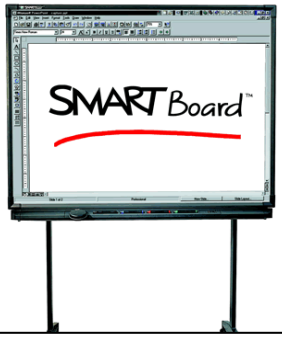
Technology Integration Plan for Gregory School of Science, Mathematics and Technology



New Technology in Each Classroom

Internet Use Across Campus

Increased Computer Use Across Campus

Integrating Technology for School Improvement and the 21st Century Students

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Executive Summary

Gregory Elementary School, open as a science, math, and technology school since 1993, began to lag behind other schools in New Hanover County technologically. At the urging of parents, administrators, and the community, the school board of New Hanover County allotted Gregory Elementary School $730,000 in the fall of 2007. Gregory made a request of the technology needed, and it started being delivered in late 2007 and early 2008. Currently the school has PDA's, SmartBoards, document cameras, LCD projectors, new desktop computers, two mobile laptop "labs", sound amplification systems, and interactive software. This document will serve as a record for the technology that has been received and the training that has been done, as well as a goal and implementation plan that will guide Gregory and help it excel.

The goals of this technology plan are to focus on four main areas: 1) high student performance, 2) quality teachers, administrators, and staff, 3) creating strong family, community, and business support, and 4) infrastructure. Using technology effectively will encourage students to think critically, problem solve, and complete adequate research. Through professional development, educators will gain confidence in using technology and will create richer learning environments for students. In creating strong family, community, and business support, Gregory will continue to improve and serve as an example for other schools. Continually updating and maintaining Gregory's infrastructure will allow the school to accomplish its goals and stay current with new technology. With a focus on these four strands, Gregory will support 21st century learners and educators, and be a model school for New Hanover County.

History of the Project

In 1993, Gregory Elementary School, a school located in downtown Wilmington with a population that included many students from low socioeconomic status families, was given two choices: close down or become a magnet school. At the time, students were not performing well on standardized tests and the county was concerned about the school's decreasing enrollment. The administration, along with the board of education, parents and faculty members, decided to become a magnet school with a focus on science, math, and technology. After a few years, the school's performance increased and people began referring to Gregory as "The Miracle on Ann Street."

On October 25, 2006, in an editorial in The Star News, a parent comments that, "although New Hanover County promotes Gregory School as a magnet with an emphasis upon technology, in actuality other schools receive innovative computer equipment first" (Mack). This concern represented the common belief of parents, faculty, and administration.

As of February 14, 2007, teachers, administrators, and parents began attending county board meetings to make their voices heard that there was a lack of funding and a lack of technology present in a magnet school based on technology (Ross). Gregory's PTA started a technology fund in order to help meet some of the school's needs for the technology.

On February 22, 2007 the school board of New Hanover County planned to apply for a $12 million federal grant for the Magnet Schools Assistant Program (Jervay). The funds were supposed to be used to upgrade the technology at Gregory and start magnet programs at Rachel Freeman Elementary School and Snipes Elementary School. The persistence of those involved paid off, and after 10 years of steadily falling behind the technology curve, Gregory was approved to receive necessary technology it requested.

On March 9, 2007, The Star News quoted Gregory's current principal as saying she would need at least $730,000 in order to make an upgrade to the current technology in the school, and to help with staff development to support the new technology (Mack). It was noted that the money was going to be used for desktop and laptop computers, PDA's, LCD projectors, SmartBoards, interactive learning software, wireless networking, and microscopes. The New Hanover County School system was denied eligibility on May 30, 2007, for the federal grant for the Magnet Schools Assistant Program because the application was turned in six minutes late (Mack). On August 6, 2007, the school board approved the design consultant fee in the amount of $531,530 for Renovations and Improvements at Gregory School of Science, Mathematics, and Technology by LS3P/Boney (Mack).

On October 1, 2007, a concerned parent of a Gregory School student stated that he was shocked to learn that Gregory, a technology oriented school, is behind other schools for technology updates (Allen). He stated that school had started two months ago and the new technology had yet to arrive. The Director of Technology for New Hanover County Schools, and Gregory's Principal both gave reports on the current status of the technology project at Gregory (Allen). The Director stated the timeline for completion for Gregory as being January 3, 2008 (Allen). A concerned board member requested that an update be available at each Board meeting of the progress at Gregory (Allen).

On October 2, 2007, The Star News reported that Gregory was promised $900,000 worth of new technology by January 3, 2008 (Mack). It was also noted that Gregory's computers would be doubled from 102 to 204. In addition, the computer lease for the school's current computers was up in January. The Star News quotes the Director of Technology as saying, "The district plans to have a new lease approved or use money already set aside to purchase more

computers if the lease isn't finalized" (Mack). School board members also agreed to hold special meetings if needed to approve items for the project. By October 30th of 2007, a request was made for the approval of the new computer lease for Williston Middle School and Gregory Elementary School for the 2007-2011 school years in the amount of $261,323.48 (Allen).

On November 13, 2007, the Director of Technology gave the Board an update on the technology project at Gregory (Allen). He stated that teachers had been provided laptops and the bid for the interactive classrooms had been awarded (Allen). In addition, the equipment was scheduled to arrive on December 10, 2007 (Allen).

On December 3, 3007, the Director gave another report on the technology updates at Gregory (Allen). He stated that the printer implementation, campus wireless network, and mobile laptop lab had all been installed and completed (Allen). In addition, 5th grade teachers and the computer resource teacher had received training on the Intel Teach Program, and the Technology Department was scheduled to begin removing computers at Gregory on December 7th in preparation of the arrival of the equipment. It should be noted that the training for other grade levels on the Intel Teach Program was put off until the following school year because of the current technology staff development the school was already receiving.

As of January 7, 2008, Gregory received PDA's, SmartBoards, document cameras, LCD projectors, new desktop computers, a mobile laptop "lab", and interactive software, as well as the first stage of staff development to help the teachers learn how to use all of the new equipment (Mack). $9.9 million is estimated to be paid to renovate the historical building of Gregory as well as provide new furniture and more technology equipment (Mack).

Rationale for the Project

A parent of a 4th grade student at Gregory stated that, "the school lacks adequate resources such as computers to put students ahead of the technological learning curve" (Moore). After 2001, Gregory started to slip behind and its advertisement as a school of technology became misleading. Other non-magnet schools in the county had more computers and better technology than Gregory. For 6 years, the faculty and administration at Gregory asked for more technology to put the school back ahead of the curve. It took a combined effort from the administration, faculty, parents, and other invested community members to make Gregory what it was supposed to be: a school of Math, Science, and Technology. Now, everyone that was involved in the implementation of the technology has a responsibility to implement a new technology plan that will help Gregory continue to excel.

Demographics (Appendix A)

Gregory School of Science, Mathematics and Technology is located within Wilmington (a.k.a the Port City), North Carolina. Wilmington lies in the southeastern part of North Carolina nestled between the Cape Fear River and the Atlantic Ocean. The area was settled in 1732 and was named in honor of Spencer Compton, the Earl of Wilmington, who was Prime Minister under George II. Wilmington and Gregory School of Science, Mathematics and Technology is found within the 198 square miles of New Hanover County

This area has seen a 33% growth rate from 1990-2000 and as of 2007 is home to approximately 188,000 people with a median household of 2.30. Of this population 48.3 percent are males while 51.7 percent are females. Out of a population of 130,292 that are 16 years and older, 86,628 (or 66.5%) are employed and 4,936 (or 3.8%) are unemployed. The median

household income as of 1999 for New Hanover County was $40,172 as the per capita income was $23,123. The racial makeup of the county is as follows: White 80.8 percent, Black or African American 17.3 percent, American Indian and Alaska Native 0.7 percent, Asian 1.0 percent, and other 1.2 percent.

The total school enrollment for New Hanover County is 42, 293 people with 15,133 (or 35.8%) of students in Elementary School (grades 1-8) while the average class size for students from K-Gr. 3 is 21 students and Gr. 4-9 is 26 students. Within the New Hanover County school board there are 1,888 certified staff members with a total of 1,927 classified staff.

Gregory Elementary is comprised of 555 students ranging from Kindergarten to Fifth Grade while 34.2% of these learners are considered to be economically disadvantaged. There are 37 full time teachers therefore, making the student to teacher ratio: 15 students: 1 teacher. As of 2003, 23% of the teachers held advanced degrees, while 98% of all the teachers are considered to be highly qualified teachers. The racial distribution of Gregory Elementary is as follows: Asian 1%, African American 48.1%, Hispanic 1.9%, Native American 0.2%, Asian/Pacific Islander 1.2% and Caucasian 48.6%.

