learn how to develop multimedia projects with Thinking Maps and GarageBand in the areas of reading, social studies or science. Teachers need to have one or two topics in mind, and at the session we will collect Creative Commons images that relate to the topic. ——————— **You need:** MacBook or MacBook Pro Laptop; Microsoft PowerPoint 2004 **To REGISTER go to: http://tinyurl.com/ycaxmax**	Terri Thompson	115
20	K-2	**"I'm Done!" Supporting the Reluctant Reviser in the K-2 Writer's Workshop**	Many primary students pay little attention to issues of craft, including revision, during the writing process. This session will explore classroom conditions, strategies, and specific mini-lessons that can be helpful when teachers guide primary students to shape and hone their text. ——————— **You need:** laptop (suggested) **To REGISTER go to: http://tinyurl.com/ye6yclx**	Sue McIntosh	207

Session 2 10:45-12:15

Class limit	Audience	Workshop	Description	Presenter(s)	Location
30	K-8	**"Couldn't I Just..." Constructing Authentic Math Understanding – Part 2**	This is a continuation of the workshop Session 1.	Tom Dolan & Scott Darter	126 & 127
32	3-12	**Using Clickers with Documents**	Learn how to use clickers with your students with existing documents. ——————— **You need:** laptop **To REGISTER go to: http://tinyurl.com/y9kmmdw**	Samantha Wuttig	116 & 117
15	K-6	**Engaging Students with GPS Lessons – Part 2**	This is a continuation of the workshop Session 1.	Lindy Kinn	118
20	K-6	**Drawing Ideas/Practice and Formative Assessment (repeated in Session 3)**	Drawing is a skill and with practice comes improvement and confidence. Using sketchbooks, learn how to guide students through the creative process where they can see their artistic growth and how to use this collective work to formatively assess in a very natural and concrete way. ——————— **You need:** N/A (supplies provided) **To REGISTER go to: http://tinyurl.com/ycechjc**	Karen Stomberg Jenifer Cameron	128
15	K-12	**Creating Google Lit Trips - Part 2**	This is a continuation of the workshop Session 1.	Trish Yocum	125
15	3-12	**Create Google Custom Searches for your Students – Part 1 (continued in session 3)**	Creating a Google Search bar enables your students to search only the websites you have selected. ——————— **You need**: a list of 3 to 5 web sites. **To REGISTER go to: http://tinyurl.com/y2oh6dg**	Lyn Ballam	209

Lunch Bytes 12:15-1:45

Location: RSMS Commons

No registration necessary

[illegible]	[illegible]	[illegible]
Computer Spring Cleaning		Joe Wagner
Widgets	Teachers will explore, identify and discuss classroom applications for widgets.	Terri Thompson
Annotating Pictures in Preview		Bill Ernst
Working with iCal and Zimbra		Bill McKee
Zentangles		Art Center
Photoshop and InDesign – troubleshooting		Art Center
iTunes University	A brief overview of iTunes University and the available resources.	Samantha Wuttig
EDM software – Interactive Teacher Assessment Assistant, Interactive Teacher Lesson Guide		Tom Dolan
Exploration of applications for iPod Touches in the classroom		Trish Yocum
Delicious bookmarks		John Schauer
Foldables	Explore paper based manipulatives for math, science, social studies, reading, and writing.	Tanya Mendelowitz Sue McIntosh
Differentiated instruction, critical building blocks and EDM games		Scott Darter
LMS can help with your DESTINY	Help for anyone who has trouble navigating the Destiny program to book kits either from LMS or the Art Department or find books in the Curriculum Library.	LMS crew
Animoto	Demonstration of a web based program to produce quick videos.	Dianne Marshall

Session 3 1:45-3:15

Class limit	Audience	Workshop	Description	Presenter(s)	Location
20	K-12	**Advanced iPhoto**	This session is designed for those who have experience using iPhoto. Participants will review editing and enhancing photos, as well as tricks and short cuts for using photos for slideshows, movies, books, calendars, cards, web pages. This session will start with a short question and answer period to see where the group would like to go. --- **You need:** laptop (digital camera optional) **To REGISTER go to: http://tinyurl.com/ye3ttlm**	Bill McKee Joe Wagner	204
25	3-12	**Google Earth – Measuring Tools and Layers**	Unleash the power of Google Earth. In this session, we will discuss Google Earth's measuring tools, and their application in social studies, math, and science. We'll then investigate Google Earth Layers, concentrating on Terrain, 3D Buildings, and Street View applications. Handouts and worksheets will be available. --- **You need:** laptop with Google Earth 5.0 software. (This is part of the filewave set sent to every teacher's computer.) **To REGISTER go to: http://tinyurl.com/yb9gyd4**	Bill Ernst	205
20	3-8	**"I'm Done!" Supporting the Reluctant Reviser in Writer's Workshop**	Would you like to better support your student writers as they make critical decisions during the revision process? What effective language can you use to teach leads, voice, structure, supporting detail, setting, mood, and character? This session will offer concrete strategies for teaching craft lessons during small groups or individual writing conferences. --- **You need:** laptop optional **To REGISTER go to: http://tinyurl.com/y97oa8s**	Sue McIntosh	207

Session 3 1:45-3:15

Class limit	Audience	Workshop	Description	Presenter(s)	Location
30	K-12	**Rich Internet Applications for Education**	Rich Internet applications (RIAs) combine the flexibility of desktop applications with the broad reach of the web. RIAs are interactive and engaging, combining an online and offline experience. Students are interested in exploring new ideas and innovations, and teachers are always on the lookout for new ways to engage their students—especially in a time when there are so many distractions. This workshop covers several RIAs and how to integrate them into your instruction. --- **You need**: laptop with Adobe Flash Player Plugin installed (suggested) **To REGISTER go to: http://tinyurl.com/yajfvfs**	David Brannan	206
30	K-6	**Combining Writing and Art to Create a VoiceThread Project**	Learn how to use VoiceThread to share writing and art with parents and families. --- **You need:** laptop **To REGISTER go to:** http://tinyurl.com/ycbc7xc	Samantha Wuttig	116 & 117
20	K-6	**Drawing Ideas/Practice and Formative Assessment (repeat of Session 2)**	Drawing is a skill and with practice comes improvement and confidence. By using sketchbooks, you will learn how to guide students through the creative process where they can see their artistic growth and how to use this collective work to do formative assessment in a very natural and concrete way. --- **You need:** N/A (supplies provided) **To REGISTER go to: http://tinyurl.com/ybfjv37**	Karen Stomberg Jenifer Cameron	128
20	K-6	**"Start with Art" and Creative Transitions (repeat of Session 1)**	Think you are too busy to fit art in every day? Learn quick and easy ideas to fit art activities into those small bits of time that make up the comings and goings of a daily routine. Also, explore motivating ways to get your class to think and move as they switch activities and locations. --- **You need:** N/A (supplies provided) **To REGISTER go to: http://tinyurl.com/yaj77cv**	Heidi Atkinson Ben Bragonier DeAnn Moore	library

Session 3 1:45-3:15

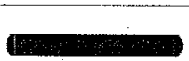
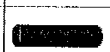
Class limit	Audience	Workshop	Description	Presenter(s)	Location
15	4-12	**Using Exam View Pro Test Generator to Deliver Formative and Summative Assessment with Clickers**	Explore how to use ExamView Pro Test Generator to create assessments. Learn how teachers can deliver teacher-paced and student-paced assessments using clickers. Examine how students can take computer-based assessments on the school network. View reports and analyze formative and summative assessment results. ---------- **You need:** laptop with wireless access to the school network; Exam View Pro software installed **To REGISTER go to: http://tinyurl.com/y924ynf**	John Schauer Kathy Port	130
15	3-12	**Create Google Custom Searches for your Class – Part 2**	This is a continuation of workshop session 2.	Lynn Ballam	209
20	K-12	**Basic Digital Photography**	This class will provide you with some basic skills on adjusting you camera and taking better digital photos. You will be taking, downloading and sharing pictures with your class. ---------- **You need:** laptop required; optional items: digital camera, download cable, camera manual (can be found online) and USB thumb drive. **To REGISTER go to: http://tinyurl.com/y3favf4**	Dianne Marshall	210

□□□ ♦ □□□

Appendix L

Other, please specify		24	7%

8. In the area of TECHNOLOGY INTEGRATION, I would be interested in receiving training in the following topic(s). (Please check ALL that apply.)

Smart Boards		137	40%
PowerSchool Premier		66	19%
AlphaSmarts		28	8%
Apple applications (iMovie, iCal, iPhoto, etc.)		131	39%
Web 2.0 tools (blogging, podcasting, wikis)		96	28%
Destiny - access to library		43	13%
Digital cameras		109	32%
Document cameras		76	22%
Google applications		97	29%
Comic Life		86	25%
Clickers		63	19%
Other, please specify		54	16%

10. In the area of PARENT & COMMUNITY LINKAGE, I would be interested in receiving training in the following topic(s). (Please check ALL that apply.)

Effective communication		124	37%
Parental involvement beyond PT conferences		121	36%
Using Powerschool Premier or other technologies to enhance parent-school relationships		115	34%
Using email to communicate with parents		59	17%
Not interested in this topic		75	22%
Other, please specify		21	6%

12. In the area of PREPARING STUDENTS FOR GRADUATION SUCCESS, I would be interested in receiving training in the following topic(s). (Please check ALL that apply.)

