

## **Introduction, Prior Planning, and Local Commitment**

Technology Enhancing the Achievement of Middle School Students (TEAMS<sup>2</sup>) will provide the technology, training, and support needed for effective instruction, enabling teachers to enhance student learning and performance through the use of multimedia tools, focusing on math achievement and interdisciplinary units. The project will expand the existing eMINTS philosophy through the district addressing specific needs of middle school students and teachers while building upon the prior success of the established program at the fourth and fifth grade level.

TEAMS<sup>2</sup> will enrich the education of Chillicothe students and thereby make a significant impact upon the community. Chillicothe's population is approximately 9,000; however, as the business and energy hub of Northern Missouri, the city serves a trade area population of over 65,000. Chillicothe is located at the crossroads of U.S. Highways 65 and 36, less than 40 minutes from Interstate 35 and an hour from Interstates 70, 29 and 435. Chillicothe has a newly developed industrial park and a total of 42 industries including 21 manufacturing establishments, 2 glove factories, 2 saw mills, tool and die, auto parts, fabrics, graphic arts, communications, and others.

Chillicothe residents regard education as a top priority. The Chillicothe R-II School District, recognized as a leader in innovative and progressive programs, has earned "A+ School" status by the State of Missouri. The district consists of four elementary schools, a middle school, a high school, a vocational school and a science learning center serving an enrollment population of 1971 students.

Chillicothe School District is the largest of three public schools in Livingston County absorbing students into the high school from two K-8 schools, one public and one parochial. The K-12 enrollment of 1971 students consists of 0.5% Asian, 2.1% African American, 0.3% Hispanic, and 97% Caucasian students reflecting the cultural makeup of the community. Livingston County has approximately the same percent of high school graduates as Missouri, while 8.5% fewer county residents have college diplomas compared to the state indicating an undereducated population of which 12.7% live below the poverty level. The district enrolls 39.8% of its students in the free and reduced lunch program (FRLP) compared to a 40.7% state average. However, FRLP percentages for the target population for this project, students in grades six through eight, exceeds the state average with 41.9%.

The district has suffered financial concerns being listed as the second most financially stressed district in Missouri in 2001. After a one year freeze on salaries and many financial cuts in programs, personnel and expenditures, the district's financial status has shown improvement. Results of the financial crisis included the loss of an elementary computer lab teacher, and personnel and the teaming concept at the Middle School. For the 2004 school year, the Chillicothe School District shows an assessed evaluation of 110.24 million, slightly increased over 2003 and an average pupil expenditure of \$6880.97 approximately \$500 less than the state average.

The first year of TEAMS<sup>2</sup> specifically targets 460 sixth through eighth grade students, .7% Asian, 2% Black, and 97.3% white and includes special education(12%), gifted (8%), and at-risk students(12%). The primary target of teachers will be the five middle school math teachers committing to the intense 2 year eMINTS professional development and team leadership roles, then other middle school teachers as they integrate the technology and interdisciplinary units into their curriculum. Other teachers receiving additional technology and training will be one former eMINTS teacher completing the second year of PD4ETS training, two replacement eMINTS teachers completing their second year of training and twelve other teachers involved in

eMINTS4ALL, three in Middle School and 3 in each of the 3 elementary buildings, 4 administrators, 17 special education teachers, and 2 technology directors.

The middle school principal will be a key member of the project overseeing the entire project and the major implementation at the middle school. He will assist eMINTS teachers in working with their teams, evaluate all instructors on the six NETS for Teachers as a part of their performance evaluation, and facilitate implementation of the project with scheduling and meeting the needs of the project as they arise. The middle school principal, as leader of the ITSE Leadership Team, will implement needed changes in the project as a result of ongoing formative assessments of professional development, instruction, and technology integration. Other elementary administrators will oversee the professional development components of the grant and the installation, maintenance, and use of equipment in their buildings. These duties will permanently become a part of the administrative responsibilities ensuring success of the project through the two year grant period and beyond.

The major implementation strategies address professional development, curriculum and instruction, continuous monitoring of progress, and change based on evaluation and assessment of the project. Professional development will be a key component of the project. Expected outcomes of the project are to improve math achievement, student and teacher technology literacy, technology integration, and student, teacher, and community access to technology.

Prior planning has led to the effective development of this project. Chillicothe school district administrators and faculty have long been aware of the benefits that instructional technology can afford their students and teachers. The district has had a technology plan and committee in place and improving instruction for twenty years, through established goals, data collection, and action plans. A member of the technology committee and former eMINTS teacher saw that the eMINTS program was going to be expanded to include middle schools for the 2005-2006 school year and brought this information to the committee. The committee chair, also the middle school principal, thought the program would facilitate the technology goals and wondered if it could be directly linked to math instruction as he and middle school math teachers had been working to improve this area of concern.

After MAP scores were reported for 2003-2004 and math was noted as an area of concern, the principal met with math teachers and they brainstormed for possible solutions. Math teachers noticed specific areas that were deficient and created and shared strategies with core teachers to use in all classes. It was decided that a pullout program of concentrated math instruction would be used. Students were tested and those not achieving the predetermined goal were pulled from their exploratory classes for three weeks to complete additional instruction in basic math and test taking skills. The success of this intervention will be evaluated with spring 2005 MAP scores.