Vision Statement, Mission Statement, and Goals (Appendix B)

Gregory Elementary Science & Technology Magnet School will prepare our students for the 21st Century by developing skills of problem-solving, research and critical thinking. We realize that technology will continue to evolve and in order to produce globally competitive students we must use technology to enhance the teaching learning process and stimulate creativity. Our goals for student achievement and success will be supported by a positive, encouraging global learning community. We believe that paper and pencils are still relevant

tools in the classroom. However, this plan will empower our students and professionals by developing their skills with 21st Century tools. We will integrate technology to develop and enhance life-long skills. By the year 2010, Gregory Elementary Science & Technology Magnet School will be a county-wide model in elementary education through the innovative use of science and technology as the foundation for a rigorous and exciting multidisciplinary learning experience for kindergarten through 5th grade students. Our technology goals and objectives have been formed based on the expectations for students, staff, and community members and are aligned with our state's and district's goals.

If our integration of technology is seamless and appropriate we will see students…

- Finding and evaluating numerous types and quantities of information wisely
- Collaborating with peers and experts through technology, solving problems,
- Inventing alternatives, and presenting solutions
- Communicating through the internet with other classes, experts, other worlds
- Using the Internet for unique and compelling educational experiences, working with experts
- Using Real-time data, taking in virtual tours, and performing interactive online learning
- Using wireless technologies in and out of the school, gathering data on trips,
- Using technology in all core courses and related arts
- Doing homework before and after school in the computer labs
- Presenting their work in class, assemblies, administrative meetings and offsite
- Using laptops or handhelds on a daily basis

If our integration of technology is seamless and appropriate we will see faculty and staff…

- Designing and implementing an innovative, learner-centered curriculum based on current research, the North Carolina Standard Course of Study and National Education Standards
- Establishing school operations and instructional practices that value diverse learning styles and provide rich experiences for all learners
- Researching, developing and advancing best practices for engaging students and parents, training teachers and promoting educational excellence and innovation
- Utilizing statewide resources such as HRMS, BUD, NC WiseOwl, Kaleidoscope, and e-Bistro
- Collaborating with institutions of higher education, community colleges, and other public schools, local school systems are able to maximize professional development programs.
- Presenting to community members and to peers at educational conferences

If our integration of technology is seamless and appropriate we will see parents and community members…

- Engaged in collaborative projects with Gregory students and staff
- Using the Gregory website to stay informed about district and school activities
- Mentoring students; presenting at career days
- Actively supporting the technology of the schools through fund raisers
- Taking part in staff development classes
- Encouraging businesses to interact and support the goals of the schools
- Learning technology from students
- Communicating to school staff through e-mail
- Taking school/district surveys online

The Change Management Team

Planning/Advisory Team	
Maria Greene	Principal
Anne Cobb	Computer Resource Teacher (CRT)
Dorothy Kadala	Media Specialist
Carla Lopez	Teacher (Kindergarten)
Karen Carlton	Teacher (1st grade)
Allison Travis	Teacher (2nd grade)
Jessica Scharff	Teacher (3rd grade)
Amanda Blakley	Teacher (4th grade)
Sabra Robbins	Teacher (5th grade)
Lori Collins	Teacher (Exceptional children)
Dawn Brinson	County Technology Department
Penny Spicer-Sidbury	PTA President
Charlotte Moore	Parent
Implementation Team	
Anne Cobb	CRT
Jessica Scharff	Teacher
Amanda Blakley	Teacher
Evaluation Team	
Maria Greene	Principal
Walter Engle	Assistant Principal

Evaluation of the Technology Plan Goals (Appendix C)

According to the North Carolina Educational Technology Plan, all North Carolina schools are mandated to update their current technology plans. In Wilmington, North Carolina, the Gregory School of Science, Mathematics, and Technology, currently does not have such a plan in place. According to the North Carolina Educational Technology Plan, this is unacceptable because a technology plan needs to be in place that reflects the North Carolina's Strategic Plan for Excellent Schools. The North Carolina Educational Technology Plan points out in the vision statement that, " Planning is most effective when those responsible for the instructional program are involved in designing, implementing, and making decisions about administrative and educational technology. Students are more likely to be successful in achieving in-depth learning when the administrative and teaching staff and the community build a collective vision for technology that is connected to teaching and learning." This statement points out numerous factors that contribute to the successful implementation of a technology plan. It is safe to say that, without careful evaluation and revision, it will be hard to determine the success achieved after implementation of the plan. Adequate professional development of staff members and community involvement will also play a role in the success of the school after implementation. The Gregory Elementary School Technology Plan proposes to evaluate annually over the next 3 years using formative assessments. Early formative assessments by teachers and administrators will help the Media Technology Advisory Committee (MTAC) collect baseline data and catch any initial implementation problems that need to be addressed. At the end of the 3 year period the MTAC and district personnel will conduct a summative evaluation of the plan to determine its school-wide impact on Gregory Elementary. The evaluation will focus on four

areas: 1) high student performance 2) quality teachers, administrators, and staff 3) strong family, community, and business support 4) infrastructure.

Goal 1: High Student Performance

Grade level teams of teachers will be responsible for the review of student work, assessment results, and projects that show evidence of technological advancement in both instruction and student product. Compiled data from teachers will be used by the MTAC to measure achievement in this area. The technology rubric using the National Education Technology Standard indicators will be used for students in all grade levels to evaluate the inclusion of technology in each student's e-portfolio. The MTAC at Gregory will evaluate student portfolios during the benchmark years suggested by NETS (2nd and 5th grades). Classroom wikis and blogs will also be used to document the effectiveness of collaboration between teachers and students. As a part of routine classroom observations and post conferences with teachers, administrators will request evidence that shows how teachers are using the student contributions on the wikis and blogs to plan for instruction. Teachers will track student progress of students by compiling results of NC End-of-Grade tests. As students strive to meet objectives of state academic standards, teachers will closely monitor the achievement gap that exists for African American students and students with low socioeconomic status by disaggregating all available data throughout the year including county benchmark assessments.

Goal 2: Quality Teachers, Administrators, and Staff

The Administrative Team at Gregory will document professional development hours, evaluate lesson plans, conduct staff surveys on professional development seminars, and lead curricular alignment. Additionally, teachers, administrators, and staff will contribute to a professional development wiki as they implement new tools and strategies. During classroom observations

administrators will look for evidence of teachers becoming facilitators in their classrooms. During post observation conferences and walk-throughs administrators will look for evidence of project based instruction. Administrative findings and progress in these areas should be shared with the staff regularly during faculty meetings and/or memos from the administration. At one faculty meeting each month a different grade level must share an activity or strategy that they used with their students. The activity must include the seamless integration of technology and sharing should not take more than 15 minutes of the meeting. Faculty meeting minutes and subsequent posts on the professional development wiki will be included as documentation of these presentations. Reports of regular meetings of the Technology Committee and annual reports of progress developed through the efforts of the MTAC and district administrators will facilitate the evaluation of this area. The MTAC will use the IMPACT evaluation document to conduct focus group surveys.

Goal 3: Strong Family, Community, and Business Support

The school website, wiki, and blogs will document how Gregory is sharing its positive changes within the New Hanover County School System. Posted comments on those sites will also show that Gregory is actually reaching its target audience.

Goal 4: Infrastructure

Annual checklist of equipment purchases and facility upgrades consistent with the technology plan, will document progress in this area. Reports of regular meetings of the Technology Committee and annual reports of progress developed through the efforts of the MTAC and district administrators. The MTAC at Gregory will monitor budgeting and purchasing of all items in the plan.

Indicators for Success (Appendix D)

Indicators for success help the evaluation process. Indicators serve as a rubric or guide that the Change Management Team uses to determine whether or not each goal has been met during the implementation and evaluation processes. It is important to have these outlined for in order to easily determine the level of success throughout each phase of the technology plan. It is our goal to be performing at the fourth level for each indicator by the end of the implementation process.

Implementation Plan (Appendix E)

Gregory School of Science, Mathematics, and Technology's implementation plan is designed to use technology as a tool in all areas rather than as a content area in itself. The implementation plan will map the different phases that will occur over the next three years, as the incorporation of technology becomes a daily routine of Gregory. Each year is a different phase for the implementation plan. The implementation plan is based on the goals and objectives that were listed in the technology plan. The major goals are listed at the beginning of each phase. Gregory has already received all the new technology. Now it is important to successfully implement Gregory's new technology plan. The implementation plan has a timeline to follow. It has benchmarks determined to keep the school on track, indicators to determine the degree of success desired during that phase, and measures that will help evaluate the success of implementation. The implementation plan has been successful when teachers are trained in a full range of technology uses and applications; as well as, when students and teachers are encouraged and provided with the necessary equipment to use technology as an educational tool.