Beyond the attendance policy		72	21%
Identifying students at risk for dropping out		78	23%

Professional Development Needs Assessment 2010-2013

Results Overview

zoomerang

Date: 2/3/2011 5:23 PM PST
Responses: Completes | Partials | Screen Outs
Filter: No filter applied

8. In the area of TECHNOLOGY INTEGRATION, I would be interested in receiving training in the following topic(s). (Please check ALL that apply.) OTHER TOPICS

#	Response
1	creating a webpage
2	Atomic Learning
3	Excel
4	schedule star for activies
5	Smart Boards ONLY if we can actually TRY them.
6	Microsoft Word
7	We're currently getting training in nearly all.
8	TI Navigator and other TI calculator activities
9	Not interested in technology
10	interwrite
11	Word training
12	None
13	Advanced MS Word functions
14	How to use all the functions of word.
15	TI-Navigator
16	None
17	using microsoft word, excel and powerpoint
18	What are smart boards?
19	heart rate monitors and software
20	Geometer's Sketch Pad
21	imovie 08 or imovie 09
22	
23	Use of various multimedia, PC, not just Mac
24	Microsoft Office
25	Fanale, Smart Music & Sabelias
26	Word
27	time to develop lessons using the above technology
28	Excel
29	none!!!!!
30	TI-Navigator
31	nursing programs
32	Excel
33	None
34	creating educational blogs
35	using notepads such as PlasticLogic
36	video cameras

37	Data entry for prevention/intervention specialists
38	Practice actually coming up with a clicker wrksht
39	applications for Smart Boards, not "how to"
40	Boardmaker (Special Education) Visual Schedules
41	chalkboards
42	Dreamweaver
43	Boardmaker
44	AIMS Web; Kid Pix; Kidspiration
45	science data acquisition probeware and technology
46	google Earth
47	making computer labs student friendly for young st
48	we have had it all move on already
49	basic computer - Power Point, word documents
50	photoshop
51	Microsoft OneNote
52	I feel comfortable with the above
53	Teaching resources that others have found helpful
54	Have a doc cam and clickers-just need TIME

Appendix M

Instructional Technology "NEEDS ASSESSMENT SURVEY" - December 2009

zoomerang

Results Overview

Date: 1/20/2010 8:59 AM PST
Responses: Completes
Filter: No filter applied

Instructional Technology ** NEEDS ASSESSMENT SURVEY ** December 2009

I know this is the busiest week of the semester, but I wanted to let you know how important this data will be as we prepare for the next phase of the FNSBSD Technology Blueprint and the technology update to the School Board the second week of January.The Technology Blueprint has provided teacher laptops, LCD projectors, training, and new computer labs. This survey will help guide us as we determine the training needed to help integrate these 'technology' tools into your everyday usage and curriculum next semester and next school year?This survey is easy, all yes or no questions, and you should be able to complete it in 5 minutesI would consider it a personal favor if you would make the time to complete this survey. Your input is critical and the information you provide will help us serve you better. Thank you for your time and I wish you all a very happy holiday season, and some much deserved R & R! Ron Gherman and the entire Instructional Technology Services Department.

1. What is your school?

Actions

AND	[redacted]	17	3%
AWE	[redacted]	12	2%
ARC	[redacted]	24	4%
BGR	[redacted]	17	3%
BNT	[redacted]	13	2%
CRW	[redacted]	26	4%
DNL	[redacted]	13	2%
HTR	[redacted]	10	2%
JOY	[redacted]	20	3%
LAD	[redacted]	15	2%
NDL	[redacted]	11	2%
NPE	[redacted]	24	4%
PLC	[redacted]	20	3%
SAL	[redacted]	9	1%
TIC	[redacted]	15	2%
TRV	[redacted]	10	2%
UPK	[redacted]	22	4%

WLR		17	3%
WRV		10	2%
NPM		31	5%
RSM		18	3%
RYN		25	4%
TAN		23	4%
BEHS		36	6%
HUT		16	3%
LTH		56	9%
NPH		38	6%
WVH		53	9%
BEST		0	0%
FYF		4	1%
GIS		1	0%
	Total	606	100%

Share your experience level using Microsoft's Power Point. I have...

2. Made a Power Point presentation. Actions

Yes		460	76%
No		146	24%
	Total	606	100%

3. Made a Power Point presentation with graphics. Actions

Yes		389	64%
No		217	36%
	Total	606	100%

4. Made a Power Point presentation that contains movies, or custom animation. Actions

Yes		218	36%
No		388	64%
	Total	606	100%

Share your experience level using Microsoft Word. I have...

5. Created, saved, and printed a Word document.

Yes		606	100%
No		0	0%
	Total	606	100%

6. Saved a Word document as a different format (.rtf, .docx, .txt and so on).

Yes		457	75%
No		149	25%
	Total	606	100%

7. Inserted pictures and graphics into a Word document.

Yes		523	86%
No		83	14%
	Total	606	100%

8. Created hyperlinks in a Word document.

Yes		286	47%
No		320	53%
	Total	606	100%

9. Sent a Word document directly as e-mail.

Yes		448	74%
No		158	26%
	Total	606	100%

10. Created a document with complex formatting (multiple columns, text boxes, auto page numbering, headers/footers etc).

Yes		439	72%
No		167	28%
	Total	606	100%

11. Created a mail merge document. Actions

Yes		134	22%
No		472	78%
	Total	606	100%

12. Converted a Word document into a PDF document. Actions

Yes		442	73%
No		164	27%
	Total	606	100%

Share your experience level using Microsoft Excel. I have...

13. Created, saved, deleted Excel spreadsheets. Actions

Yes		474	78%
No		132	22%
	Total	606	100%

14. Inserted columns, rows, and cells. Actions

Yes		487	80%
No		119	20%
	Total	606	100%

15. Used formulas to summarize columns or rows. Actions

Yes		276	46%
No		330	54%
	Total	606	100%

16. Used special math functions for complex data reporting. Actions

Yes		140	23%
No		466	77%

Total	606	100%

17. Created charts / graphs. Actions

Yes	[redacted]	301	50%
No	[redacted]	305	50%
	Total	606	100%

18. Create a workbook with multiple worksheets. Actions

Yes	[redacted]	212	35%
No	[redacted]	394	65%
	Total	606	100%

Share your experience level using eMail. I have...

19. Created, saved, deleted, printed and sent email. Actions

Yes	[redacted]	606	100%
No		0	0%
	Total	606	100%

20. Sent attachments (photographs, documents, files etc). Actions

Yes	[redacted]	598	99%
No	[redacted]	8	1%
	Total	606	100%

21. Created folders to organize e-mail. Actions

Yes	[redacted]	488	81%
No	[redacted]	118	19%
	Total	606	100%

22. Used personal preferences of my email program (rules, signature, spell checking, auto-reply, spam filter). Actions

Yes	[redacted]	442	73%

No	[redacted]	164	27%
	Total	606	100%

23. Sent email as text and HTML. Actions

Yes	[redacted]	244	40%
No	[redacted]	362	60%
	Total	606	100%

24. Imported, exported, and shared calendars dates, appointments, and schedules. Actions

Yes	[redacted]	209	34%
No	[redacted]	397	66%
	Total	606	100%

25. Imported, exported, and looked up contacts in my address book. Actions

Yes	[redacted]	364	60%
No	[redacted]	242	40%
	Total	606	100%

Share your experience level using an imaging device. I have...

26. Scanned photographs and saved them to my computer. Actions

Yes	[redacted]	403	67%
No	[redacted]	203	33%
	Total	606	100%

27. Resized an image. Actions

Yes	[redacted]	451	74%
No	[redacted]	155	26%
	Total	606	100%

28. Enhanced my photographs (colors, remove scratches, contrast etc). Actions

Yes	[redacted]	385	64%
No	[redacted]	221	36%
	Total	606	100%

29. Converted my photographs to a different format (.JPG, .GIF, .TIFF etc). Actions

Yes	[redacted]	315	52%
No	[redacted]	291	48%
	Total	606	100%

Share your experience level using the Network. I have...

30. Logged into our network. Actions

Yes	[redacted]	586	97%
No	[redacted]	20	3%
	Total	606	100%

31. Changed my password. Actions

Yes	[redacted]	423	70%
No	[redacted]	183	30%
	Total	606	100%

32. Moved, copied, saved and deleted documents to my school server. Actions

Yes	[redacted]	427	70%
No	[redacted]	179	30%
	Total	606	100%

33. Printed to different network printers. Actions

Yes	[redacted]	545	90%
No	[redacted]	61	10%
	Total	606	100%

34. Shared files to other users. Actions

Yes	284	47%
No	322	53%
Total	606	100%

35. Connect to a shared drive on the school server. Actions

Yes	365	60%
No	241	40%
Total	606	100%

Share your experience level with Multi-media. I have...

36. Burned a CD and/or DVD that contains data, documents, movies or images. Actions

Yes	445	73%
No	161	27%
Total	606	100%

37. Created an audio CD-ROM with music. Actions

Yes	349	58%
No	257	42%
Total	606	100%

38. Taken, saved, deleted, and shared pictures with a digital camera. Actions

Yes	551	91%
No	55	9%
Total	606	100%

39. Created a podcast. Actions

Yes	80	13%
No	526	87%
Total	606	100%

40. Created and edited a movie. Actions

Yes		281	46%
No		325	54%
	Total	606	100%

41. Added narration, music, graphics, effects, and transitions to a movie. Actions

Yes		256	42%
No		350	58%
	Total	606	100%

42. Imported/exported video files to or from a computer. Actions

Yes		293	48%
No		313	52%
	Total	606	100%

43. Used presentation equipment to give a presentation (LCD projector, Smart Board, audio). Actions

Yes		453	75%
No		153	25%
	Total	606	100%

44. Used classroom response units (clickers). Actions

Yes		196	32%
No		410	68%
	Total	606	100%

Share your experience level using the Internet. I have...