Research was found to document the effectiveness of technology and the eMINTS instructional strategies in math achievement. In *The Best of Learning & Leading with Technology on Mathematics*, Baugh and Raymond (2004) state that when students engage in mathematical problem solving, particularly when using technology as a tool for solving problems, they become mathematically empowered and gain a confidence that students may never achieve in a traditional mathematics classroom. Kaput (2002) agrees that the benefits of technology in math education include supporting and enhancing rich problem-solving environments, decreased time needed for skill development, more time on conceptual understanding, graphical advantage of computing utilities, and deeper student understanding.

The Missouri Council of Teachers of Mathematics, March 2005, *Bulletin* states that "Using the tools of technology to work in interesting problem contexts can facilitate

students' achievement of a variety of higher-order learning outcomes, such as reflection, reasoning, problem posing, problem solving, and decision making." The council continues to recommend that "Every school mathematics program should provide students and teachers with access to tools of instructional technology" and "appropriate professional development" in its use.

With research documenting the direct benefits of technology integration in math achievement, the technology committee felt that the eMINTS middle school project would be an excellent opportunity to meet district goals and objectives in the technology plan as well as MSIP Standards and CSIP goals and objectives. The principal met with math teachers to determine their perspective and commitment toward such a project. The former eMINTS teacher, now in PD4ETS training, the middle school principal, and a middle school math teacher attended an informational meeting about the grant. Following this meeting, they met with the other math teachers and decided they wanted to develop a plan to expand eMINTS into the middle school focusing on math instruction. The plan was discussed with other administrators and consent was given to pursue its development and the writing of this grant.

As the plan began to take shape, the principal brought the topic before the middle school faculty for input. It was noted that middle school teaming, which had been cut during the district financial crisis, would facilitate and enhance the project and the principal committed to trying to reestablish the teaming concept for the 2005-2006 school year. A blog site was established for communication of all key stakeholders in the project and a team of teachers and administrators began to write the grant. The project was named *Technology Enhancing the Achievement of Middle School Students (TEAMS<sup>2</sup>)* indicating the support of the project by middle school teams and keeping math the targeted curriculum but allowing the benefits of the technology and instructional strategies to filter through all curricula.

Surveys were administered to assess needs in addition to those in math indicated by MAP scores. Results of these surveys will be discussed in the needs section. The eMINTS web site was studied and eMINTS officials were contacted to determine equipment and professional requirements. The overall goal and objectives were determined by the needs and written into the plan. After the goal and objectives were developed, the team met with Adam Bickford, OSEDA, to discuss assessment and evaluation of the project. It was agreed that upon approval of the project, he would be contracted as external evaluator. A draft of the plan was read by a DESE official, Bickford, administrators, and teachers. A meeting was conducted to collaborate on revisions and the final draft was written.

Involvement in the development of the TEAMS<sup>2</sup> project is only one indication of local commitment. The district is committing more than \$65,000 each year of implementation to supplement professional development and equipment elements of the project, to provide lab access for students, teachers, and community after school hours, and to expand technology into the high school. The district also commits to maintenance and replacement of equipment following the grant period, continued subscription to eMINTS modules, for updated and continued funding of professional development to ensure that effective use of the equipment continues after the grant period ends. In order to continue the technology enhancement into the high school, the district commits \$20,000 a year for the next 4 years, matching a local foundation, to purchase a classroom set of laptops, SMART Board, and projector for each curricular area in the high school. These funds do not supplant but supplement the district's technology budget.

Middle School teachers are committed to as demonstrated through involvement in various programs of professional development. CMS math teachers have been

leaders in improvement programs in the state for many years. They have been involved in Math Attack, Math Academy, PRISM (Promoting Reasoning and Inquiry in Science and Mathematics), of which the year two focus was technology, and have been leaders in MAP development. Many have advanced degrees in math and technology. The middle school has adopted Connected Math, an inquiry based curriculum. Math teachers realize the opportunity that technology and inquiry based learning affords their students in math achievement and are dedicated to the eMINTS professional development. The commitment of these teachers will ensure the success of TEAMS<sup>2</sup>.

The district demonstrates a commitment to TEAMS<sup>2</sup> and technology through a subscription to Chalkwaves, an instructional technology service, involvement with eMINTS since 1998, and district technology improvements. In 1999 the district added 2 eMINTS classrooms and an additional classroom the following year at district cost. In 2001-2002 administrators participated in the Technology Leadership Academy and a replacement eMINTS teacher was sent to Summer Sampler. In 2003-2004, the Professional Development Committee (PDC) paid \$10,000 for district technology training as a part of the committee focus on technology. The PDC will continue a technology focus as long as the need is indicated. In the same year, the district also began purchasing Dells on lease agreement for computer labs and computers for teachers. \$20,000 was allocated to purchase SMART Boards and projectors for all buildings in an effort to place equitable resources for tech integration in all buildings. 2003 was the beginning of the four teacher, three year commitment to the program supporting professional development in inquiry—based instruction (PRISM) and the MPER Fellows Program was implemented in the eMINTS classroom.