Communication Plan (Appendix F)

After the project is approved, the implementation plan will be presented to administration and faculty during a series of presentations. The administration will be responsible for presenting the information to the media and press. Members from the Change Management Team (principal, assistant principal, and computer resource teacher specifically) will be responsible for sharing it with the press and faculty. A printed plan will accompany presentations given to all teachers at staff meetings. In order to notify parents and families of the changes, newsletters will be sent home and announcements will be made on the school website. Teachers will discuss with their homeroom classes the changes made to the school and the new expectations at the school.

In order to make sure that the communication plan works, the Change Management team will notify all pertinent personnel about updates to the implementation process. The team will make sure that a group of people are assigned the task of putting together newsletters that help to notify students, teachers, faculty, parents, community members, and the media. The team will also ensure that the website is maintained and updated with every update to the implementation plan by the school's Webmaster.

The implementation of the new technology will occur during the summer breaks. In order to complete the implementation, the Change Management team needs to make sure that all pertinent personnel are notified when classrooms are being updated. The first year, the Change Management team will be notifying the teachers and faculty in the new building. The second year, the Change Management team will be notifying the teachers and faculty that will be working in the newly renovated historical building.

Professional Development Plan and Needs Assessment – (Appendix H)

Gregory Elementary School needs to develop a professional development plan in order to ensure that all teachers are proficient with the technology hardware and software available at the school. In addition, teachers need to be trained on best practices to use when integrating technology into other subject areas. The staff development goals include:

- Teachers will utilize technology to teach the information skills objectives.
- Teachers will be adequately trained on how to use the technology hardware and software available at the school.
- Teachers will adhere to the Impact Model guidelines for media and technology.
- Teachers will integrate a variety of technology tools into other content areas in their daily lesson plans.
- Teachers will reflect on the effectiveness of that integration.

A complete needs analysis will be conducted in order to determine the actual status of the teachers' technology proficiency at Gregory. From the needs analysis, the teachers will be divided into three groups: beginner, intermediate, advanced. These groups will allow the trainings to be modified for the individual needs of the teachers. In addition, the data from the needs analysis will specify what areas of technology need to be focused on for the professional development.

The professional development will begin with trainings on the hardware available in the classrooms at the school. After ensuring all teachers are able to successfully operate the hardware, they will be trained on the software programs relevant to their grade and subject

area. The hardware and software workshops will be instructor led with computer based modules available for future reference.

The teachers will also be given workshops on the information skills objectives and the Impact Model. These workshops will begin with a presentation of the basic information, followed by an informal discussion period. After the discussion, the teachers will be given time to plan technology lessons they would like to use in their classrooms during the following month. Upon completion of the initial workshop, planning time will be given monthly for teachers to discuss their technology lessons as well as plan additional lessons. During these planning times, teachers will also reflect on technology integration as a whole and offer suggestions for improvement.

Trainings will be designed and developed by the New Hanover County instructional specialists, the computer resource teacher, and the technology facilitator. In addition, subject matter experts for the hardware, software, and Impact Model may be brought in if necessary for the advanced group of teachers. The trainings will be given over the summer break at Gregory with a small stipend given to the teachers. Those who are unable to attend the trainings will receive their instruction during the beginning workdays or after school.

Rewards and Incentives

Incentives and rewards can be offered to faculty and staff as a form of motivation to continue the support of learning how and actually implementing higher technology skills. Through the offering of incentives Gregory will be celebrating the learning achievements made within the technology education realm. The following are a list of possible rewards for staff support with working on these objectives:

- Educators willing to attend technology based conferences will be invited to attend (2 teachers per conference) without cost. Gregory will budget sending 2 Educators every 3 months to a conference. Included in the trip will be conference fees, lodging for one night, and 5 meals. Gas mileage will be partially reimbursed, but not fully.
- After having completed objectives educators will be awarded certificates to present to the students in their class, with the permission of having a 30 minute fun period during a Friday afternoon while at school.
- Commendable achievements will be described in articles and submitted to local newspapers for public recognition.

The above mentioned are various ideas to be included in the projected budget to support the implementation of the technology plan at Gregory.

Budget (Appendix I)

The salary portion of the chart allots for the employment of 13 professionals who will plan, advise, implement, and evaluate the change in technology. The materials and supplies budget includes items such as printer paper, ink for all printer types. Also included in this portion of the budget are reinforcement materials and extra equipment used for computer operation (extra batteries, extra mice, USB cables, Internet/Ethernet cables, etc.). The equipment portion of the budget includes lease funding for 2007-2011. The 2007-2008 year will be the purchase of the technology lease and the remaining 3 years will show maintenance fees. The optional budget information will be used for various incentives and rewards that will be offered should the actual budget allow funding.

Appendices

Demographics – Appendix A

Demographic Table 1: Profile of General Demographic Characteristics: 2000

Geographic area: New Hanover County, North Carolina

Total population. 160,307

SEX AND AGE	
Male	77,371
Female	82,936
Median age (years)	36.3

RACE	Number of People	Percentage
White	129,542	80.8
Black or African American	27,804	17.3
American Indian and Alaska Native	1,173	0.7
Asian	1,656	1.0
Native Hawaiian and Other Pacific Islander	174	0.1
Some other race	1,777	1.1

Source: U.S. Census Bureau, Census 2000.

Demographic Table 2: Profile of Selected Social Characteristics: 2000

Geographic area: New Hanover County, North Carolina

SCHOOL ENROLLMENT	Number of People	Percentage
Population 3 years and over enrolled in school	**42,293**	**100.0**
Nursery school, preschool	2,921	6.9
Kindergarten	1,893	4.5
Elementary school (grades 1-8)	15,133	35.8
High school (grades 9-12)	7,384	17.5
College or graduate school	14,962	35.4

EDUCATIONAL ATTAINMENT	Number of People	Percentage
Population 25 years and over	**107,671**	**100.0**
Less than 9th grade	3,818	3.5
9th to 12th grade, no diploma	10,938	10.2
High school graduate (includes equivalency)	26,327	24.5
Some college, no degree	24,767	23.0

Associate degree	8,481	7.9
Bachelor's degree	23,985	22.3
Graduate or professional degree	9,355	8.7
Percent high school graduate or higher	x	86.3
Percent bachelor's degree or higher	x	31.0

Source: U.S. Bureau of the Census, Census 2000.

Demographic Table 3: Profile of Selected Economic Characteristics: 2000

Geographic area: New Hanover County, North Carolina

EMPLOYMENT STATUS	**Number of People**	**Percentage**
Population 16 years and over	**130,292**	**100.0**
In labor force	86,628	66.5
Civilian labor force	86,174	66.1
Employed	81,238	62.4
Unemployed	4,936	3.8
Armed Forces	454	0.3
Not in labor force	43,664	33.5

OCCUPATION	**Number of People**	**Percentage**
Management, professional, and related occupations	27,999	34.5
Service occupations	13,416	16.5
Sales and office occupations	21,965	27.0
Farming, fishing, and forestry occupations	193	0.2
Construction, extraction, and maintenance occupations	8,682	10.7
Production, transportation, and material moving occupations	8,983	11.1

INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	369	0.5
Construction	8,130	10.0
Manufacturing	8,001	9.8
Wholesale trade	2,480	3.1

Retail trade	11,407	14.0
Transportation and warehousing, and utilities	3,349	4.1
Information	2,013	2.5
Finance, insurance, real estate, and rental and leasing	5,060	6.2
Professional, scientific, management, administrative, and waste management services	7,693	9.5
Educational, health and social services	16,202	19.9
Arts, entertainment, recreation, accommodation and food services	8,761	10.8
Other services (except public administration)	4,408	5.4
Public administration	3,365	4.1

CLASS OF WORKER

Private wage and salary workers	62,936	77.5
Government workers	11,511	14.2
Self-employed workers in own not incorporated business	6,495	8.0
Unpaid family workers	3296	0.4

INCOME IN 1999	**Dollars**
Households	**68,241**
Median household income	40,172
Median household income with earnings	54,956
Mean earnings	50,104
Families	**42,026**
Median family income	50,861
Per capita income	23,123

Source: U.S. Bureau of the Census, Census 2000.

Goals and Objectives – Appendix B

High Student Performance

Goal 1: Students will be taught utilizing the integration of technology and teachers will reflect on the effectiveness of using technology with the curriculum.

Objectives:
1.1 Students will achieve expected or high growth status in the areas of Math, Reading, and Writing.