45. Saved a list of bookmarks. Actions

Yes		555	92%
No		51	8%
	Total	606	100%

46. Searched the Internet for lesson plans. Actions

Yes	544	90%
No	62	10%
Total	606	100%

47. Created a web page for a web site. Actions

Yes	248	41%
No	358	59%
Total	606	100%

48. Created a classroom web site, blog, or wiki. Actions

Yes	204	34%
No	402	66%
Total	606	100%

49. Have linked or uploaded a website to Power School. Actions

Yes	100	17%
No	506	83%
Total	606	100%

50. Used key search terms (Boolean, AND, OR, + , "") when searching. Actions

Yes	295	49%
No	311	51%
Total	606	100%

51. Assigned projects or research that required the use of the Internet by my students. Actions

Yes	360	59%
No	246	41%
Total	606	100%

52. Is your knowledge and training on the District-provided online resources adequate to access and utilize these resources? Actions

Yes		355	59%
No		251	41%
	Total	606	100%

53. Do you feel adequately trained to access quality resources on the Internet? Actions

Yes		446	74%
No		160	26%
	Total	606	100%

54. Received training in copyright. Actions

Yes		451	74%
No		155	26%
	Total	606	100%

55. I have used online collaborative tools (Google docs, social networking, social bookmarking, etc). Actions

Yes		310	51%
No		296	49%
	Total	606	100%

Appendix N

2011

July

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October

S	M	T	W	T	F	S
						1
2	3	T	T	T	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

1st Quarter: 44 days

November

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

2nd Quarter: 46 days

Fairbanks North Star Borough School District

520 Fifth Avenue, Fairbanks, AK 99701
www.k12northstar.org

2011

August

11-12	Teacher Work Days
15-17	Professional Development Days
18	First Day for Students

September

5	Labor Day Holiday
23	Early Dismissal–Students
26	Professional Development

October

4-6	HSGQE Retakes
14	End of 1st Quarter
27-28	Parent-Teacher Conferences

November

11	Early Dismissal–Students
24-25	Thanksgiving Holiday

December

19-21	Last 3 Days–Early Dismissal
21	End of 1st Semester
22	Winter Break Starts

2012

January

4	Last Day of Winter Break
5	Teacher Work Day (no school)
6	Professional Development
16	Martin Luther King Jr. Holiday

February

3	Early Dismissal–Students
20-21	Parent-Teacher Conferences

March

9	End of 3rd Quarter
12-16	Spring Break

April

3-6	Testing–All
20	Early Dismissal–Students

May

15-17	Last 3 Days–Early Dismissal
17	Last Day for Students
18	Professional Development Day
21	Teacher Work Day

- School Start/End
- End of Quarter
- T Testing Day
- Teacher Training *(early dismissal)*
- Last 3 days *(early dismissal)*
- Professional Development Day *(no school)*
- Vacation/Holiday *(no school)*
- Parent-Teacher Conferences *(no school)*
- Teacher Work Day *(no school)*
- Tentative make-up days for bad weather

2012

January

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29			

March

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

3rd Quarter: 45 days

April

S	M	T	W	T	F	S
1	2	T	T	T	T	7
8	9	T	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

May

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

4th Quarter: 45 days

June

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Appendix O

Technology Professional Development
Curriculum Cycle

2011 – 2012:

- Language Arts
  - Assessment options
  - On-line components
  - Various tools that support the newly purchased materials
  - Who will deliver:
    - Initial training: publisher
    - Follow support: ITTs and content coaches
  - Continued professional development for My Access!

2012 - 2013

- Social Studies
  - Use of Exam View for Assessments
  - Google Earth
  - Any updated technology support components for the social studies adoption

2013 – 2014

- Math
  - Assessment options using technology – Examview
  - On-line components
  - Various tools that support the newly adopted curriculum

Professional Development Support for On-going Projects:

2011 – 2014

- Continued professional development for iPods and iPads
- Atomic Learning training and monitor usage
- Continued Smartboard training and troubleshooting
- Continued use of:
  - My Access
  - GradeCam
- Continued training on Everyday Math Interactive Assessment Assistant and the Interactive Teacher Lesson Guides
- Exploration of new EDM Examview application
- Continued for-credit courses based on the needs survey
- Early out professional development days

Appendix P

801.22 Unacceptable Uses

Unacceptable uses of district technology are those uses that are counter to the goals and objectives of the school district for professional development or teaching environment, or blatant misuse of district resources. Examples of unacceptable use of district technology which are not permitted include, but are not limited to, the following:

1) any use that violates federal or state statute, local law, or school board policy or regulation;

2) use for personal, commercial, or business ventures. For example, consultant for pay, or sale of goods, or to advertise or solicit funds for personal business, political, religious, or other personal causes;

3) use that violates copyright laws and/or copyright policy (see School Board Policy 971.5) or administrative regulation (see Administrative Regulation 971.5);

4) posting, blogging, writing, creating, editing, transmitting or sending inappropriate communication using technology whether by email, instant messages, text messages, web pages or other method containing but not limited to cyber-bullying and/or unlawful, threatening, abusive, libelous, harassing, obscene, pornographic, sexually explicit, or defamatory information of any kind.

Policy Adopted: June 3, 2008

801.23 Installation of Software

The school district has the authority to standardize the software applications it will purchase, load, and support on its technology. Employees may install updates to approved software applications and may install updates to the operating system. However, altering or modifying the school district's selection of preset software applications is prohibited. Examples of prohibited actions include, but are not limited to:

1) altering the preloaded operating system or applications;
2) loading or installing software applications;
3) changing the computer name;
4) changing or removing operation system extensions;
5) altering security software;
6) taking apart the computer for access to internal parts.

Policy Adopted: June 3, 2008

Fairbanks North Star Borough
School District
520 Fifth Avenue

802.24 Administrative Regulations

Administrative regulations designed to restrict student access to harmful matter on the Internet shall be established. The regulations shall also address the safety and security of students and student information when using electronic mail, chat rooms, and other forms of direct electronic communication. Administrative regulations shall also address educating students as to safe and appropriate use of Internet; notifying students and parents/guardians about authorized uses of district technology; user obligations and responsibilities; and consequences for unauthorized use and/or unlawful activities.

Policy Adopted: June 3, 2008

802.25 Acceptable Technology Use Agreement

Prior to using district technology, each student and his or her parent or guardian shall sign and return an acceptable technology use agreement specifying user obligations and responsibilities. The district staff is not liable for the failure of any technology protection measure, user violations of copyright restrictions, or user mistakes or negligence.

Policy Adopted: June 3, 2008

See Also AR 802.25

802.26 Installation of Software

The school district has the authority to standardize the software applications it will purchase, load and support on its technology. Altering or modifying the school district's selection of preset software applications is prohibited. Examples of prohibited actions include, but are not limited to:

1) altering the preloaded operating system or applications;

2) loading or installing software applications;

3) changing the computer name;

4) changing or removing operation system extensions;

5) altering security software;

6) taking apart the computer for access to internal parts.

Policy Adopted: June 3, 2008

Fairbanks North Star Borough School District

Fairbanks North Star Borough
School District
520 Fifth Avenue

Appendix Q

Student and Teacher Evaluation of Technology Proficiencies Pilot

The FNSBSD is currently exploring the use of two of Learning.com's technology assessments: 21st Century Skills Assessment for Students and Way Find Teacher Assessment. Both these assessments provide psychometrically valid data on how well students grasp critical 21st century skills and how well teachers can use technology.

—21st Century Skills Assessment Student Assessment

- Based on ISTE Standards (NETS-S)
- Tested at the 5th grade level – checking for readiness for Middle School
- Tested at the 8th grade level – checking for proficiency and readiness for High School
- Questions are Multiple Choice/text, Multiple choice/graphic and performance based
- The questions are scored on if the task was accomplished – not the process
- Test has been reviewed nationally and the questions are psychometrically validated
- Reading Level at the 3rd grade for the 5th grade test
- Reading level at the 6th grade level for 8th grade test
- There are 72 scored questions that consist of:
    - 3 questions/per performance indicator, measuring 24 performance indicators
    - 2 questions that are not scored to help their psychomatricians determine the possibility include those questions the following year
- Students are given 45-50 minutes to complete. However, as there are 2 parts to the assessment, they recommend that it be delivered in 2 different class periods to reduce the possibilities of a fatigue factor skewing the scores.

Way Find Teacher Assessment

- Based on ISTE Standards (NETS-T)
- 60 Questions
- 45 – 60 minutes to complete
- Assesses how well teachers can use technology in the classroom
- Some questions very similar to student questions

Pilot In Spring of 2011

- 1 Middle School ~ Ryan~
- 1 Elementary School ~ University Park: scheduled for March 23, 2011

- Will give us information on the effectiveness of this tool for both teachers and students in determining technology proficiencies

March 8, 2011

- Will not be used as an evaluative tool this spring for either teachers or students
- Will help us determine student and teacher proficiencies
    - Students
        - 8th graders need to be proficient in technology per ESEA
        - State is looking at Learning.com as a tool for reporting student proficiencies.
    - Teachers
        - Gage what proficiencies our teachers have/what they lack
        - Help determine a professional development plan for next year
        - State is looking at Learning.com as a tool for reporting teacher proficiencies.

How will FNSBSD use the data this year?

- 5th grade – check student proficiencies – Are we on the right track? What do we need to address in grade 6 – 8 in order to get students proficient?
- *8th grade reporting for E2T2 grant
- Compare 8th grade in E2T2 with cohort group
- 8th – grade – check student proficiencies to help gauge what proficiencies our students have/what they lack
- Checkpoint for district on student and teacher technology proficiencies

March 8, 2011

Appendix R

801.23 Supplemental Software Request Procedure

I. Purpose

School Board Policies 801.23 and 802.26 establish the school district's authority to standardize the purchase, loading and support of all software applications including web-based. This administrative regulation establishes a standardized procedure for the evaluation, approval and acquisition of all supplemental software applications within the school district in order to ensure the software supports the FNSBSD adopted curricula, is compatible with the district's technology infrastructure, and can be supported by the Technology Department.

II. Procedure for Supplemental School or Classroom Based Mobile Learning Device Applications (iApps)

A. Mobile Learning Device Applications (iApps)

1. The district recognizes that the utilization of applications for mobile learning devices in the classroom afford teachers the opportunity to quickly support student learning. Therefore the district will minimize the process for acquisition. Submission of the supplemental software request form (see Appendix A) is not required for iApps.

2. Free iApps: Mobile learning device applications available at no cost may be downloaded to the mobile learning devices without prior administrative approval providing the iApps fall within the guidelines of the Acceptable Uses policy. (see Policies 801.21 and 802.21)

3. Purchasing iApps for a Pool of iDevices: Teachers must receive approval from the building principal before requesting iApps available at a cost. (see iApp request form, Appendix B)

4. Purchasing iApps for Testing and/or Review: The purchase procedure for teachers downloading a single iApp for testing and/or review:

   a. Principals will be aware of the testing account the Technology Department created for each school.
   b. Each building will identify a mobile iDevice as the test device.
   c. Principals shall use petty cash or a field purchase order to purchase a single iTunes card for their building up to $75 in value to be redeemed to the designated testing account.
   d. **iTunes cards are not to be used except to purchase single iApps for testing and/or review on the designated testing account.**

e. School staff may purchase an individual iApp using the school's test device and testing account.

f. District staff must submit iTunes receipts to receive reimbursement for approved iApps purchased with their own resources.