Local commitment to expanding access to technology and training continued this year, 2004-2005, when a former eMINTS teacher began PD4ETS training and with district paid stipend for replacement training for 2 eMINTS replacement teachers. The district provided laptops for those teachers. The district reallocated \$50,000 to the technology budget and began installing wireless access in all district buildings. In 2004, Chillicothe district reported 24.62% of district classrooms were not internet connected compared to 8% statewide. The district technology committee has set a goal of having all class rooms internet accessible by the beginning of the 2005-2006 school year. The district so values the use of instructional technology that we choose to make it an integral part of instruction, not an optional component. It is expected that all teachers use technology and acquire the necessary professional development. TEAMS<sup>2</sup> will model this integration and implementation at the middle school, then expand the model district wide.

Technology improvements have been made as a wireless laptop, portable cart, and networked color laser printer for the SMART Board and projector were purchased for each building. The PD4ETS trainer trained representatives from all district buildings using eMINTS modules and then the representatives trained teachers in respective buildings. Stipends were paid by the district. Funding was allocated for 25 district teachers to create WebPages and a new position, Elementary Technology Instructor, was added to provide bi-weekly instruction for students in grades Kindergarten through 5<sup>th</sup> grade. This position was the first stage of replacing two full time lab instructors that were cut during the district's financial crisis. The district continued year two of the Dell lease program. A \$7,643 grant was received for Assistive Technology Training in grades K-12 with training funded by the district and the Middle School received a \$35,000 Hewlett Packard Technology for Teachers grant that supplied 5 teachers with HP Notebooks, projectors and intensive technology professional development.

Local commitment continues with the strong leadership of the project's key administrator, the middle school principal. His belief in the importance of technology in

effective instruction is demonstrated through chairing the district technology committee and two year's involvement in the Technology Leadership for Administrators program. He also chairs the Professional Development Committee and has influenced its focus on technology.

### **Description of Needs and Strengths**

TEAMS<sup>2</sup> will address the needs of low math scores and lack of technology integration and equipment in the middle school while building upon the strengths of a progressive faculty dedicated to inquiry based learning and a supportive administration. To assess technology equipment needs, building technology coordinators took a count of computers, projectors, scanners, and digital cameras in each building. It was found that the middle school computer to student ratio was 10 to 1 indicating need. Approximately 1/3 of the sixth grade students have been a part of the eMINTS program at their previous building. Then when they arrive at the middle school the learned skills cannot be further developed due to the lack of equipment and technology training of teachers. This project will address that need and the district will continue the support by matching funds from a local foundation that will add the laptop labs, SMART Boards, and projectors to the high school.

As a means of formative internal assessment, technology needs were assessed with the ProfilerPRO survey for Technology Literate Teachers. This survey is a self assessment of technology proficiency according to the National Education Technology Standards (NETS). The district scored an average of 2.34 out of 5 possible points, with the lower scores on assessment and evaluation (2.2) and higher scores (2.73) on operations and concepts. A veteran district eMINTS teacher scored 4.75 while the two first year eMINTS teachers scored an average of 3.47, significantly above the district average. These scores will be used as a pre-assessment with a project objective for the district to improve from 2.34 to 3.25 by the end of the first year and to 4.0 by the end of the second year of the project when it encompasses the entire faculty.

A middle school survey of technology indicated a student to computer ratio of 10 to 1. This ratio is significantly larger than that of the district at 3.02 students per computer and shows a need for more technology at the middle school. The survey indicated that 80% of these students have internet accessible computers at home and therefore have a greater access to technology at home than they do at school. This available technology at home would enhance TEAMS<sup>2</sup> as students could use what they learn at school at home and parents would have online access to information from school while the student to computer ratio demonstrates need.

In the same survey, 44% of the students reported the need for additional help with their math skills. This project will address that need as it trains math teachers in effective use of technology through inquiry based, constructivist instructional strategies.

In a district wide TAGLIT survey, teachers commented on various problems that will be addressed through this project. Teachers felt that if more training was available, they would be better able to integrate technology and meet the needs of their students. Teachers commented that the primary technology education middle school students were receiving was keyboarding and that there was an acute need for computers and integration with curriculum in the regular classroom.

The eMINTS program has been connected to academic gains of third and fourth grade students on free and reduced lunches (FRLP) by Missouri's Office of Social and Economic Data Analysis (OSED) stating that these children in eMINTS classrooms achieve at higher levels on average than children in the FRLP not in eMINTS

classrooms. The targeted need to improve low math scores is concentrated in the middle school's population in the FRLP. TEAMS<sup>2</sup> will improve achievement in all academic subjects focusing on math as a target area due to low 2004 scores of 53.2% of students in step 1 and progressing and only 9.4% in the advanced and proficient categories. These low scores were particularly evident in the lower economic population as 73.1% of students on free and reduced lunches scored in the bottom two levels of the MAP and 7.7% in the top two levels compared to 41.4% of the rest of the population in the bottom two and 10.3% in the top two.