1.2 Through the creation of multimedia projects, students will demonstrate proficiency in all subject areas including the computer skills curriculum

1.3 Students will utilize Web 2.0 tools to collaborate with peers and teachers.

1.4 Teachers will integrate technology into their daily lesson plans.

1.5 Teachers will reflect on the effectiveness of integrating technology in the classroom.

1.6 All faculty and staff will participate in shared decision making to help the school meet benchmark goals and state standards.

Quality Teachers, Administrators, and Staff

Goal 2: Goal 2: All members of the faculty will demonstrate appropriate professional development.

Objectives:
2.1 Faculty will ensure that existing technologies are uniformly maintained and to support teachers as they use the technology to strengthen teaching and learning.

2.2 Administrators and technology facilitator will ensure that each professional development team reflects upon how technology is strengthening instruction by contributing regularly to a school wiki or blog that is set up for members of Gregory's professional learning community.

2.3 All teachers will regularly update their webpage to include current objectives and homework assignments so that parents can support instruction outside of school.

2.4 Teachers will use NCWise Owl and other DPI resources regularly to improve technology integration and differentiate instruction.

2.5 All teachers will adhere to the IMPACT guidelines for media and technology programs.

Strong Family, Community, and Business Support

Goal 3: School will launch public awareness initiatives to ensure sufficient allocation of funds.

Objectives:
3.1 Teachers, administrators, and students will improve public relations by inviting the media into the school to see students utilize new and emerging technologies.

3.2 The school webmaster will maintain a website that includes new opportunities for community involvement. The website will include pictures of past activities and podcasts for upcoming events.

3.3 Faculty and staff (including administrators and technology facilitators) will actively seek partnerships with local companies and organizations and vendors to explore emerging technologies.

3.4 Parent and community representatives will be invited to attend meetings for the purpose of previewing and/or purchasing technology with the faculty and staff of Gregory.

Infrastructure

Goal 4: School will provide sound financial and technology infrastructure planning.

Objectives:
4.1 Develop a budget that manages funds for upgrades, maintenance, support, expansion, and additions of technology.

4.2 Maintain an inventory of all technologies at the school and update yearly.

4.3 Allow for all forms of technological equipment to be available to students and faculty.(i.e. Smartboards, digital cameras, document cameras, scanners, laptops, palm pilots, LCD projectors, TV/VCR, printers, calculators, etc.)

Evaluation of Technology Plan Goals – Appendix C

High Student Performance

Goal 1: Students will be taught utilizing the integration of technology and teachers will reflect on the effectiveness of using technology with the curriculum.

Objective	Questions	Measurement Tools
1.1 Students will achieve expected or high growth status in the areas of Math, Reading, and Writing.	Is instruction differentiated for subgroups that didn't make adequate progress last year? Gregory didn't meet AYP last year because Black students and economically disadvantaged students did not score high enough on the math EOG's. Is technology being used to target these students and provide them with additional learning opportunities?	**Benchmark Scores** **Disaggregated EOG Scores**
1.2 Through the creation of multimedia projects, students will demonstrate proficiency in all subject areas including the computer skills curriculum.	Are 100% of students creating these projects? Are any particular subgroups producing a higher quality product than others? Do projects reflect individual affinities and learning objectives or are the projects all cookie cutter (formatted in the exact same manner to reflect teacher requirements)? Do projects meet NCSCOS objectives in particular the technology objectives? Do projects include visual and audio components?	**Electronic Portfolios** **Student Projects at technology fair**

1.3 Students will utilize Web 2.0 tools to collaborate with peers and teachers.	Do students collaborate with classmates and the teacher? Do students collaborate with other classes? Do students collaborate with experts in the real world? Are students **collaborating versus competing** for a grade? Do teachers teach and model collaborative strategies for students? Do student contributions on the class blog or wiki add value to the site? Are teachers using data and input from students to modify units of study? Do students maintain individual pages or group project pages on the wiki?	**Class wikis and blogs** **Student Surveys**
1.4 Teachers will integrate technology into their daily lesson plans.	Are lesson plans regularly reviewed by administrators or the tech committee? Are technology components highlighted in lesson plans? Do students routinely use technology during a lesson or do they mainly watch the teacher use it? Are lessons and units designed with teacher as a coach/facilitator? Are lesson designed to support inquiry based learning?	**Teacher Surveys** **Lesson Plans** **Presentations at Faculty Meetings** (Reserve 10 minutes each month at a faculty meeting for grade level teams to take turns modeling an ideal lesson or best practice. Only 1 grade level presents each month.)

1.5 Teachers will reflect on the effectiveness of integrating technology in the classroom.	As a professional learning community do all teachers routinely post lesson plans and/or ideas on wiki or blog? Do teachers make helpful comments about each others' lesson plans? Do teachers modify plans of other teachers for use in their own classrooms? Do teachers go to the PLC wiki for help with integration ideas?	**PLC (Professional Learning Community) Wiki and Blog** **Teacher Surveys** **Focus Group Findings**
1.6 All faculty and staff will participate in shared decision making to help the school meet benchmark goals and state standards.	In grade level meetings and faculty meetings, do teachers discuss their use of existing technology and challenges they face in trying to utilize it? Are vendors brought in on a regular basis to demonstrate new technology or evaluate the implementation of software at Gregory?	**Grade Level Minutes** **Faculty Meeting Minutes**

Quality Teachers, Administrators, and Staff

Goal 2: All members of the faculty will demonstrate appropriate professional development.

Objective	Questions	Measurement Tools
2.1 Faculty will ensure that existing technologies are uniformly maintained and to support teachers as they use the technology to strengthen teaching and learning.	Does the current technology meet the NC Standard Course of Study? To what extent are technologies available to teachers and students during and beyond the school day? To what extent are the teachers utilizing technology to increase the depth of the students understanding and learning?	**NC Standard Course of Study** **Q&A with students and teachers** **Classroom Data**

2.2 Administrators and technology facilitator will ensure that each professional development team reflects upon how technology is strengthening instruction by contributing regularly to a school wiki or blog that is set up for members of Gregory's professional learning community.	Have the professional development days been effective in helping teachers attain a basic level of technology proficiency? Have the teams created products as a result of their collaborations that have strengthened instruction? Is professional development relevant and reflective of classroom data? Are faculty and staff regularly contributing to the wiki or blog for professional development?	**Wikis and Blogs** **Professional Development** **Questionnaires**
2.3 All teachers will regularly update their webpage to include current objectives and homework assignments so that parents can support instruction outside of school.	How often has the website been updated? Is the website user friendly so parents and students can easily access information? Does the website provide the student with interactive activities that can help in the completion of their homework?	**Website Observation by technology facilitators** **Hit counters on individual web pages**
2.4 Teachers will use NCWise Owl and other DPI resources regularly to improve technology integration and differentiate instruction.	How do staff development activities make use of resources provided by NCWise Owl and other DPI resources? Are instructors and resources meeting the individual's needs and learning style? Are educators utilizing a variety of technological instruction tools?	**Results from focus groups using the IMPACT Evaluation document (Appendix G)** **Student reflective responses and questionnaires**

2.5 All teachers will adhere to the IMPACT guidelines for media and technology programs.	Do teachers collaborate and evaluate instructional activities? Has the Media Technology Advisory Committee (MTAC) been created and is it being effective?	**Results from focus groups using the IMPACT Evaluation document (Appendix G)** **Media Technology Advisory Committee (MTAC)****

Strong Family, Community, and Business Support

Goal 3: School will launch public awareness initiatives to ensure sufficient allocation of funds.

Objective	Questions	Measurement Tools
3.1 Teachers, administrators, and students will improve public relations by inviting the media into the school to see students utilize new and emerging technologies.	Do students use new and emerging technologies daily in the classroom? Do teachers notify administrators of projects or special events using technology? Do administrators notify the media of special events or ongoing projects in the classrooms? Is the school in the media at least once every three months?	**Local newspapers** **Faculty meeting minutes** **Cluster meeting minutes**
3.2 The school webmaster will maintain a website that includes new opportunities for community involvement. The website will include pictures of past activities and podcasts for upcoming events.	Does the website include event notifications for the public? Does the website have a space that includes pictures and products from past activities? Does the website offer podcasts? Does the website include volunteer needs of the school?	**School Website:** • **Podcasts** • **Volunteer needs section** • **Pictures and videos** • **Community section**

3.3 Faculty and staff (including administrators and technology facilitators) will actively seek partnerships with local companies and organizations and vendors to explore emerging technologies.	Does the school participate in conferences with vendors of emerging technologies? Does the school communicate with vendors of previously purchased equipment?	**Conference attendance summary** **Meetings with vendors**
3.4 Parent and community representatives will be invited to attend meetings for the purpose of previewing and/or purchasing technology with the faculty and staff of Gregory.	Are there meetings to preview technology? Do parents and community representatives attend meetings to preview and purchase technology? Does the MTAC committee inform parents of previews or new technology?	**MTAC meeting minutes** **PTA meeting minutes**

Infrastructure

Goal 4 School will provide sound financial and technology infrastructure planning.