5. Purchasing multiple copies of an iApp (bulk purchase):

a. iApps for bulk purchase must be tested and/or reviewed pursuant to II.A.4 above.

b. Requestor must complete an iApp request form (see appendix B) and submit to principal for approval.

c. Approved iApp request forms shall be submitted to the Technology Department for processing.

i. For total purchases less than $75.00, the Technology Department will expedite purchase of iApps.

ii. For total purchases exceeding $75.00, the request will be forwarded to the Purchasing Department for approval and returned to the Technology Department for processing.

d. Once the iApp license key is received from Apple, the Technology Department will notify the school's iDevice manager, who can then download the purchased iApp.

III. Procedure for Supplemental School or Classroom Based Software

A. Software Request Submission

1. The employee will complete and submit the school district's on-line Supplemental Software Request form at http://apps.k12northstar.org/softwareRequest/ for approval to purchase supplemental software for use on school district computers.

2. The Curriculum and Technology Departments, in conjunction with the software review committee, will evaluate the request and will notify the requesting employee and approving administrator once the evaluation is complete.

3. The software requested may be purchased **only after** the software review committee has given approval for the purchase. The purchase will be made following the standard district purchasing process. (See AR 440.12 and

SOP #PX-010)

B. Guidelines for Review

The software request will be evaluated according to the following criteria:

1. content and support of the district's adopted curriculum to include:
   a. instructional rationale
   b. correlation to district curriculum and/or state grade level expectations

2. technical criteria to include:
   a. compatible/compliant operating system (current approved standard district operating system for Windows or Mac)
   b. hardware requirements
   c. bandwidth requirements

3. whether the application will duplicate functions already available with approved school district software

4. cost of the software, training, annual fees, and/or licensing

5. availability and/or cost of active support from the manufacturer

C. Timeline for Review

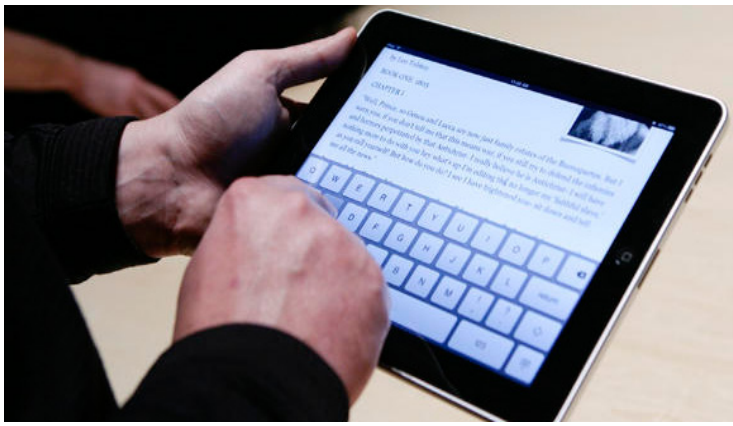
Software requests will be reviewed monthly. The deadline for requests is the first day of the month. The software committee will evaluate the software request and provide a response to the requesting employee/school by the end of that month. All software requests received after the identified deadline will be considered during the subsequent evaluation period.

D. Software Installation

1. Per School Board Policy 801.23, Installation of Software, network services staff will install all software applications.
2. Re-imaging and installation of newly approved and purchased software applications will occur as soon as possible after the software has been received.

E. Ongoing Review of Approved Supplemental Software

1. The software review committee will review approved supplemental software on a regular basis to ensure compatibility with curriculum standards and compliance with district technology specifications.



Technology Department
452.2000 x212

Fairbanks North Star Borough School District

Mobile Devices DOs & DON'Ts

DO

- Do all iApp loading through the device App Store.
- Do consult the district Evaluation Rubric for Apps.
- Do consult iapps.k12northstar.org for recommended and reviewed Apps.
- Contact your designated ITT for assistance or call 452-2000 x212.

NOTE: The district is not responsible for personal devices.

DON'T

- Do not change the iTunes pool account password (If, for any reason the password is changed, notify the District Apps administrator immediately.)
- Do not use a credit card with a district iTunes pool account.
- Do not use an iTunes Gift card with a district iTunes pool account.
- Do not give district iTunes pool account name or password to any entity outside the pool.
- Do not gift an App to a distict iTunes pool account.
- Do not use district iTunes account on a personal device.

iApp Request Form Instructions

Purchasing applications (apps) for iDevices owned by the FNSBSD must be done according to specific guidelines in order to prevent copyright infringement.

An **iApp Request Form** has been created to streamline and guide the purchase process.

iApp Request Form

Date: (1) (mm/dd/yyyy) S.O. #: *Purchasing Dept Use Only*

School/Dept.: (2) Acct. #: (3)

App Title & Vendor (exactly as shown in App store):	Qty	Unit Price	Ext. Price
(4)	(5)	(6)	(7)

Pool(s): (8)

Request Originator: (9) Phone #

Authorized Signature: (10) (Required)

Send request to Information Systems via: Interoffice Mail (cut along dotted line and retain half for your records), fax (452-3312), or e-mail to **iapprequest@k12northstar.org**. Keep a copy for your records.

Questions regarding this form? Please call 452-2000 x 212

1. Order date (mm/dd/yyyy)
2. School/Department name
3. Account number to be billed
4. *Complete* app title and vendor's name (see picture at right)
5. Quantity to be purchased*
6. Price for a single copy of the app
7. Total cost for this request (Qty x Unit Price)
8. Indicate iDevice pool(s)** that will use this app
9. Name of person making request
10. Authorized signature

*Group discount may be applied by Purchasing Department.

**Pools refer to the district-defined user groups that can distribute app licenses to multiple devices. All device pools will be in the form of an email address. For example, the pool name (a.k.a., "account") for the Information Systems Department is ins-dept@apps.k12northstar.org and it has its own unique password. You will be informed of the pools and passwords for your device.

Complete both forms with the same information.
Cut along dotted line. Submit one half to Information Systems.
Keep the other half for your records.

iApp Request Form

Date: _____ (mm/dd/yyyy) S.O. #: *Purchasing Dept Use Only*

School/Dept.:_____ Acct. #:_____ .4615

App Title & Vendor (exactly as shown in App store):	Qty	Unit Price	Ext. Price

Pool(s): _____

Request Originator:_____ Phone #_____

Authorized Signature: _____(Required)

Send request to Information Systems via: Interoffice Mail (cut along dotted line and retain half for your records), fax (452-3312), or e-mail to **iapprequest@k12northstar.org**. Keep a copy for your records.

Questions regarding this form? Please call 452-2000 x 212

iApp Request Form

Date: _____ (mm/dd/yyyy) S.O. #: *Purchasing Dept Use Only*

School/Dept.:_____ Acct. #:_____ . 4615

App Title & Vendor: (exactly as shown in App store):	Qty	Unit Price	Ext. Price

Pool(s): _____

Request Originator:_____ Phone #_____

Authorized Signature: _____(Required)

Send request to Information Systems via: Interoffice Mail (cut along dotted line and retain half for your records), fax (452-3312), or e-mail to iapprequest@k12northstar.org. Keep a copy for your records.

Questions regarding this form? Please call 452-2000 x 212

Evaluation Rubric for IPod Apps

Domain	1	2	3	4
Curriculum Connection	Skill(s) reinforced in the app are not clearly connected to the targeted skill or concept	Skill(s) reinforced are prerequisite or foundation skills for the targeted skill or concept	Skill(s) reinforced are related to the targeted skill or concept	Skill(s) reinforced are strongly connected to the targeted skill or concept
Authenticity	Skills are practiced in a rote or isolated fashion (e.g., flashcards)	Skills are practiced in a contrived game/simulation format	Some aspects of the app are presented an authentic learning environment	Targeted skills are practiced in an authentic format/problem-based learning environment
Feedback	Feedback is limited to correctness of student responses	Feedback is limited to correctness of student responses and may allow for student to try again	Feedback is specific and results in improved student performance (may include tutorial aids)	Feedback is specific and results in improved student performance; Data is available electronically to student and teacher
Differentiation	App offers no flexibility (settings cannot be altered)	App offers limited flexibility (e.g., few levels such as easy, medium, hard)	App offers more than one degree of flexibility to adjust settings to meet student needs	App offers complete flexibility to alter settings to meet student needs
User Friendliness	Students need constant teacher supervision in order to use the app	Students need to have the teacher review how to the use the app on more than one occasion	Students need to have the teacher review how to the use the app	Students can launch and navigate within the app independently
Student Motivation	Students avoid the use of the app or complain when the app is assigned by the teacher	Students view the app as "more schoolwork" and may be off-task when directed by the teacher to use the app	Students will use the app as directed by the teacher	Students are highly motivated to use the app and select it as their first choice from a selection of related choices of apps

Created by Harry Walker – Johns Hopkins University 10/18/2010

Permission for use granted by Harry Walker: 1/28/11

Appendix S

801.27 Disclaimer

The district makes no express or implied warranties of any kind for the network access it is providing. The district will not be responsible for:

1) any damages users suffer including, but not limited to, loss of data resulting from delays, interruption in service, or computer viruses;

2) the accuracy, nature, or quality of information stored on district storage devices including hard drives or servers;

3) the accuracy, nature, or quality of information gathered through district-provided Internet access;

4) property used to access district computers or networks for district-provided Internet access; or

5) any unauthorized financial obligations resulting from district-provided access to the Internet.

Policy Adopted: June 3, 2008

801.28 Unsuitable Material Filters

The Fairbanks North Star Borough School District adheres to the provisions of the Children's Internet Protection Act (CIPA) 47 USC 254. Due care and reasonable precautions will be taken to prevent access to unsuitable material. The superintendent shall ensure that all district computers with Internet access have a technology protection measure that blocks or filters Internet access to child pornography, visual depictions that are obscene or harmful to minors, and shall enforce the operation of the measures.

Policy Adopted: June 3, 2008

801.29 Acceptable Technology Use Agreement

Prior to using district technology, each employee shall sign and return an acceptable technology use agreement specifying user obligations and responsibilities.