Chillicothe School District has many elements currently in place that will ensure the success of TEAMS<sup>2</sup>. The district has a well developed technology plan in place with a current emphasis on increasing computer access for teachers and improving infrastructure. This year \$125,000 was spent for those needs. Last year the Professional Development Committee budgeted \$15,000 and this year another \$10,000 for professional development specifically in technology.

Chillicothe Middle School developed and implemented a building wide project of Total Quality Management to improve academics, attendance, and behavior. All teachers and students were trained in continuous monitoring techniques, goal setting, and writing actions plans in the three targeted areas. Improvement was evident in all three areas as discipline referrals decreased by 48%, attendance improved by .5%, an average of 2.25 students per day, and academic achievement increased by 18% according to monitored grade point averages. Many of the trained teachers are still a part of the current faculty and this technology project will benefit from prior experience as it uses some of the same continuous monitoring aspects in the implementation and evaluation.

Midproject evaluation of the Hewlett Packard Technology for Teachers project for the current year has shown a 12% increase in technology literacy so far and will be reevaluated at the end of the project. Professional development in technology for the five participating teachers completed this year will benefit the proposed TEAMS<sup>2</sup> project. This team of teachers plans to submit a proposal to continue through the second year. If accepted, additional technology and professional development through ISTE would enhance the TEAMS<sup>2</sup> project.

As recommended in the Correlates of Effective Schools Research, students need to work in schools where there are high expectations for success for all students, where there is an authentic partnership between school and home, and where student progress is frequently monitored. Needs have been found in these areas where CMS at-risk students are achieving at lower levels than the rest of the student population, parents feel disconnected with the middle school when students enter departmentalized instruction and are no longer getting weekly newsletters from a contained classroom teacher or in the high school where the School Information System Parent link is operational. Although grade reports are sent home every three weeks, many parents are not seeing them or still do not feel adequately informed of their student's progress. The Correlates recommend the use of technology allowing teachers to better evaluate students' progress and students to better monitor their own learning and, when necessary adjust their own behavior. In that recommendation, our project mirrors the correlates with high expectations for all students including at-risk, FRLP students and increasing parent communication.

The Correlates also recommend the moving of assessment away from standardized norm-referenced, pencil paper tests to performance based products of student work such as performance and portfolios, both of which will be used in the inquiry based instruction.

TEAMS<sup>2</sup> supports the Middle School Vision as it encourages a partnership of learning among home, school and community and provides a variety of instructional approaches which encourage higher order thinking skills and application of knowledge. The overall goal of TEAMS<sup>2</sup> is to provide the technology, training, and support needed for effective instruction, enabling teachers to enhance student learning and performance through the use of multimedia tools, focusing on math achievement and interdisciplinary units.

Further research supports the project goal of providing the technology and training needed for effective instruction enabling teachers to enhance student learning and performance through the use of multimedia tools, focusing on math achievement and interdisciplinary units. Ongoing professional development is necessary to help teachers learn not only how to use new technology but also how to provide meaningful instruction and activities using technology in the classroom. "Teachers must be offered training in using computers," notes Sulla (1999), "but their training must go beyond that to the instructional strategies needed to infuse technological skills into the learning process." In successful projects, teachers are provided with ongoing professional development on practical applications of technology. Matthew Oliver, superintendent in rural Maine, relates that the bottom third of a seventh-grade class improved their GPA by 20.18% after the infusion of wireless networking made schoolwork more individualized and engaging for these students. Lengel (2005) says that the promise of technology is its ability to allow a variety of ways of learning to take place in the same classroom.

Research also supports integrating technology and interdisciplinary units. Teachers state that appropriately integrating technology into instruction has the power to improve teaching and strengthen learning. Interdisciplinary units integrating technology facilitate the sharing of knowledge using multimedia encyclopedias, online periodicals, electronic books, and the World Wide Web. It offers stimulating ways for learners to access, evaluate, and share information with other learners. Gilster(2003) Interdisciplinary/cross-curricular teaching can increase students' motivation for learning and their level of engagement. In contrast to learning skills in isolation, when students participate in interdisciplinary experiences they see the value of what they are learning and become more actively engaged (Resnick, *Technology-based Interdisciplinary Planning and Instruction*, 2001).

Interdisciplinary units integrating technology further the development of students' higher-order thinking skills and enable teachers to be more creative, enthusiastic and collegial; they use time more effectively and have developed personal and professional pride in their teaching." (Heidi Hayes Jacobs, Joyce Hannah, William Manfredonia, John Percivalle, and Judith C. Gilbert). TEAMS<sup>2</sup> middle school teachers will develop and implement two interdisciplinary units integrating technology throughout the curriculum with the assistance of the math eMINTS teachers and expanded in year two with three interdisciplinary units completed.

TEAMS<sup>2</sup> supports the Chillicothe District Technology plan as it reflects its goals and action plan for implementation. The technology plan and project allows for at least one internet accessible Dell for every teacher and all district labs with Dells no older than three years. The Dell leasing plan ensures that current technology is available to teachers and students. Technology Plan Goal 4 calls for an ongoing technology program that allows every educator to use technology resources to facilitate higher order and complex thinking skills, including problem solving, critical thinking, informed decision making, knowledge construction, and creativity which precisely describes the eMINTS instruction method.