Objective	Questions	Measurement Tools
4.1 Develop a budget that manages funds for upgrades, maintenance, support, expansion, and additions of technology.	Is there a current technology plan in place at the school? Does the technology plan include a budget for upgrades, maintenance, support, expansion, and additions? Does the faculty & staff contribute in the decision making process for upgrading technology?	**Technology Budget** **Purchase Order Forms** **Capital Outlay Request** **Grant Submissions**

4.2 Maintain an inventory of all technologies at the school and update yearly.	Is there an inventory of all the technology hardware and software at the school? Is the inventory updated yearly? If not, how often is the inventory updated? Will the Technology Facilitator at the school be responsible for the inventory? If not what individual will? Are both non-asset and fixed-asset materials included in the inventory?	**Fixed Asset Inventory** **Annual Media Technology Reports (AMTR)**
4.3 Allow for all forms of technological equipment to be available to students and faculty. (i.e. Smartboards, digital cameras, document cameras, scanners, laptops, palm pilots, LCD projectors, TV/VCR, printers, calculators, etc.)	What accounting tools will be used to monitor use of technological equipment? Will students be allowed to obtain and use technology equipment without a professional present? Are all forms of technology available to students? Are all forms of technology available to the faculty?	**Check Out/In Log** **School Level Technology Plan** **DPI Technology Equipment Standards** **County Level Technology Plan**

Indicators of Success – Appendix D

Goal 1 Indicator
Technology will enhance the teaching-learning process by deepening student understanding and improving communication between all stakeholders.

Level 4	Technology transforms the learning process for students and teachers. Technology has helped a traditional classroom develop into a 21st Century learning community. Students have moved from cooperative to collaborative learning. Teachers are facilitators. Learning is student directed. Technology is used to differentiate instruction. Students are routinely given opportunities to construct their own learning. Contributions from faculty, students, and the community are esteemed highly. Vendors and real world experts routinely offer their expertise and support to teachers and students. Project based learning is the norm. As a result of the seamless use of technology to support the curriculum students develop life-long learning skills.
Level 3	Technology enhances the learning process for students and teachers. Students have shifted from competitive to cooperative learners. Learning is student centered. Technology is integrated routinely and seamlessly. Students sometimes collaborate with classmates or a teacher on projects. Teachers regularly contribute meaningful comments, best practices, and lesson ideas to the wiki and blog.
Level 2	Technology has some impact on the learning process for students and teachers. All students are basically learning the same thing at the same time. Students use computer applications for productivity and the Internet for research.
Level 1	Technology improves teacher efficiency but has little impact on student learning other than use of productivity software or integrated learning systems that focus on reading and math objectives.

Goal 2 Indicator
Properly preparing educators to use instructional technology, while strengthening the methods of teaching and effectiveness of student learning.

Level 4	Educator has full understanding of instructional technology and technology has been effectively used while catering to individual learning. The use of technology has lead to student centered learning.
Level 3	Educator has successfully utilized instructional technology while catering to the individual students needs and learning styles.
Level 2	Educator has incorporated technology however, not catered to individuals needs and learning style.
Level 1	Educator's use of technology is non existent in teaching methods or student learning.

Goal 3 Indicator
School will improve relations with the public by: improving visibility in the media, maintaining an up-to-date website/podcasts, seeking partnerships with local organizations/vendors, and getting the parents and community members involved in the technology planning.

Level 4	Teachers and administrators invite the public and the media to the school to see students utilizing technology every three months. Students use new and emerging technologies daily in the classroom. Teachers notify administrators of projects or special events using technology in their classrooms monthly. Administrators notify the public and the media of special events or ongoing projects in the classrooms. The school is in the media at least once every three months. The school website includes clearly listed notifications of events occurring. The website has a clearly indicated space that includes pictures and products from past activities, as well as podcasts. It is updated as activities occur. The website has a volunteer section that includes the volunteer needs of the school and is updated weekly. The school participates in technology conferences and workshops with vendors at least four times a year. The school maintains a relationship with vendors of previously purchased technology. The MTAC committee informs staff and parents every time new technology is to be previewed. Meetings are held to preview new technology and parents and staff are invited to every meeting.
Level 3	Teachers and administrators invite the public and the media to the school to see students using technology every four months. Students use new and emerging technologies several times weekly in the classroom. Teachers notify administrators of projects or special events using technologies in their classrooms every two months. The school website includes listed notifications of events occurring. The website has a space that includes pictures and products from past activities, as well as podcasts. Past and present activities on the website are updated after four activities have occurred or one month has passed. The website has a volunteer section that is updated monthly. The school participates in technology conferences and workshops with vendors twice a year. The school maintains a relationship with vendors of previously purchased technology. The MTAC committee sometimes informs staff and parents when new technology is to be previewed. Meetings are held to preview new technology and sometimes parents and staff are invited.
Level 2	Teachers and administrators invite the public and the media to the school to see students using technology twice a year. Students use new and emerging technologies weekly in the classroom. Teachers notify administrators of projects or special events using technologies in their classrooms two times a year. The website has a space that includes pictures and products from past activities, but does not include podcasts. This space is updated after eight activities have occurred or one quarter has passed. The website has a volunteer section that is updated quarterly. The school participates in technology conferences and workshops with vendors once a year. The school sometimes maintains a relationship with vendors of previously purchased technology. The MTAC committee rarely informs staff and parents when new technology is to be previewed. Meetings are held to preview new technology and parents and staff are rarely invited.
Level 1	Teachers and administrators invite the public and the media to the school to see students using technology once a year. Students use new and emerging technologies monthly in the classroom. Teachers notify administrators of projects or special events using technologies in their classrooms once a year. The website has a space that includes pictures and products from past activities. This section is updated after eight activities have occurred or twice yearly. The website has a volunteer section that is updated twice a year. The school does not participate in technology conferences and workshops with vendors throughout the school year. The school does not maintain a relationship with vendors of previously purchased technology. The MTAC committee never informs staff and parents when new technology is to be previewed. Meetings are held to preview new technology and parents and staff are never invited.

Goal 4 Indicator
School will provide technology infrastructure planning and financial planning that will enhance the teaching-learning process by improving the availability of technology.

Level 4	The school has carefully developed a detailed budget that explains how money is spent and where it is allotted. The budget will be the reference guide when determining how much money will be allotted to maintenance of existing technology, upgrades, technology support systems, and expansion by adding new technology. The school will keep a detailed inventory of all technology at the school. The school will check the inventory quarterly. Then the inventory will be updated at the end of each school year. Schools will promote the use of technology in all its forms. The school will require teachers to sign in/out technology. Students will need the permission of their teacher to check out technology for personal use. The school will also make teachers reserve popular technology so that everyone has the chance to use it.
Level 3	The school has developed a budget that details how money is spent and where it is allotted. The school will keep a detailed inventory of all technology at the school. The school will check the inventory twice a year. Then the inventory will be updated at the end of each school year. Schools will promote the use of technology in all its forms. The school will require teachers to sign in/out technology. The school will also make teachers reserve popular technology so that everyone has the chance to use it for three out of the five lesson plans for each week.
Level 2	The school's budget is not carefully planned in terms of where money is going to be spent or how the money is allotted. The inventory gets checked once a year and then turned in at the end of the school year. Sign in/out sheets are not being correctly logged in order to determine teacher use and technology reservations are not be turned in prior to using the technology. The school does not complete the necessary paperwork to try and organize the distribution of technology to each teacher. Teachers only use technology once a week in their classrooms.
Level 1	A budget has been written, but no one is using it to determine allotment of funds. Money is wasted on technology that is new, when maintenance would have proved to be more beneficial. The inventory is not completed until the last day of the school year and then it is submitted. Teachers do not incorporate technology into their lessons because they do not have easy accessibility to the technology.