Policy Adopted: June 3, 2008

See Also AR 801.29

Fairbanks North Star Borough School District
520 Fifth Avenue

802.22 Unacceptable Uses

Unacceptable uses of district technology are those uses that are counter to the goals and objectives of the school district for optimizing the learning environment, or a blatant misuse of district resources. Examples of unacceptable use of district technology which are not permitted include, but are not limited to, the following:

1) knowingly accessing or visiting, obscene, pornographic, or sexually explicit sites or materials;

2) posting, blogging, writing, creating, editing, transmitting or sending inappropriate communication using technology, whether by email, instant messages, text messages, web pages or other method containing but not limited to cyber-bullying and/or unlawful, threatening, abusive, libelous, harassing, obscene, pornographic, sexually explicit, or defamatory information of any kind.

3) use of hardware and/or software which disrupts or interferes with the safety and welfare of the school community;

4) use occurring or initiated off school property (including home, other private property, business or commercial establishment, or public space) that disrupts or interferes with the educational process or safety and welfare of the school community; and,

5) altering the pre-set school district software applications.

Policy Adopted: June 3, 2008

802.23 Unsuitable Material Filters

The Fairbanks North Star Borough School District adheres to the provisions of the Children's Internet Protection Act (CIPA) 47 USC 254. Due care and reasonable precautions will be taken to prevent access to unsuitable material. The superintendent shall ensure that all district computers with Internet access have a technology protection measure that blocks or filters Internet access to child pornography, visual depictions that are obscene, or harmful to minors, and shall enforce the operation of the measures.

Policy Adopted: June 3, 2008

Fairbanks North Star Borough
School District
520 Fifth Avenue

Appendix T

802.22 Unacceptable Uses

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1) knowingly accessing or visiting, obscene, pornographic, or sexually explicit sites or materials;

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Policy Adopted: June 3, 2008

Fairbanks North Star Borough
School District
520 Fifth Avenue

802.24 Administrative Regulations

Administrative regulations designed to restrict student access to harmful matter on the Internet shall be established. The regulations shall also address the safety and security of students and student information when using electronic mail, chat rooms, and other forms of direct electronic communication. Administrative regulations shall also address educating students as to safe and appropriate use of Internet; notifying students and parents/guardians about authorized uses of district technology; user obligations and responsibilities; and consequences for unauthorized use and/or unlawful activities.

Policy Adopted: June 3, 2008

802.25 Acceptable Technology Use Agreement

Prior to using district technology, each student and his or her parent or guardian shall sign and return an acceptable technology use agreement specifying user obligations and responsibilities. The district staff is not liable for the failure of any technology protection measure, user violations of copyright restrictions, or user mistakes or negligence.

Policy Adopted: June 3, 2008

See Also AR 802.25

802.26 Installation of Software

The school district has the authority to standardize the software applications it will purchase, load and support on its technology. Altering or modifying the school district's selection of preset software applications is prohibited. Examples of prohibited actions include, but are not limited to:

1) altering the preloaded operating system or applications;

2) loading or installing software applications;

3) changing the computer name;

4) changing or removing operation system extensions;

5) altering security software;

6) taking apart the computer for access to internal parts.

Policy Adopted: June 3, 2008

Fairbanks North Star Borough
School District
520 Fifth Avenue

803 Digital Citizenship and Internet Safety

803.1 Purpose

To establish the policy of the School Board on digital citizenship and Internet safety for students of the Fairbanks North Star Borough School District.

Policy Adopted: February 15, 2011

803.2 Policy

It is the intent of the Fairbanks North Star Borough School District to expose students to the power of digital media while fostering responsible digital citizenship and Internet safety in a developmentally and culturally appropriate manner.

A. Digital Citizenship
Students will learn to be good digital citizens. Topics include but are not limited to:

1) respectful and responsible participation in the digital world;
2) protecting their privacy as they respect the privacy of others;
3) respecting the creative work of others;
4) avoiding cyberbullying and other offensive behaviors; and
5) positive conduct that supports collaboration and positive relationships.

B. Internet Safety and Security
Students will learn to stay safe and secure online. Topics include but are not limited to:

1) the benefits and rewards of communicating online;
2) how to recognize inappropriate contact and communication;
3) appropriate online behavior and manners, including interacting with other individuals on social networking websites and in chat rooms;
4) cyberbullying awareness and response;
5) understanding privacy and how to protect it; and
6) reporting to appropriate authorities the discovery or knowledge of inappropriate digital communication.

Fairbanks North Star Borough
School District
520 Fifth Avenue

805 Digital Learning Communities

805.1 Purpose

To establish the policy of the School Board on the use of digital collaboration and communication tools to support connected learning communities for students and teachers in the Fairbanks North Star Borough School District.

Policy Adopted: February 15, 2011

805.2 Policy

The Fairbanks North Star Borough School District values the appropriate application of digital media tools to effectively promote and teach collaboration, communication and digital citizenship. The important lessons of online safety and responsible online expression are best learned while actively engaged in using technology in digital learning communities. Therefore the school district will provide opportunities for students and teachers to safely and responsibly participate in digital learning communities, which protect privacy and ensure student safety. Participation in connected learning experiences with digital media allows students to experience and gain fluency in the collaborative and communication tools businesses and higher education institutions expect from our graduates.

In providing safe and secure access for teachers and students to communicate, collaborate, and learn with digital media, the school district will emphasize planned activities, creative and clear expression, and the development of diverse relationships. This policy supports experimenting with ways to harness the educational value of digital communities that extend teaching and learning experiences beyond school hours and classroom walls.

Policy Adopted: February 15, 2011

Fairbanks North Star Borough
School District
520 Fifth Avenue

Appendix U

802.24 Administrative Regulations

Administrative regulations designed to restrict student access to harmful matter on the Internet shall be established. The regulations shall also address the safety and security of students and student information when using electronic mail, chat rooms, and other forms of direct electronic communication. Administrative regulations shall also address educating students as to safe and appropriate use of Internet; notifying students and parents/guardians about authorized uses of district technology; user obligations and responsibilities; and consequences for unauthorized use and/or unlawful activities.

Policy Adopted: June 3, 2008

802.25 Acceptable Technology Use Agreement

Prior to using district technology, each student and his or her parent or guardian shall sign and return an acceptable technology use agreement specifying user obligations and responsibilities. The district staff is not liable for the failure of any technology protection measure, user violations of copyright restrictions, or user mistakes or negligence.

Policy Adopted: June 3, 2008

See Also AR 802.25

802.26 Installation of Software

The school district has the authority to standardize the software applications it will purchase, load and support on its technology. Altering or modifying the school district's selection of preset software applications is prohibited. Examples of prohibited actions include, but are not limited to:

1) altering the preloaded operating system or applications;

2) loading or installing software applications;

3) changing the computer name;

4) changing or removing operation system extensions;

5) altering security software;

6) taking apart the computer for access to internal parts.

Policy Adopted: June 3, 2008

Fairbanks North Star Borough School District

Fairbanks North Star Borough
School District
520 Fifth Avenue

Appendix V

E. ACTION ITEMS – NEW BUSINESS

E. 1. **Policy 803: Digital Citizenship and Internet Safety (First Reading)** *Ref. Pgs. 14-15*

The administration proposes Policy 803: Digital Citizenship and Internet Safety to establish appropriate opportunities and boundaries for students learning digital media. The Policy Review Committee reviewed and forwards Policy 803 to the Board for its consideration. Bett Schaffhauser, employment and educational opportunity director, is available to answer questions.

■ MOTION is to approve first reading, public hearing, and advancement to second reading of Policy 803: Digital Citizenship and Internet Safety.

Motion by _____ Seconded by _____

Advisory Votes _____ Vote _____

E. 2. **Policy 805: Social Networking (First Reading)** *Ref. Pg. 16*

The administration proposes Policy 805: Social Networking for Students to establish the opportunity for students to learn responsible social networking by engaging in it. The Policy Review Committee reviewed and forwards Policy 805 to the Board for its consideration. Bett Schaffhauser, employment and educational opportunity director, is available to answer questions.

■ MOTION is to approve first reading, public hearing, and advancement to second reading of Policy 805: Social Networking.

Motion by _____ Seconded by _____

Advisory Votes _____ Vote _____

E. * 3. **2011 Legislative Grants Request** *Ref. Pgs. 17-19*

The 2011 state legislative session is under way. The school district annually submits grant requests through the interior delegation for the consideration and approval of the state legislature. Included in the board packet is an introductory memo and proposed grants list for 2011.

MOTION is to approve the 2011 Legislative Grants Request procedure and list as submitted.

E. * 4. **Budget Transfer 2011-075: Certified Substitute Salaries** *Ref. Pgs. 20-21*

Budget transfer 2011-075 aligns districtwide certified substitute salary accounts in the amount of $120,700.

MOTION is to approve Budget Transfer 2011-075: Certified Substitute Salaries in the amount of $120,700.

E. * 5. **Budget Transfer 2011-099: Special Education** *Ref. Pgs. 20 & 22*

Budget transfer 2011-099 converts funds from an unfilled special education teacher at Ticasuk Brown Elementary School to an out-of-district contractor, in the amount of $90,048.

MOTION is to approve Budget Transfer 2011-099: Special Education in the amount of $90,048.

E. * 6. **Budget Transfer 2011-100: Special Education** *Ref. Pgs. 20 & 23*

Budget transfer 2011-100 converts funds from a budgeted occupational therapist position to an out-of-district contractor, in the amount of $96,048.

MOTION is to approve Budget Transfer 2011-100: Special Education in the amount of $96,048.

SCHOOL BOARD POLICY 803:
Digital Citizenship and Internet Safety
February 1, 2011 (First Reading)

803 Digital Citizenship and Internet Safety

803.1 Purpose

To establish the policy of the School Board on digital citizenship and Internet safety for students of the Fairbanks North Star Borough School District.

803.2 Policy

It is the intent of the Fairbanks North Star Borough School District to expose students to the power of digital media while fostering responsible digital citizenship and Internet safety in a developmentally and culturally appropriate manner.

A. Digital Citizenship

Students will learn to be good digital citizens. Topics include but are not limited to:

1) respectful and responsible participation in the digital world;
2) protecting their privacy as they respect the privacy of others;
3) respecting the creative work of others;
4) avoiding cyberbullying and other offensive behaviors; and
5) positive conduct that supports collaboration and positive relationships.