The district technology plan and TEAMS<sup>2</sup> both require specific objectives that will measure the effectiveness of the technology in improving student learning and

administrators will be required to evaluate technology competency of teachers as a part of the regular evaluation process. Administrators will report on the percentage of teachers performing at or above expectation on technology competencies as prescribed by the National Educational Technology Standards for Teachers. In addition to district evaluation, technology literacy and integration will also be evaluated by the eMINTS evaluation team.

A team approach will be used during implementation of the proposed project with the eMINTS teachers completing the extensive professional development and acting as lead teachers on their middle school team to assist with the integration of technology into all classrooms and coordinate the sharing of the classroom labs of laptop computers. Communication will be handled through GroupWise email and the TEAMS<sup>2</sup> blog.

TEAMS<sup>2</sup> will build upon proven success in the Chillicothe district. eMINTS classrooms have proven successful in the Chillicothe District. In 2003, the eMINTS students Map scores were the highest of the six sections. Math eMINTS averaged 641, ranking first, while the other five sections averaged 634 and Social Studies eMINTS averaged 654, again ranking first, while the other five sections averaged 647. In 2004, eMINTS student scores were 2 and 3 points behind, but it is believed these scores were affected by lack of training for the replacement teacher in the eMINTS classroom.

## **Goals and Objectives**

The goal of Technology Enhancing the Achievement of Middle School Students (TEAMS<sup>2</sup>) is to provide the technology, training, and support needed for effective instruction, enabling teachers to enhance student learning and performance through the use of multimedia tools, focusing on math achievement and interdisciplinary units. To meet that goal, the following objectives have been developed for implementation but susceptible to amendments necessitated by continuous monitoring and evaluation.

#1 Student Academic Objective: Student achievement will show improvement by decreasing the step 1 and progressing levels by 10% and increasing the advanced and proficient levels by 10% on the MAP Math test, comparing Spring 2004 and Spring 2005 scores for year 1 and 2005-2006 scores for year 2, by the end of each year of the project.

#2 Student Technology Objective: Student technology literacy will increase 20% by May 2006, as indicated on the ISTE student technology skills assessment taken in September of 2005 for baseline data, and again in May 2006 for final evaluation of the first year and repeated in September 2006 and May 2007 for the second year.

#3 Teacher Technology Literacy Objective: Teacher technology literacy will increase from 2.34 to 3.25 on a scale of 1-5 by the end of the first year and to 4.0 by the end of the second year as indicated on ProfilerPRO technology survey from the pre-assessment taken as a needs assessment March 2005 by a reassessment taken in April 2006 and again in April 2007.

#4 Teacher Technology Curriculum Integration Objective: Technology integration will increase 50% (30% in year one and an additional 20% in year two) comparing teacher logs of technology integration and methods of integration into the curriculum and instruction. Logs from the first quarter of the 2005-2006 school year will be compared to logs from the final quarter of the initial year for project evaluation and repeated first and

final quarter of 2006-2007 school year. Technology integration logs will be monitored continuously to adapt goals and action plans.

Objective #5 is not funded by the grant but a part of the project that will enhance technology efforts school and extend them more effectively to parents and the community.

#5 Access Objective: Student, parent, and community access to technology will be increased by the district funding the staffing of open computer labs from 3:30 to 7:00 two nights a week and rotating through buildings to encourage use by more students and adults. Logs will be kept to evaluate topics covered and usage. Participants will be asked to complete periodic surveys to better address the needs of participants. (See sample survey in appendix.) Logs from September and April of each year will be compared and evaluated for increased usage each year.

### **Major Activities, Implementation Strategies, and Evaluation Plan**

The following implementation activities and responsibilities are outlined in objective action plans and a project outline following the narrative. The first year of this project will serve four buildings and administrators, 66 teachers, 1200 students, and allow the use of computer labs by parents, students, teachers, and community members in the evenings. The instructional focus of this project will address the integration of technology into middle school math curriculum, sixth through eighth grade using eMINTS instructional strategies in an effort to improve low MAP scores from spring of 2004.

The major implementation strategies address professional development, curriculum and instruction, continuous monitoring of progress, and change based on evaluation and assessment of the project. Professional development will be a key component of the project. Five middle school math teachers will complete eMINTS training of 100 hours the first year, covering the technology instructional strategies and scope of training. Training evaluation forms will be completed at the end of each session noting strengths and needs in order to facilitate changes necessary for maximum progress.

Math teachers will complete the training on the eMINTS methodology and then apply instructional strategies in their math classes. They will share their experiences and the portable laptop labs with other team teachers and assist them with integrating the eMINTS methodology of technology enhanced, inquiry-based, student-centered lessons in their classrooms. Teams will develop and implement a minimum of two interdisciplinary units, one each semester, using eMINTS instructional strategies. Team meeting agendas will designate a time period each week for discussing technology integration.