Implementation Plan – Appendix E

Goals	Indicators	Benchmarks	Measures
Phase I: (2008-2009)			
Outcomes			
Goal 1: Students will be taught utilizing the integration of technology and teachers will reflect on the effectiveness of using technology with the curriculum.	Students will be able to demonstrate some proficiency in Math and Reading standardized tests attributable to technology use. Teachers will integrate technology, at least once a week, into their lesson plans.	Proficiency with classroom technology, related to reading and math, will increase by 10% by the end of the 2008-2009 school year. By the end of the 2008-2009 school year, teachers will have developed lesson plans that integrate technology in at least one lesson plan a week.	Measurements of students: • Quarterly assessments • Establishing Electronic Portfolios • End-of-Grade Scores • Measurements of Teachers: • Weekly Lesson plans • Teacher evaluations by observers
Goal 2: All members of the faculty will demonstrate appropriate professional development.	Faculty will attend professional development workshops, and demonstrate some proficiency with all technology used in their classrooms.	By the end of the 2008-2009 school year, faculty will demonstrate proficiency in 50% of the software and hardware implemented at the school.	Completed Teacher questionnaires Completed Teacher surveys NCSCOS Results from focus groups using the IMPACT Evaluation document (Appendix G) Impact Evaluation

Goal 3: School will launch public awareness initiatives to ensure sufficient allocation of funds.	Webmaster will maintain and update the school website that includes all events that will be happening around the school during the implementation process. Faculty will establish relationships with community members, local companies, and local organizations.	By the end of the 2008-2009 school year, teachers and administrators invite the public and the media to the school to see students utilizing technology once a year. The website will be maintained and will include all activities and volunteer needs.	School Website Maintains: Podcasts Volunteer needs section Pictures and videos Community section PTA Meeting Minutes MTAC Meeting Minutes
Goal 4: School will provide sound financial and technology infrastructure planning.	All infrastructure objectives have been achieved and the budget and inventory will be checked twice annually.	By the end of 2011 all infrastructure goals have been achieved and the inventory is up-to-date with detailed inventory reports for each year.	School budget School technology inventory MTAC meeting notes Annual media technology reports DPI technology equipment standards

Phase II: (2009-2010)			
Outcomes			
Goal 1: Students will be taught utilizing the integration of technology and teachers will reflect on the effectiveness of using technology with the curriculum.	Students will be able to demonstrate moderate proficiency in Math and Reading standardized tests attributable to technology use. Teachers will integrate technology, at least three times a week, into their lesson plans.	Proficiency with classroom technology, related to reading and math, will increase by 15% by the end of the 2009-2010 school year. By the end of the 2009-2010 school year, teachers will have developed lesson plans that integrate technology in at least three lesson plans a week.	Measurements of students: • Quarterly assessments • Establishing Electronic Portfolios • End-of-Grade Scores Measurements of Teachers: • Weekly Lesson plans • Teacher evaluations by observers
Goal 2: All members of the faculty will demonstrate appropriate professional development.	Faculty will attend professional development workshops, and demonstrate moderate proficiency with all technology used in their classrooms.	By the end of the 2009-2010 school year, faculty will demonstrate proficiency in 75% of the software and hardware implemented at the school.	Completed Teacher questionnaires Completed Teacher surveys NCSCOS Results from focus groups using the IMPACT Evaluation document (Appendix G) Impact Evaluation

Goal 3: School will launch public awareness initiatives to ensure sufficient allocation of funds.	Webmaster will maintain and update the school website that includes all events that will be happening around the school during the implementation process. Faculty will cultivate relationships with community members, local companies, and local organizations.	By the end of the 2009-2010 school year, teachers and administrators invite the public and the media to the school to see students utilizing technology twice a year. The website will be maintained and will include all activities and volunteer needs.	School Website Maintains: Podcasts Volunteer needs section Pictures and videos Community section PTA Meeting Minutes MTAC Meeting Minutes
Goal 4: School will provide sound financial and technology infrastructure planning	All infrastructure objectives have been achieved and the budget and inventory will be checked three times annually.	By the end of 2011 all infrastructure goals have been achieved and the inventory is up-to-date with detailed inventory reports for each year.	School budget School technology inventory MTAC meeting notes Annual media technology reports DPI technology equipment standards

Phase III: (2010-2011)			
Outcomes			
Goal 1: Students will be taught utilizing the integration of technology and teachers will reflect on the effectiveness of using technology with the curriculum.	Students will be able to demonstrate proficiency in Math and Reading standardized tests attributable to technology use. Teachers will integrate technology with their daily lesson plans.	Proficiency with classroom technology, related to reading and math, will increase by 20% by the end of the 2010-2011 school year. By the end of the 2010-2011 school year, teachers will have developed lesson plans that integrate technology in daily lesson plans.	Measurements of students: • Quarterly assessments • Establishing Electronic Portfolios • End-of-Grade Scores Measurements of Teachers: • Weekly Lesson plans • Teacher evaluations by observers
Goal 2: All members of the faculty will demonstrate appropriate professional development.	Faculty will attend professional development workshops, and demonstrate proficiency with all technology used in their classrooms.	By the end of the 2010-2011 school year, faculty will demonstrate proficiency in 100% of the software and hardware implemented at the school.	Completed Teacher questionnaires Completed Teacher surveys NCSCOS Results from focus groups using the IMPACT Evaluation document (Appendix G) Impact Evaluation

Goal 3: School will launch public awareness initiatives to ensure sufficient allocation of funds.	Webmaster will maintain and update the school website that includes all events that will be happening around the school during the implementation process. Faculty will maintain relationships with community members, local companies, and local organizations.	By the end of the 2010-2011 school year, teachers and administrators invite the public and the media to the school to see students utilizing technology every three months. The website will be maintained and will include all activities and volunteer needs.	School Website Maintains: Podcasts Volunteer needs section Pictures and videos Community section PTA Meeting Minutes MTAC Meeting Minutes
Goal 4: School will provide sound financial and technology infrastructure planning.	All infrastructure objectives have been achieved and the budget and inventory will be checked four times annually.	By the end of 2011 all infrastructure goals have been achieved and the inventory is up-to-date with detailed inventory reports for each year.	School budget School technology inventory MTAC meeting notes Annual media technology reports DPI technology equipment standards

Communication Plan – Appendix F

Phase	What's Happening?	Who should be notified?	How will they be notified and by whom?
Introduction	All upcoming events related to each phase of the implementation need to be updated on the website and announced to all personnel and interested parties.	Administration Teachers Parents and Students Community Members IT Department Media	Webmaster will ensure that updates are distributed to all pertinent personnel, families, and media via the school website. Change Management team will assist the webmaster in announcing updates to school personnel. PTA meetings and newsletters
Phase 1 Year One 2008-2009	Electrical upgrade to all the classrooms in the main building During the first year, the historical building will be renovated, make sure that electrical upgrades occur during the remodeling Update server for the school All teachers and faculty trained in new technology Purchases: • Furniture • Computers • Software • LCD projectors • Smartboard • Microphone & Speakers Installation: • Software Installs • LCD projector • Internet switchboxes • Microphones & Speakers	School Administration Teachers Students Parents Community Members IT Department Media	The school's Webmaster will update the school website to reflect the status of each phase of the implementation plan. Change Management Team will complete installation during summer break. The team that is in charge of Implementation will notify teachers of training schedule through staff meetings, website announcements, web calendar, and faculty newsletters.

Phase 2 Year Two 2009-2010	All teachers and faculty trained in new technology Professional development seminars	School Administration Teachers Students Parents Community Members IT Department Media	The school's Webmaster will update the school website to reflect the status of each phase of the implementation plan. Change Management Team will complete installation during summer break. The team that is in charge of Implementation will notify teachers of training schedule through staff meetings, website announcements, web calendar, and faculty newsletters.
Phase 3 Year Three 2010-2011	All teachers and faculty trained in new technology Professional development seminars	School Administration Teachers Parents Students Community Members IT Department Media	The school's Webmaster will update the school website to reflect the status of each phase of the implementation plan. Change Management Team will complete installation during summer break. The team that is in charge of Implementation will notify teachers of training schedule through staff meetings, website announcements, web calendar, and faculty newsletters.

IMPACT Evaluation Document – Appendix G

Implementation of the IMPACT Model may be evaluated by the MTAC using the following guided reflection questions.