B. Internet Safety and Security

Students will learn to stay safe and secure online. Topics include but are not limited to:

1) the benefits and rewards of communicating online;
2) how to recognize inappropriate contact and communication;
3) appropriate online behavior and manners, including interacting with other individuals on social networking websites and in chat rooms;
4) cyberbullying awareness and response;
5) understanding privacy and how to protect it; and
6) reporting to appropriate authorities the discovery or knowledge of inappropriate digital communication.

C. Research and Information Literacy

Students will learn:

1) effective Internet research;
2) fluency in evaluation of information; and
3) how the Internet can foster creativity and real world problem solving.

Legal reference (47 U.S.C. 254 (h)(5)(b))

(Cross reference: SBP 801.28 Unsuitable Material Filters and SBP 802.23 Unsuitable Material Filters)

SCHOOL BOARD POLICY 805:
Social Networking for Students
February 1, 2011 (First Reading)

805 Social Networking for Students

805.1 Purpose

To establish the policy of the School Board on the provision and use of social networking for students of the Fairbanks North Star Borough School District.

805.2 Policy

The Fairbanks North Star Borough School District values social networking as a useful educational tool and effective communications tool. The important lessons of online safety and responsible online expression are best learned while actually engaged in social networking. Therefore the school district will provide social networking in a controlled environment to ensure student safety while allowing students to experience and gain fluency in the collaborative and communication tools businesses and higher education expect from our graduates. As it establishes the environment for students to access and utilize social networking, the school district will emphasize collaborative and planned activities, creative and clear expression, and the development of diverse relationships. This policy supports experimenting with ways to harness the educational value of social networking for after-school homework help, review sessions, and collaborative projects.

Resolution 2011-06: Projects Request Utilizing Old Funding Source (continued)

Mrs. Hajdukovich reread the life/health safety issues from the resolution and made it clear the board was requesting the ordinance be repealed and a replacement ordinance be crafted regarding the facilities management maintenance fund. The board believed the change would be in the best interest of the district and they would like the opportunity to go before the assembly to make their case.

Mrs. Hull continued to be concerned about the lapsing ordinance. She supported the resolution because the projects were worthy and had to be addressed. But her concern was still the use of operating dollars to address the maintenance issues. The funds which had lapsed to the borough could have been used for student programs and services, which was the original intent of the funds. There would be cuts in the district's budget for next year and even more cuts in the following year.

Mrs. Hull believed the current system that allowed the borough to bond for school major maintenance projects had served the community and district well. She reiterated the use of operating dollars was still a concern to her. She believed the community cared about programs for students and doing things within the school that mattered in reducing the dropout rate and giving the kids the education they needed for the future. If the community was given the choice on whether the funds were spent for operating programs or major maintenance, she believed the community would rank the operating programs higher. As a school board member, Mrs. Hull felt the responsibly to speak up.

Mrs. Hull had been happy to see the revised language stating to move forward on the projects contingent upon the repeal of the ordinance because in the future, the ordinance would continue to be an issue for the district. She felt it was also important to point out that eighty percent of the dollars would be returned to the borough. She hoped when the ordinance was repealed and replaced with a new ordinance that better met the best interests of both the borough and the school district, it would be looked at how the approximate $1.6M in returned funds could be used on things that were part of the district's operating expenses rather than for the things the borough was responsible for in major maintenance.

Mrs. Hull supported the contingency language and resolution. She looked forward to the conversations the board would have on how to replace the existing lapse ordinance.

STUDENT ADVISORY VOTE. AYE
MOTION CARRIED UNANIMOUSLY BY ROLL CALL VOTE. 7 AYES

NEW BUSINESS

Policy 803: Digital Citizenship and Internet Safety (First Reading)
The administration proposed Policy 803: Digital Citizenship and Internet Safety to establish appropriate opportunities and boundaries for students learning digital media. The Policy Review Committee reviewed and forwarded Policy 803 to the board for its consideration.

> MCCONNELL MOVED, HAJDUKOVICH SECONDED, TO APPROVE FIRST READING, PUBLIC HEARING, AND ADVANCEMENT TO SECOND READING OF POLICY 803: DIGITAL CITIZENSHIP AND INTERNET SAFETY.

Superintendent Lewis explained as the district moved into the 21st century the district was responsible for preparing good digital citizenship students. Students must know and understand how to use technology tools and resources in an appropriate and responsible manner. The

Policy 803: Digital Citizenship and Internet Safety (First Reading) (continued)

administration recommended the board's approval for first reading and looked forward to continued discussions and movement in technology over the course of the next several years as the area exploded expeditiously in terms of use and available resources. Students needed to be well prepared for the future.

Bett Schaffhauser, employment and educational opportunity director, described how technology had driven the need for an entirely different classroom than in the past. With technology came the need for new policies to guide the administration. According to the district's Technology Blueprint, the board's goals for technology included affecting student learning through technology standards to improve student achievement; provide adequate infrastructure to support technology goals for student learning; and promote safe and appropriate use of technology resources by students.

With the pace of technology, the district was in somewhat unchartered waters in regard to policy development. There were school districts across the nation moving ahead with providing technology in the classroom, but very few had written policies to guide them in what they were doing. The policies before the board acknowledged the school board was aware of the issues and had the desire to comply with them and were making a good faith effort to keep children safe. The policies showed the school board was being proactive, not reactive when it came to cyber education.

The proposed policy established a curriculum mapping for what the district needed to put before students. It identified the place and time when it happened within the curriculum, along with who would deliver it, and at the appropriate grade level. It also would identify what the district wanted them to know and what they needed to know. Major topics included digital citizenship, Internet safety and security, and research and information literacy.

Also, there was a requirement from the *Protecting Children in the 21st Century Act* which amended the *Children's Internet Protection Act* (CIPA) which required appropriate policies to not only filter visual imagines harmful to children as CIPA did, but all conduct harmful to children which included cyberbullying. The proposed policy addressed cyberbullying in two different areas. When cyberbullying was addressed in the curriculum, students would be learning about cyberbullying awareness, appropriate responses, and how to avoid it and other offensive behaviors.

BOARD QUESTIONS

Mr. Chord asked for the definition of a digital citizen and thought the district already had polices in place addressing the same issues. Ms. Schaffhauser acknowledged the district had acceptable use agreements in place that students signed which covered many of the issues raised in the proposed policy. But the administration felt the proposed policy provided guidance and stated the need to address digital citizenship issues with students. Ms. Schaffhauser explained a digital citizen was a citizen who was aware of how to participate in a digital world; how to protect their privacy, as well as respecting the privacy of others; respecting the work of others (copyright laws); aware of the potential of cyberbullying; and to be a positive presence, as opposed to a negative presence in the digital world and Internet.

Mr. Chord asked about public participation and input in the drafting of the policy. Ms. Schaffhauser explained the Policy Review Committee (PRC) had reviewed it and sent it out to the public for comment prior to being forwarded to the board for consideration. Mr. Chord had shown the policy to a couple of people and received some negative comments. He also voiced concerns about the searching of devices. He felt the issues had to be looked at thoroughly before they became policies.

Policy 803: Digital Citizenship and Internet Safety (First Reading) (continued)

Superintendent Lewis asked Mr. Chord for a clarification on his comments regarding searching devices. Mr. Chord thought he had seen language regarding searching cell phones. Ms. Schaffhauser interjected she thought Mr. Chord might be referring to Policy 804 which addressed cell phones, but had not yet been forwarded by the Policy Review Committee to the board for consideration.

Mrs. Hull noted the proposed policy did not specifically address discipline issues and asked if the existing discipline policies addressing Internet abuse would be revisited. Ms. Schaffhauser stated the discipline policies addressing Internet abuse were not currently scheduled to be reviewed.

PUBLIC COMMENTS
None

BOARD COMMENTS
As chairperson to the Policy Review Committee, Ms. McConnell assured board members and the public the committee had thoroughly reviewed the proposed policies before the board and they had gone out for public comment. The committee took their responsibility seriously and had worked hard on the policies currently before the school board. She added the committee would be forwarding additional policies once the committee had completed their work. Ms. McConnell reiterated Ms. Schaffhauser's earlier remarks regarding the absence of technology policies in many districts.

Mr. Chord thought there needed to be additional conversions and public input. He questioned how the policy would be enforced and who would be responsible for enforcing it. He thought there needed to be more community discussion before adopting the policy.

Mrs. Brophy thought the district was making a good start. Looking at what was happening nationally in regards to cyberbullying and offensive behaviors, she thought it was a good thing the district was putting something in place to address it and educate students on what to do. Oftentimes, it is not until after the fact, that kids realized what they were doing was offensive or negative.

In regards to procedure, Mrs. Brophy explained policies that came before the school board for action were put out for public comment. She stressed the importance of public comments and encouraged the public to participate in the process, including public testimony during first and second reading.

STUDENT ADVISORY VOTE. AYE
MOTION CARRIED BY ROLL CALL VOTE. 6 AYES, 1 NAY: CHORD

Policy 805: Social Networking (First Reading)
The administration proposed Policy 805: Social Networking for Students to establish the opportunity for students to learn responsible social networking by engaging in it. The Policy Review Committee reviewed and forwarded Policy 805 to the board for its consideration.

> MCCONNELL MOVED, HAJDUKOVICH SECONDED, TO APPROVE FIRST READING, PUBLIC HEARING, AND ADVANCEMENT TO SECOND READING OF POLICY 805: SOCIAL NETWORKING.

Policy 805: Social Networking (First Reading) (continued)

Superintendent Lewis stated the proposed policy in regards to social networking was to allow staff to use the tool behind the district's firewall and in a more controlled environment than the open Internet. It would allow students to communicate with each other in a monitored environment to make certain they had the skills necessary for the future. The best way to make certain they had the necessary skills was to have them actually participate in a monitored environment. Superintendent Lewis recommended the board approve first reading of the policy.

BOARD QUESTIONS
Mrs. Hajdukovich asked for a definition of social networking. Ms. Schaffhauser defined social networking as blogs, glossaries, wikis, shared documents, etc. As Superintendent Lewis had stated, student access would be through the district's firewall so access would be limited. Classrooms would be able to have blogs and share messaging between teachers and students. Students would learn the necessary skills but in a protected environment.