Math teachers will practice goal setting, action planning, and continuous monitoring in the areas of technology skills and technology integration. Teachers will self assess and continually monitor their use of these methods and their effectiveness with checklists and journal reflections. Use of the TEAMS<sup>2</sup> blog will facilitate networking of participating teachers by allowing them to learn from each others' experiences and collaborate on solving problems that arise. This continuous monitoring of progress will allow teachers to adapt the project and amend their goals as necessary.

Once teachers have mastered the goal setting, action planning, and continuous monitoring, they will instruct students in the same techniques for math achievement and technology skills. Students will collect data and graph their progress on paper the first semester and then use spreadsheets the second semester. Students will graph and

evaluate their achievement compared to predetermined individual goals. They will email weekly progress reports and samples of their work to parents.

Teachers and students will add samples of work throughout the year to individual portfolios to document their progress in each objective. Portfolios will be electronic all year for teachers and will become electronic during the second semester for students. A third quarter parent teacher conference will allow students to present their portfolios showcasing math achievement and technology skills to their parents in the presence of their teachers.

eMINTS4ALL professional development will be a part of the project as three teachers from each of the four buildings, the middle school and three elementary buildings complete eighty hours of training through the 05-06 and 06-07 school year. Again, teachers will evaluate training sessions in order to make changes necessary for optimal effectiveness. Two teachers already in the eMINTS program will complete the second year of their training and the education technology specialist will complete the second year of PD4ETS training. Beginning the second year of the project and continuing beyond, these three teachers will be enrolled in the eMINTS My eCOACH training to continue their professional development.

The Educational Technology Specialist (ETS), former eMINTS teacher, will assist the technology director with ordering, setting up, and maintaining the equipment, and facilitate the project through writing and distributing a quarterly newsletter for the district and community on the progress of the project. She will coordinate the component of the project allowing community and student use of evening computer labs, assisted by the building technology assistant. She will write and submit required reports and oversee the continuous evaluation of the project.

The ETS has been training teachers through district professional development, much of which has covered the topic of SMART Boards in the classroom instruction. This resulted in teachers using the SMART Boards enough that they wanted a more permanent setup available to them at all times. With funding of this project, fundraisers, district funding, and HP grant funds, all middle school and fourth and fifth grade classrooms will have SMART Boards and projectors. The technology director will order, set up, and maintain the equipment. He will address the network and server needs of the teachers and administrators.

The Educational Technology Specialist will train teachers in web design and web pages will be developed by 25 district teachers in addition to the eMINTS teacher web sites. Web pages will continue through the second year and indefinitely.

The Library Media Specialist will be instrumental in the coordination of the project in two elementary buildings. She will be responsible for scheduling the use of the new equipment and facilitating its use by teachers with assistance and classroom integration methods. She will be one of the elementary eMINTS4ALL teachers receiving 80 hours of training during the two year project, a member of the ISTE Leadership team, and will use the equipment in library classes exposing students and teachers to eMINTS instructional methods.

Four administrators will complete the eMINTS4Administrators training and the technology director and middle school technology assistant will complete the eMINTS4Techs training. Seventeen special education teachers will complete the eMINTS in Special Education training. Teachers attending any of these trainings will implement eMINTS instructional strategies in their classrooms and then lead workshops for all district teachers during scheduled professional development hours.

The middle school principal, educational technology specialist, an eMINTS teacher, the library media specialist, and a non-eMINTS teachers will make up an ISTE leadership team. The team will be responsible for finalizing the grant, completing

additional professional development, and meeting periodically to facilitate the implementation of TEAMS<sup>2</sup> on a school wide basis. Through ISTE, this group will acquire the knowledge and skills needed to achieve the project goals and align other school improvement processes and required mechanisms with the eMINTS instructional model. This team will coordinate involvement, collaboration, and cooperation among key stakeholders during and after the project. ISTE training is only during year one, but the group will continue to facilitate implementation as the project continues with the major responsibility of monitoring and adapting the project as needs require, and keeping communication among key stakeholders effective.

Equipment from year one of TEAMS<sup>2</sup> and other district funds will fully equip all eMINTS classrooms and all eMINTS4ALL classrooms will have full equipment or unlimited access to equipment. All middle school regular education classrooms will be fully equipped with SMART Boards, projectors, computer and access to the portable labs of laptops. Fourth and fifth grade classrooms, regular and special education rooms will be equipped primarily through fundraiser money. The first year will also add a SMART Board, projector, and lab of portable laptops for use by teachers of freshmen students. This equipment is funded through matching district and local foundation funds.

During the second year of the project, the district will fund PD4ETS subscription to continue use of the eMINTS modules and enroll three teachers in eMINTS My eCOACH for continued training. District funds will add a laptop lab and training will expand technology for sophomores and continuation in the Dell lease program will replace computers three years old.

In the 2007-2008 school year, the district will expand technology by providing a laptop lab and teacher training for Juniors. Two middle school eMINTS laptop labs will be replaced through the Dell lease rotation. The 2008-2009 school year will see full district implementation K-12 and add three middle school laptop labs to the Dell lease rotation. The ultimate objective is to immerse the Chillicothe District in technology and training that will enhance academic achievement. All district computers will be a part of the Dell lease program so that no computer is more than three years old and labs will be replaced with Thin Clients enabling teachers and students to work from school or from home.