- **What impact does a supportive environment have on media and technology access and use?**
- **What impact do media, technology, and collaboration have on the total school program?**
- **What impact does communication have on the total school program?**
- **What impact do research-based practices in technology, literacy, and information skills have on student learning?**
- **Does integration of technology/information skills throughout the curriculum enhance student learning?**
- **What areas of the curriculum can most effectively be enhanced with technology/ information skills?**
- **Does the use of technology as a learning tool improve student achievement?**
- **To what extent is data used in making decisions about hardware/software allocations and selection of media resources?**
- **To what extent are technology and media resources accessible to all students?**
- **To what extent are technical support personnel provided and technical support procedures implemented?**
- **To what extent are technology and media resources accessible during and beyond the school day?**
- **To what extent has the school established and maintained an effective communications system?**
- **To what extent does the school support and promote collaboration?**
- **To what extent are procedures used to monitor, evaluate, and review progress of technology initiatives?**
- **To what extent is effective professional development provided?**
- **To what extent are student/curricular needs being fulfilled by identified media and technology resources?**

These reflective questions were found at
http://www.ncwiseowl.org/Impact/implement.htm#ongoing

Needs Assessment Survey and Findings – Appendix H

Name _____
Grade Level _____
Years of teaching experience _____
Number of students in my class _____

Technology hardware includes:
to:

1. **Computers**
2. **SmartBoard**
3. **Document camera**
4. **LCD projector**
5. **Qwizdom/Senteo**
6. **Palms**

Software includes but is not limited

1. **Microsoft Office (Word, Excel, PowerPoint, Publisher)**
2. **Video Streaming**
3. **Internet Explorer**
4. **KidPix, Google Earth, Education City**
5. **Math Facts in a Flash, Aha Math**
6. **Geoskills**

Do not include Accelerated Reader

A1. Computer Skills – Basic Use

Rate each statement 1-5 based on the following scale:
1 – I have never used this.
2 – I need more training just to learn the basics.
3 – I need to improve my skills or learn more features.
4 – I need little additional help or additional training.
5 – I am good enough to teach this to others.

_____ 1. Word Processing (Microsoft Word)
_____ 2. Internet, email, and World Wide Web
_____ 3. Spreadsheet (Excel)
_____ 4. Research technologies (OPAC – card catalog, online encyclopedias)
_____ 5. PowerPoint
_____ 6. Video Streaming
_____ 7. Education City
_____ 8. Kidpix
_____ 9. Google Earth
_____ 10. Math Facts in a Flash
_____ 11. Aha Math
_____ 12. Geoskills

A2. Computer Skills - Importance

Rate each statement 1-5 based on the following scale:

1 – This is completely unneeded.
2 – Rarely helpful. I can do my job just fine without it.
3 – On occasion, this is important.
4 – This makes my job easier and me much more effective.
5 – I would not be able to effectively do my job without this.

_____ 1. Word Processing (Microsoft Word)
_____ 2. Internet, email, and World Wide Web
_____ 3. Spreadsheet (Excel)
_____ 4. Research technologies (OPAC – card catalog, online encyclopedias)
_____ 5. PowerPoint
_____ 6. Video Streaming
_____ 7. Education City
_____ 8. Kidpix
_____ 9. Google Earth
_____ 10. Math Facts in a Flash
_____ 11. Aha Math
_____ 12. Geoskills

A3. Computer Skills - Frequency

Rate each statement 1-5 based on the following scale:
1 – very rarely or never
2 – at least once a year
3 – at least once a month
4 – at least once a week
5 – at least once a day

_____ 1. Word Processing (Microsoft Word)
_____ 2. Internet, email, and World Wide Web
_____ 3. Spreadsheet (Excel)
_____ 4. Research technologies (OPAC – card catalog, online encyclopedias)
_____ 5. PowerPoint
_____ 6. Video Streaming
_____ 7. Education City
_____ 8. Kidpix
_____ 9. Google Earth
_____ 10. Math Facts in a Flash
_____ 11. Aha Math
_____ 12. Geoskills

B. Standards

Rate each statement 1-5 based on the following scale:
1 – Strongly Disagree
2 – Disagree
3 – Neutral
4 – Agree
5 – Strongly Agree

____1. I know what the NCSCOS Information Skills objectives are that I am required to teach for my grade level.
____ 2. I feel I have been adequately trained on the NCSCOS Information Skills objectives.
____ 3. I currently teach the NCSCOS Information Skills objectives to my students (whether as a separate subject or integrated with other subjects).
____ 4. I facilitate technology-enhanced experiences that address content standards and student technology standards.

C. Environment

Rate each statement 1-5 based on the following scale:
1 – very rarely or never
2 – at least once a year
3 – at least once a month
4 – at least once a week
5 – at least once a day

____ 1. On average, how often do you use the computers in your classroom for other reasons than AR?
____ 2. On average, how often does your class go to the computer lab or use the mobile laptop labs?
____ 3. On average, how often do you teach in the computer lab or with the mobile laptop labs? (include only lessons taught – do not include times you are in the lab monitoring your students completing self paced activities – i.e. STAR tests, Education City, etc.)

D. Support

Rate each statement 1-4 based on the following scale:
1 – would not use
2 – unimportant
3 – important
4 – very important

____ 1. School based technology personnel
____ 2. Time to observe other teachers using technology
____ 3. Technology conferences

____ 4. Onsite technology workshops
____ 5. Stipend for staff development time (when trainings are after school)
____ 6. College credit
____ 7. Video training tapes or online training
____ 8. Staffed technology labs open during non-school hours
____ 9. Release time for exploring

E. Professional Development/Motivation

Rate each statement 1-5 based on the following scale:
1 – Strongly Disagree
2 – Disagree
3 – Neutral
4 – Agree
5 – Strongly Agree

____ 1. I feel I have been adequately trained on what the information skills objectives and technology standards are for students.
____ 2. I feel I have been adequately trained on what the technology standards are for teachers.
____ 3. I feel I have been adequately trained on how to teach the information skills objectives to my students.

4. I feel I have been adequately trained on how to use the following hardware: (Rank 1-5 based on the above scale)

____ Computers ____ Laptops ____ Palms
____ SmartBoard ____ Document Camera ____ LCD Projector

5. I feel I have been adequately trained on how to use the following software: (Rank 1-5 based on the above scale)

____ Microsoft Word ____ Microsoft Excel ____ Internet Explorer
____ Microsoft Publisher ____ Microsoft PowerPoint ____ GroupWise

____ Video Streaming **____ Education City** **____ Aha Math**
____ Kidpix **____ Google Earth** **____ Geoskills**

_____ 6. I enjoy using technology to teach the NCSCOS.
_____ 7. I feel confident in my abilities to use the technology.
_____ 8. I feel confident in my abilities to teach students to use technology.

F. Miscellaneous

1. Other than AR, what do you use your student computers for? Check all that apply.

____ Internet **____ Education City** **____ Other (Please list)**
____ Microsoft Word **____ Google Earth**
____ Microsoft Excel **____ KidPix**
____ Microsoft PowerPoint **____ Microsoft Publisher**

2. On average, how often do you have help (another teacher/assistant) when teaching in the computer lab or with the mobile laptop labs?

Always Frequently Rarely Never

3. I would use my classroom computers or the computer labs more often if: Check all that apply.

____ I had more training.
____ I had more time.
____ I had a better understanding of the technology.
____ I had a better understanding of the technology standards and information skills objectives.
____ I had assistance teaching the lesson.
____ Administration provided incentives for using more technology.
____ I had a classroom management plan that allowed to me to incorporate the 5 classroom computers more easily into daily instruction.
____ I had more access to the computer lab or mobile laptop labs.
____ I had more ideas on how this would improve instruction.

____ I had networking access to school information and school software from home.

G. Open Response

4. What is technology to you?

5. Do you feel that you have adequate support from the computer resource teacher?

6. Do you feel that you have adequate support from the technology facilitator?

7. Please write any other comments or ideas you have in the space below.

Findings

Computer Skills							Percent				
Basic Use	1	2	3	4	5		1	2	3	4	5
Word	0	0	1	4	15	20	0.00	0.00	0.05	0.20	0.75
Internet	0	0	0	6	13	19	0.00	0.00	0.00	0.32	0.68
Spreadsheet	0	0	11	4	3	18	0.00	0.00	0.61	0.22	0.17
Research	1	0	8	6	4	19	0.05	0.00	0.42	0.32	0.21
PowerPoint	0	0	5	9	5	19	0.00	0.00	0.26	0.47	0.26
Video Streaming	0	1	4	7	7	19	0.00	0.05	0.21	0.37	0.37
Education City	1	2	5	9	2	19	0.05	0.11	0.26	0.47	0.11
Kidpix	7	2	6	1	3	19	0.37	0.11	0.32	0.05	0.16
Google Earth	8	2	4	4	1	19	0.42	0.11	0.21	0.21	0.05
Math Facts	12	1	4	1	1	19	0.63	0.05	0.21	0.05	0.05
Aha Math	10	2	3	2	2	19	0.53	0.11	0.16	0.11	0.11
Geoskills	11	2	3	3	0	19	0.58	0.11	0.16	0.16	0.00