Mrs. Hajdukovich asked what age level the policy would address. Ms. Schaffhauser stated access would be age appropriate to the grade level and classroom activity. It was expected access and the use of Internet networking resources would become more sophisticated as students advanced through grade levels.

Mrs. Hajdukovich asked for confirmation the policy would not allow full online access, but rather online access through the district's filters. Ms. Schaffhauser understood access would be through PowerCourse, which was an extension of PowerSchool Premier and it would be managed within the district's access realm.

Ms. McConnell asked if web sites currently blocked by the district would change through the adoption of the policy. Ms. Schaffhauser stated no.

PUBLIC COMMENTS
None

BOARD COMMENTS
None

STUDENT ADVISORY VOTE. AYE
MOTION CARRIED BY ROLL CALL VOTE. 6 AYES, 1 NAY: CHORD

INFORMATION AND REPORTS

Response to Instruction/Intervention (RTI) Update
Roxa Hawkins, assistant superintendent for elementary education, and Toni McFadden, RTI coordinator, provided an update on the Response to Instruction/Intervention (RTI) initiative.

Last year, the district began the introductory phase of Response to Instruction and Intervention (RTI). It was being implemented in various phases in school districts across the nation. RTI had great potential for improving student performance and providing important data about how to best support student success at the classroom and school levels. It offered real-time strategies for monitoring the progress of students and when necessary, allowed staff to make informed decisions about adjusting the interventions needed for students in a very individualized manner. Response to Instruction/Intervention had strong endorsement from major educational groups including the U.S. Department of Education, U.S. Department of Special Education, Alaska's Department of Education and Early Development, and numerous professional organizations.

B. 1. **Adoption of the Agenda (continued)**

■ MOTION is to adopt the agenda with consent items.
Motion by _____ Seconded by _____
Advisory Vote _____ Vote _____

B. 2. **Presentation on Agenda Items**
Any person wishing to speak on an agenda item—action items or information and reports—will have three minutes to testify when that item is before the Board for discussion. There is a limit of one hour total testimony per item.

C. **PUBLIC COMMENTS ON NONAGENDA ITEMS**
Public comments on nonagenda items are limited to three minutes per person for a maximum of one hour. People on the sign-up list will be called first. If there is time, people who did not sign up may address the Board. A person testifying must state their name and address for the record. Board members may ask questions for clarification. Although there is time at the end of each meeting for Board and superintendent comments, some concerns may not be able to be addressed immediately, as additional information may need to be gathered.

Public comments are welcome on programs or ideas the public would like to see added, removed, or changed in the district's 2011-2012 school year budget.

D. **ACTION ITEMS – OLD BUSINESS**

D. 1. **Policy 803: Digital Citizenship and Internet Safety (Second Reading)** *Ref. Pgs. 10-11*
The administration proposes Policy 803: Digital Citizenship and Internet Safety to establish appropriate opportunities and boundaries for students learning digital media. The Policy Review Committee reviewed and forwards Policy 803 to the Board for its consideration. There were no changes from first reading. Bett Schaffhauser, employment and educational opportunity director, is available to answer questions.

■ MOTION is to approve second reading, public hearing, and adoption of Policy 803: Digital Citizenship and Internet Safety.
Motion by _____ Seconded by _____
Advisory Votes _____ Vote _____

D. 2. **Policy 805: Digital Learning Communities (Second Reading)** *Ref. Pgs. 12-13*
The administration edited the proposed policy on social networking after hearing Board comments at first reading. Policy 805 is renamed Digital Learning Communities and focuses on collaboration and communication in a digital learning community. Bett Schaffhauser, employment and educational opportunity director, John Schauer, instructional technology teacher, and Kathy Port, elementary curriculum coordinator, are available to answer questions.

■ MOTION is to approve second reading, public hearing, and adoption of Policy 805: Digital Learning Communities.
Motion by _____ Seconded by _____
Advisory Votes _____ Vote _____

D, * 3. **Monthly Management Reports** *Ref. Pgs. 14-19*
The Monthly Management Reports for January 2011 are provided.

MOTION is to accept the Monthly Management Reports for January 2011.

D. * 4. **Minutes** *See Minutes*

MOTION is to approve the minutes from the special meetings February 1 and 7; the regular meeting February 1; and the work session February 7, 2011, as submitted.

SCHOOL BOARD POLICY 803:
Digital Citizenship and Internet Safety
February 15, 2011 (Second Reading)

803 Digital Citizenship and Internet Safety

803.1 Purpose

To establish the policy of the School Board on digital citizenship and Internet safety for students of the Fairbanks North Star Borough School District.

803.2 Policy

It is the intent of the Fairbanks North Star Borough School District to expose students to the power of digital media while fostering responsible digital citizenship and Internet safety in a developmentally and culturally appropriate manner.

A. Digital Citizenship

Students will learn to be good digital citizens. Topics include but are not limited to:

1) respectful and responsible participation in the digital world;
2) protecting their privacy as they respect the privacy of others;
3) respecting the creative work of others;
4) avoiding cyberbullying and other offensive behaviors; and
5) positive conduct that supports collaboration and positive relationships.

B. Internet Safety and Security

Students will learn to stay safe and secure online. Topics include but are not limited to:

1) the benefits and rewards of communicating online;
2) how to recognize inappropriate contact and communication;
3) appropriate online behavior and manners, including interacting with other individuals on social networking websites and in chat rooms;
4) cyberbullying awareness and response;
5) understanding privacy and how to protect it; and
6) reporting to appropriate authorities the discovery or knowledge of inappropriate digital communication.

C. Research and Information Literacy

Students will learn:

1) effective Internet research;
2) fluency in evaluation of information; and
3) how the Internet can foster creativity and real world problem solving.

Legal reference (47 U.S.C. 254 (h)(5)(b))

(Cross reference: SBP 801.28 Unsuitable Material Filters and SBP 802.23 Unsuitable Material Filters)

805 Digital Learning Communities

805.1 Purpose

To establish the policy of the School Board on the use of digital collaboration and communication tools to support connected learning communities for students and teachers in the Fairbanks North Star Borough School District.

805.2 Policy

The Fairbanks North Star Borough School District values the appropriate application of digital media tools to effectively promote and teach collaboration, communication and digital citizenship. The important lessons of online safety and responsible online expression are best learned while actively engaged in using technology in digital learning communities. Therefore the school district will provide opportunities for students and teachers to safely and responsibly participate in digital learning communities, which protect privacy and ensure student safety. Participation in connected learning experiences with digital media allows students to experience and gain fluency in the collaborative and communication tools businesses and higher education institutions expect from our graduates.

In providing safe and secure access for teachers and students to communicate, collaborate, and learn with digital media, the school district will emphasize planned activities, creative and clear expression, and the development of diverse relationships. This policy supports experimenting with ways to harness the educational value of digital communities that extend teaching and learning experiences beyond school hours and classroom walls.

acknowledged the Expulsions for the 2010-2011 school year, as of February 9, 2011.

acknowledged the Board's Reading File.

acknowledged the Coming Events and Meeting Announcements.

MOTION CARRIED UNANIMOUSLY BY ROLL CALL VOTE. 5 AYES

PUBLIC COMMENT ON NONAGENDA ITEMS

Dana Zimmerman, 370 Little Chena Drive, representing the Heartland Coalition in Alaska, came before the board to seek advice and assistance in marketing a fundraiser for the district's after school programs in need of assistance. Her organization had a country western musician booked to perform at the Carlson Center and would be donating 55 percent of the proceeds to the after school program. Ms. Zimmerman had been in contact with Julie Wild-Curry, after school program coordinator, in regards to the fundraiser. She inquired on how to obtain marketing support from the district and getting information on the fundraiser out to students.

Mrs. Dominique asked if some of the funds could be utilized to start after school programs in schools presently without programs. Ms. Zimmerman answered yes. Superintendent Lewis would follow-up with Ms. Zimmerman.

OLD BUSINESS

Policy 803: Digital Citizenship and Internet Safety (Second Reading)

The administration proposed Policy 803: Digital Citizenship and Internet Safety to establish appropriate opportunities and boundaries for students learning digital media. The Policy Review Committee reviewed and forwarded Policy 803 to the Board for its consideration. There had been no changes from first reading.

> MCCONNELL MOVED, DOMINIQUE SECONDED, TO APPROVE SECOND READING, PUBLIC HEARING, AND ADOPTION OF POLICY 803: DIGITAL CITIZENSHIP AND INTERNET SAFETY.

Bett Schaffhauser, employment and educational opportunity director, reiterated there had been no changes from first reading.

BOARD QUESTIONS

After having looked at the district's current student use of technology policy, Mr. Chord asked for the purpose of the additional policies. Ms. Schaffhauser explained as more technology was provided to students the district needed to provide them with the information they needed to understand what it meant to be a good digital citizen. Also, there were aspects of Internet safety that would also be covered. Nationwide, cyberbullying continued to be an issue. Under new amendments to federal laws, cyberbullying had been expanded to include all kinds of conduct and the district had to have policies to address the issue to comply with federal law. Ms. Schaffhauser went on to explain the policy was the framework for the district to provide curriculum to address digital citizenship and Internet safety with students in a curriculum format.

Mrs. Brophy clarified the district's current technology policies were general policies and the proposed policy addressed more specifics, such as citizenship and how to behave when using digital media. Ms. Schaffhauser stated Mrs. Brophy was correct. When the district started developing technology policies they were very broad, but now they were becoming more specific.

Policy 803: Digital Citizenship and Internet Safety (Second Reading)

Mr. Chord asked for the purpose of being so specific with the policies. He thought the district already had an enormous policy manual and the district already had a technology policy. He asked about the program to enforce the policy. Ms. Schaffhauser stated part of the policy's purpose was to make students aware of the concept of digital citizenship and there was a concern about Internet safety. The policy also established the administration would develop the curriculum on what it meant to be a good digital citizen. It provided direction to the administration to carry out the program.