TEAMS<sup>2</sup> will be overseen jointly by the technology education specialist and the middle school principal. The principal will act as project contact.

## **Dissemination Plan**

TEAMS<sup>2</sup> implementation, progress, and outcomes will be disseminated through school and community newsletters, quarterly updates in the local papers and radio stations and the school web page, via eMINTS teachers' WebPages beginning in January of year one. eMINTS teachers' web pages will show student work and allow communication between school and the global community, including parents. CMS Live, the middle school daily television news program, broadcast to the community, will have a weekly time called Tech Minutes, highlighting the project and technology used by teachers and students. Articles about the project's implementation and outcomes will be submitted to The Transescent, a middle school journal, School and Community, a Missouri Teachers' journal, and Newline for possible publication. Middle School teachers will periodically report project progress to the school board and submit proposals to present the project's implementation and outcomes at the spring middle school conference and the Missouri Council of Math Teacher's conference. In year 2,

students will demonstrate their accomplishments in an exhibit at the MOREnet Technology Conference. The TEAMS<sup>2</sup> project plan will be available upon request as a model for other districts to adapt and adopt for implementation.

## **Evaluation Plan**

Evaluation of TEAMS<sup>2</sup> will continuously assess the strengths and weaknesses of the project and make necessary modifications. A major component of the evaluation will be the official eMINTS evaluation that assesses the effectiveness of technology –based teaching practices, student achievement, school transformation and professional development needs of teachers. Chillicothe R-II district will contract with Adam Bickford, OSEDA to assist in creating assessments and analyzing the data. Data will be gathered through teacher, school administrator and parent interviews, classroom observations, student and teacher surveys, and measurement of student achievement and performance. The district will submit semi-annual checklists documenting eMINTS hardware and software, the professional development program schedule with detailed reports and attendance information.

Bickford will assist the Chillicothe district with developing the necessary tools, oversee the process of evaluation and analyze the collected data. His evaluation will meet the eMINTS requirements, evaluate the objectives of this project, and also evaluate the district wide math curriculum to spot and remedy weaknesses and build on the strengths. Bickford's evaluation will be supplemented by built in formative and summative, ongoing evaluation methods of reflection journals, logs, student and teacher continuous monitoring records, standardized tests, and teacher and student portfolios.

The proposed evaluation activities focus on the district's desire to improve mathematics performance through facilitating the district's development of quarterly mathematics assessments that are aligned to Missouri GLEs. These assessments will be related to the MAP Mathematics test and will be used as a "diagnostic pretest of mathematics performance. Results from the quarterly assessments in grades 3 to 8 will model the MAP scale score in each year of the grant.

As these assessments are being developed, the eMINTS evaluation team will conduct classroom observations of mathematics instruction in each grade to document the sequence of the mathematics curriculum. The eMINTS evaluation team will also conduct focus groups with teachers in Chillicothe schools to understand the district-wide issues surrounding mathematics instruction.

Results from these assessments and the MAP tests will be used to model patterns of student growth over the two-year period of the grant. The statistical model will account for cumulative enrollment in eMINTS classes, the observed instructional practices of classroom teachers, teacher and student technology literacy and integration, and a set of student characteristics determined by the Chillicothe district and the eMINTS evaluation team.

The observed instructional practices of teachers in 3 to 8 will be assessed by a series of 3 classroom visits in each year of the grant. These observations will use the eMINTS Lesson Typology rubric, the eMINTS Technology use rubric and the eMINTS Classroom Climate rubric. Members of the eMINTS evaluation team will instruct district personnel in the use of these rubrics. All observations will be entered into a common database for analysis.

The eMINTS evaluation team will also develop a series of teacher and student surveys to assess the Teacher and Student Technology Literacy Objectives. These surveys will be piloted in the Autumn of 2005 and finalized for administration in the

Winter of 2006. These surveys will be hosted on a district survey for administration twice in each grant year. The eMINTS evaluation team will compile and analyze the results of these surveys.

The eMINTS evaluation team will conduct 2 interviews with, and observations of, all participants in the eMINTS4All, eMINTS4Administrators, and eMINTS in Special Education training. These interviews will focus on issues agreed upon by the Chillicothe district and the eMINTS evaluation team.

In addition to the eMINTS evaluation, the district will conduct annual standardized tests, ongoing project evaluation with teacher and student goal setting, action planning, and monitoring, student portfolios, principal evaluation of instructors and project, evaluations of training sessions, reflection logs, discussion lists and blogs. A blog will be set up by the middle school technology assistant and all elementary and middle school and other district eMINTS teachers will be invited to join. This will allow teachers the opportunity to access the knowledge of the other teachers when they have questions, to share ideas and concerns, and to network throughout the project. The blog will be monitored as a method of evaluating the project and making changes as the need arises.

Expected outcomes of the project are to improve student academic achievement and technology literacy, improve teacher technology literacy and increase teacher technology integration, and increase student, parent, and community access to technology.