Computer Skills								Percent					
Importance	DK	1	2	3	4	5		1	2	3	4	5	Don't Know
Word	0	0	0	0	3	17	20	0.00	0.00	0.00	0.15	0.85	0.00
Internet	0	0	0	0	4	16	20	0.00	0.00	0.00	0.20	0.80	0.00
Spreadsheet	0	0	2	9	6	3	20	0.00	0.10	0.45	0.30	0.15	0.00
Research	1	0	6	5	5	2	19	0.00	0.32	0.26	0.26	0.11	0.05
PowerPoint	1	0	2	13	4	1	21	0.00	0.10	0.62	0.19	0.05	0.05
Video Streaming	0	0	0	2	17	1	20	0.00	0.00	0.10	0.85	0.05	0.00
Education City	4	2	1	8	5	0	20	0.10	0.05	0.40	0.25	0.00	0.20
Kidpix	1	3	2	8	5	1	20	0.15	0.10	0.40	0.25	0.05	0.05
Google Earth	2	5	3	9	1	0	20	0.25	0.15	0.45	0.05	0.00	0.10
Math Facts	6	4	1	6	3	0	20	0.20	0.05	0.30	0.15	0.00	0.30
Aha Math	4	4	2	6	4	0	20	0.20	0.10	0.30	0.20	0.00	0.20
Geoskills	3	4	5	6	2	0	20	0.20	0.25	0.30	0.10	0.00	0.15

Computer Skills								Percent					
Frequency	DK	1	2	3	4	5		1	2	3	4	5	Don't Know
Word	0	0	0	0	3	15	18	0.00	0.00	0.00	0.17	0.83	0.00
Internet	0	0	0	0	0	18	18	0.00	0.00	0.00	0.00	1.00	0.00
Spreadsheet	0	1	3	8	5	2	19	0.05	0.16	0.42	0.26	0.11	0.00
Research	0	4	3	8	3	0	18	0.22	0.17	0.44	0.17	0.00	0.00
PowerPoint	0	4	5	7	2	0	18	0.22	0.28	0.39	0.11	0.00	0.00
Video Streaming	0	0	0	6	11	1	18	0.00	0.00	0.33	0.61	0.06	0.00
Education City	3	6	1	4	2	1	17	0.35	0.06	0.24	0.12	0.06	0.18
Kidpix	2	4	4	4	2	1	17	0.24	0.24	0.24	0.12	0.06	0.12
Google Earth	1	10	3	4	0	0	18	0.56	0.17	0.22	0.00	0.00	0.06
Math Facts	3	11	1	1	2	0	18	0.61	0.06	0.06	0.11	0.00	0.17
Aha Math	3	9	0	2	3	1	18	0.50	0.00	0.11	0.17	0.06	0.17
Geoskills	1	12	3	2	0	0	18	0.67	0.17	0.11	0.00	0.00	0.06

Standard								Percent					
	DK	1	2	3	4	5		1	2	3	4	5	Don't Know
1	0	1	3	2	10	3	19	0.05	0.16	0.11	0.53	0.16	0.00
2	0	2	10	3	4	1	20	0.10	0.50	0.15	0.20	0.05	0.00
3	0	0	2	3	12	1	18	0.00	0.11	0.17	0.67	0.06	0.00
4	0	1	0	3	11	4	19	0.05	0.00	0.16	0.58	0.21	0.00

Environment								Percent					
	DK	1	2	3	4	5		1	2	3	4	5	Don't Know
1	0	0	0	2	11	6	19	0.00	0.00	0.11	0.58	0.32	0.00
2	0	1	2	10	3	2	18	0.06	0.11	0.56	0.17	0.11	0.00
3	0	2	5	10	2	0	19	0.11	0.26	0.53	0.11	0.00	0.00

Support								Percent					
	DK	1	2	3	4			1	2	3	4	5	Don't Know
1	0	0	0	7	12		19	0.00	0.00	0.37	0.63	0.00	0.00
2	0	0	0	13	5		18	0.00	0.00	0.72	0.28	0.00	0.00
3	0	0	3	15	3		21	0.00	0.14	0.71	0.14	0.00	0.00
4	0	0	0	8	12		20	0.00	0.00	0.40	0.60	0.00	0.00
5	0	0	0	2	16		18	0.00	0.00	0.11	0.89	0.00	0.00
6	0	0	0	8	10		18	0.00	0.00	0.44	0.56	0.00	0.00
7	1	4	2	7	5		19	0.21	0.11	0.37	0.26	0.00	0.05
8	0	4	6	7	2		19	0.21	0.32	0.37	0.11	0.00	0.00
9	0	0	2	7	10		19	0.00	0.11	0.37	0.53	0.00	0.00

Professional Development								Percent					
	DK	1	2	3	4	5		1	2	3	4	5	Don't Know
1	0	1	6	7	4	1	19	0.05	0.32	0.37	0.21	0.05	0.00
2	0	1	10	4	4	0	19	0.05	0.53	0.21	0.21	0.00	0.00
3	0	1	7	3	6	2	19	0.05	0.37	0.16	0.32	0.11	0.00

Training - Hardware								Percent					
	DK	1	2	3	4	5		1	2	3	4	5	Don't Know
Computers	0	0	0	2	8	8	18	0.00	0.00	0.11	0.44	0.44	0.00
SmartBoard	0	0	2	4	8	4	18	0.00	0.11	0.22	0.44	0.22	0.00
Laptops	0	0	1	3	9	5	18	0.00	0.06	0.17	0.50	0.28	0.00
Document Camera	0	1	1	5	7	3	17	0.06	0.06	0.29	0.41	0.18	0.00
Palms	1	1	5	2	8	2	19	0.05	0.26	0.11	0.42	0.11	0.05
LCD Projector	0	1	2	7	6	1	17	0.06	0.12	0.41	0.35	0.06	0.00

Training - Software								Percent					
	DK	1	2	3	4	5		1	2	3	4	5	Don't Know
Word	0	0	0	3	7	8	18	0.00	0.00	0.17	0.39	0.44	0.00
Publisher	0	1	5	6	3	3	18	0.06	0.28	0.33	0.17	0.17	0.00
Video Streaming	1	0	2	3	6	6	18	0.00	0.11	0.17	0.33	0.33	0.06
Kidpix	0	1	4	5	6	2	18	0.06	0.22	0.28	0.33	0.11	0.00
Excel	0	1	3	9	3	2	18	0.06	0.17	0.50	0.17	0.11	0.00
PowerPoint	0	0	1	5	9	3	18	0.00	0.06	0.28	0.50	0.17	0.00
Education City	1	4	5	4	3	1	18	0.22	0.28	0.22	0.17	0.06	0.06
Google Earth	1	7	3	7	0	0	18	0.39	0.17	0.39	0.00	0.00	0.06
Internet Explorer	0	0	1	3	9	6	19	0.00	0.05	0.16	0.47	0.32	0.00
Groupwise	1	1	1	4	6	6	19	0.05	0.05	0.21	0.32	0.32	0.05
Aha Math	0	7	3	3	2	2	17	0.41	0.18	0.18	0.12	0.12	0.00
Geoskills	0	7	6	3	0	2	18	0.39	0.33	0.17	0.00	0.11	0.00

6	0	1	1	2	4	10	18	0.06	0.06	0.11	0.22	0.56	0.00
7	0	0	1	4	8	5	18	0.00	0.06	0.22	0.44	0.28	0.00
8	0	0	3	3	9	2	17	0.00	0.18	0.18	0.53	0.12	0.00

Miscellaneous		
Internet Explorer	18	0.95
Word	18	0.95
Excel	2	0.11
PowerPoint	15	0.79
Education City	8	0.42
Google Earth	2	0.11
Kidpix	11	0.58
Publisher	8	0.42
Aha	2	0.11
First In Math	1	0.05
Trudy	1	0.05
Carnival	1	0.05
Type	1	0.05
Other Math	1	0.05
I save a tree	1	0.05
Starfall	2	0.11
Legos	1	0.05

Preferences		
Training	7	0.37
Time	18	0.95
Technology	6	0.32
Technology Standards	6	0.32
Assistance	13	0.68
Incentives	7	0.37
Class Management	10	0.53
Access	8	0.42
Ideas	4	0.21
Home	11	0.58

Help		
Always	0	0.00
Frequently	8	0.42
Rarely	8	0.42
Never	3	0.16

Budget – Appendix I

Budget Category	2007-2008	2008-2009	2009-2010	2010-2011	Totals:
Salaries	84,500	84,500	84,500	84,500	338,000
Materials & Supplies	10,000	10,000	10,000	10,000	40,000
Equipment	261,323.48	1,000	1,000	1,000	264,323.48
Optional (incentives)	20,000	20,000	20,000	20,000	80,000
Total	375,823.48	115,500	115,500	115,500	722,323.48

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