John Schauer, an instructional technology teacher (ITT) with the district, pointed out the ITT teachers were now under the curriculum department and they had been working on curriculum guidelines over the past year. The curriculum documents were based on the International Society for Technology in Education standards, which were called the National Education Technology Standards for Students. The standards had a specific section on digital citizenship, which was one of the five areas of standards. The policy's purpose stated, "To establish the policy of the School Board on digital citizenship and Internet safety for students of the Fairbanks North Star Borough School District." The district was currently developing the curriculum and sharing ways teachers could help students.

Mr. Schauer noted the songs sung by the University Park Elementary students at the beginning of the meeting were about technology and alluded to the digital world kids lived in today. He believed there was very little distinction between their digital lives and their face-to-face lives. They were part of a global community that reached beyond Fairbanks and their classroom.

Mr. Schauer stated there were about nine different aspects of digital citizenship, from online safety and privacy to contributing appropriately.

Mr. Chord asked Mr. Schauer for his definition of citizenship. Mr. Schauer thought it was a matter of contributing appropriately and participating actively. He noted strong citizenship in the traditional sense of the word was serving the community and participating actively. Today's students were part of a community far beyond Fairbanks. They needed to be safe in that community and participant appropriately and respectively and respect the creative works of other people, all of which were some of the aspects of digital citizenship.

Mr. Chord was very troubled with the word citizenship. Citizenship was not currently mentioned anywhere in the district's policy manual and now it was going to be used for digital citizenship. He wanted to know why citizenship for the country instead of globally wasn't taught. Having come through pre-World War II, Mr. Chord recalled his parents being in the breadline because they didn't have food, but they had been fortunate because they had a farm. Citizenship was a very important word and was not a nebulous term to be just thrown around. Mr. Chord could support the policy if a different term could be used in place of citizenship. To him, digital meant a finger, a toe, etc. He reiterated his concern with the word citizenship, because it meant an entirely different thing to him than just something thrown around. He would push the issue until it was either changed or the board voted him down.

Mr. Chord asked what it would take to change the word citizenship. Mr. Schauer thought if Mr. Chord reviewed the blogs, wikis, and other collaborative online spaces where digital citizenship was discussed he would find many in agreement with his concern about the use of the term citizenship because of the connotation associated with it. But it was the term that had been coined in digital literature such as Jason Ohler's book, *Digital Community, Digital Citizen,* and the policies from the International Society for Technology in Education. The standards for technology education had specifically coined the term digital citizenship.

Policy 803: Digital Citizenship and Internet Safety (Second Reading)

Mr. Schauer recognized citizenship had a very different connotation. When he was in elementary school, students received grades for citizenship. In Mr. Ohler's book, he spoke about how citizenship when he was in school meant going to the library and being really quiet. If you weren't quiet, you were a bad citizen. Recognizing the different connotations of the word citizenship was one of the reasons for all the language changes in policy 805, the other policy which would come before the board later in the meeting. Mr. Schauer reiterated it was the terminology coined in literature.

PUBLIC COMMENTS
Steve Laroe, 2118 Cushman Street, speaking as FEA president, did not have any opposition to policies 803 or 805. He thought policy 803 looked like the building of a curriculum and it was important information for students. But he did ask if the administration had discussed and considered what would happen when a student or teacher was a "bad" citizen and did something with the tools and instruments that harmed others. He thought those types of issues should be considered before policies were changed. He asked if current discipline policies covered the possibility of being a "bad" citizen. If not, he thought those issues should be looked at prior to adopting the policies.

Mr. Laroe was all for moving forward and being proactive in the 21st century, but many times things moved forward with the assumption everyone would be a wonderful responsible person. Unfortunately, there were a number of penal facilities around the country that proved otherwise. Mr. Laroe's question to the board as they considered adopting the policy was what would happen when someone was not a good citizen in using what they had been taught and were using in school.

BOARD COMMENTS
Mrs. Hull stated one of her questions during first reading related to Mr. Laroe's point regarding discipline. She had been assured policies would be put in place and was confident it would occur.

Mrs. Hull was grateful to the Policy Review Committee for the work that had been done. She did not have any opposition to changing the word citizenship, though she thought, as Mr. Schauer had suggested, it was a pretty commonly used term. The use of citizenship, in her mind, did not indicate any reduction in the respect for the country or the more traditional definition for citizenship. She wouldn't oppose a change in the term, but she didn't have any suggestions.

Mrs. Hull thought the policies were important and was grateful to have them. It was important to know how to avoid cyberbullying and use digital media in ways that were respectful and protected peoples' privacy. She thought it was important to have those issues specific in policy to make clear the district's intent. As young people moved into the new world of technology, they had to have the skills to do so in ways that protected them from the very individuals Mr. Laroe referred to, who might have designs on doing something else. She was grateful for the specificity of the policy because it was a new world. As Mr. Chord had stated, digital had an entirely different meaning to Mrs. Hull when she was growing up. But as the young children had been singing in their song earlier in the meeting, they understood all the technology terms and instruments – they were digital natives. She would support the policy.

Ms. McConnell supported the policies but she was not opposed to changing the term citizenship. She suggested the possible use of the term "conduct." She thanked the Policy Review Committee for the work they had done on the policies, as a lot of work had gone into the policies.

Policy 803: Digital Citizenship and Internet Safety (Second Reading)

Mrs. Hull asked Mr. Schauer and Ms. Schaffhauser for their opinions on changing the word citizenship to conduct. Ms. Schaffhauser thought the word conduct was non-specific, whereas digital citizenship, as Mr. Schauer had mentioned, had been coined as the acceptable phrase and was gaining awareness as to its meaning. If the policy was called Digital Citizenship, people would know what the policy addressed as the phrase became more commonplace. If it was Digital Conduct, she thought it was more amorphous and the meaning wouldn't necessarily be clear to people.

Ms. Brophy was not opposed to the language as it was proposed. She thought digital citizenship was a common phrase in current times. She was more concerned on the content of the policy, which she liked. She thought the policy addressed the items that needed to be addressed. Mrs. Brophy thanked everyone for their work on the policy.

MOTION CARRIED BY ROLL CALL VOTE. 4 AYES, 1 NAY: CHORD

Policy 805: Digital Learning Communities (Second Reading)
The administration had edited the proposed policy on social networking after hearing Board comments during first reading. Policy 805 was renamed Digital Learning Communities and focused on collaboration and communication in a digital learning community.

> MCCONNELL MOVED, HULL SECONDED, TO APPROVE SECOND READING, PUBLIC HEARING, AND ADOPTION OF POLICY 805: DIGITAL LEARNING COMMUNITIES.

The administration had revised Policy 805 from the revised copy in the agenda and provided Policy 805: Digital Learning Communities – Draft #2 to board members to replace the copy in the agenda.

> HULL MOVED, MCCONELL SECONDED, TO AMEND THE MAIN MOTION TO SUBSTITUTE POLICY 805: DIGITAL LEARNING COMMUNITIES, AS PRESENTED IN THE AGENDA, WITH THE ADMINISTRATION'S REVISED COPY OF POLICY 805: DIGITAL LEARNING COMMUNITIES - DRAFT #2.

Ms. Schaffhauser explained the substitution was done as a matter of ease. In Draft #2, the administration had amended the agenda version by removing two words, "district-controlled" from line #18 in regards to participating in digital learning communities. She explained the reasoning for removing district-controlled was because students were visiting educational sites that were not controlled by the district, but controlled by their owners and operators. As an example, Ms. Schaffhauser mentioned Kerpoof – multimedia software which was owned and operated by the Walt Disney Company. Using Kerpoof, students could create original artwork and automated movies and stories. Students could interact on the site safely because Walt Disney had safeguards in place, such as only using first names, etc. In order to continue to offer those types of opportunities to students, the words district-controlled had to be removed.

BOARD QUESTIONS ON THE AMENDMENT
None

PUBLIC COMMENTS ON THE AMENDMENT
None

Policy 805: Digital Learning Communities (Second Reading)

BOARD COMMENTS ON THE AMENDMENT
Mr. Chord again voiced his disagreement with the term digital citizenship. He did not agree with the interpretation of the phrase and felt there was a danger in using it. It was not a term to be used frivolously. He thought digital citizenship had a connotation that was global and he did not think it was necessarily good to have something that was globally controlled. Mr. Chord thought the use of digital citizenship was not a good phrase to use.

Superintendent Lewis called for a point of order – the revised policy needed to be accepted by the board prior to board discussion on the content of the policy.

The board voted on the amendment to accept Draft #2 of the policy.

AMENDMENT CARRIED BY ROLL CALL VOTE. 4 AYES, 1 NAY: CHORD

BOARD QUESTIONS ON THE MAIN MOTION
Mrs. Hull liked the changes. She liked the new title – Digital Learning Communities, as social networking had some other connotations. She was in support of making certain students were safe and the district had done what it needed to do to ensure the learning environment was safe for students and they understood how to use the tools of technology. Mrs. Hull thought the policy contributed to an understanding of students being part of a larger community and not just their personal conduct while they were on the Internet.

PUBLIC COMMENTS
None

BOARD COMMENTS
Mrs. Brophy liked the phrase change from social networking to digital learning communities. She thought the new title gave more of an academic view to the policy than social networking.

MOTION CARRIED BY ROLL CALL VOTE. 4 AYES, 1 NAY: CHORD

NEW BUSINESS

Resolution 2011-09: Approving Chinook Montessori Charter School Renewal Application
Chinook Montessori Charter School was completing its fifteenth year of operation and per state statute had to re-apply to have its charter renewed. Chinook Montessori Charter School Inc. had submitted an application for the continued operation of a charter school from July 1, 2011 through June 30, 2021 (under separate cover). The school board held a work-session February 7 to discuss and address any questions regarding the charter application. If approved, the Chinook Montessori Charter School renewal application would be forwarded to the State Board of Education with recommendation for approval.

> HULL MOVED, MCCONNELL SECONDED, TO APPROVE RESOLUTION 2011-09: APPROVING CHINOOK MONTESSORI CHARTER SCHOOL RENEWAL APPLICATION, WITH RECOMMENDATION FOR APPROVAL BY THE STATE BOARD OF EDUCATION.

Superintendent Lewis reported that after the school board's work session, the administration's recommendation was to approve the charter school renewal application and he was recommending the board approve the resolution supporting the charter school's renewal application.