## **Budget Explanation**

Once approved, the TEAMS<sup>2</sup> budget, state and district portions, will directly fund nearly \$520,000 over two years to enhance and expand the existing technology and instruction in the Chillicothe School District. The TEAMS<sup>2</sup> budget supplements the existing technology and curriculum budgets with at least as much district funding budgeted for 2005-2006 as in 2004-2005. Five first year eMINTS teachers, 2 second year eMINTS teachers, 12 eMINTS4ALL, 17 special education teachers, 4 administrators, and 2 technology assistants will receive direct eMINTS training. Additionally, 33 teachers will be trained through scheduled district professional development and the leadership of eMINTS math teachers in middle school teams. This will increase academic achievement through improved instruction for 1200 students in grades kindergarten through eighth and supply equipment allowing teachers to effectively integrate instructional best practice into their daily curriculum with adequate technology resources and continuous support.

Integration of technology in the district will expand as TEAMS<sup>2</sup> continues through and beyond the two year grant period. The district commits to ongoing professional development for technology through the Professional Development Committee. If eMINTS teachers are replaced in the eMINTS classrooms they will receive training. eMINTS equipment will be rotated into the Dell leasing program so that no computer is more than three years old. SMART Boards and projectors will be maintained, replaced, and added to equip all classrooms. District and local foundation funds will continue the expansion of technology into the high school with portable labs of laptops, SMART Boards, and projectors to ensure that students trained in the elementary and middle school will have the necessary technology to keep increasing their skills and knowledge. eMINTS subscriptions will be kept current. Continuous monitoring of progress will continue in math classes and expand throughout the curriculum as a means of

evaluating the effectiveness of the added technology and training in student academic achievement.

TEAMS<sup>2</sup> accelerates and extends the district's technology goal of an ongoing technology program that allows every educator to use technology resources to facilitate higher order and complex thinking skills, including problem solving, critical thinking, informed decision making, knowledge construction, and creativity which precisely describes the eMINTS instructional method.

## TEAMS<sup>2</sup> OBJECTIVE ACTION PLANS

<p><b>Objective: #1</b> Student Academic Objective: Student achievement will show improvement by decreasing the step 1 and progressing levels by 10% and increasing the advanced and proficient levels by 10% on the MAP Math test, comparing Spring 2004 and Spring 2005 scores for year 1 and 2005-2006 scores for year 2, by the end of each year of the project.</p>			
<p><b>Improvement Strategies:</b> (Teachers) Implementation of eMINTS methods, integration of technology, increased inquiry-based, student centered lessons, increasing thinking level in lessons, continuous monitoring, goal setting action plans (Students) Goal setting in assignment completion, scores, action plans and continuous monitoring.</p>			
<p><b>Tasks/Action Steps</b> <i>What Will Be Done?</i></p> <ol style="list-style-type: none"> <li>1. Implement eMINTS instructional methods</li> <li>2. Set goals, write action plans, monitor</li> <li>3. Set goals, write action plans, monitor</li> <li>4. Administer diagnostic tests</li> <li>5. Adjust instruction</li> </ol>	<p><b>Responsibilities</b> <i>Who Will Do It?</i></p> <ol style="list-style-type: none"> <li>1. Math teachers</li> <li>2. Math teachers</li> <li>3. All students</li> <li>4. Math teachers</li> <li>5. Math teachers</li> </ol>	<p><b>Resources</b> <i>(Funding/Time/ People/Materials)</i></p> <ol style="list-style-type: none"> <li>1. (Regular contracted time)</li> <li>2. (Regular contracted time)</li> <li>3. Class time</li> <li>4. (Regular contracted time)</li> <li>5. (Regular contracted time)</li> </ol>	<p><b>Timeline</b> <i>By When? (Day/Month)</i></p> <ol style="list-style-type: none"> <li>1. Ongoing</li> <li>2. Ongoing</li> <li>3. Ongoing</li> <li>4. Quarterly</li> <li>5. Ongoing</li> </ol>
<p><b>Implications For Professional Development</b> Teachers will first be trained weekly in eMINTS instructional methods. During trainings sessions and networking they will evaluate diagnostics and adjust instruction. They will share their experience and knowledge with grade level teams during team planning.</p>			
<p><b>Implications For Family Involvement</b> Student progress of goals and achievement will be shared with parents at least every three weeks. Second semester, students will email (secure email program progress reports to parents weekly. Parents will be encouraged to participate in computer labs with students during open lab nights (2 each week).</p>			
<p><b>Evidence Of Success</b> Improved grades monitored continuously, improved Map scores evaluated in Spring, completed assignments monitored continuously</p>			

## TEAMS<sup>2</sup> OBJECTIVE ACTION PLANS

<p><b>Objective:</b>                  #2 Student Technology Objective: Student technology literacy will increase 20% by May 2006, as indicated on the ISTE student technology skills assessment taken in September of 2005 for baseline data, and again in May 2006 for final evaluation of the first year and repeated in September 2006 and May 2007 for the second year.</p>			
<p><b>Improvement Strategies:</b>                  Math classroom instruction, other core classroom instruction, technology class instruction</p>			
<p><b>Tasks/Action Steps</b>  <i>What Will Be Done?</i></p> <p>1. Technology integration in Math classroom                  2. Student practice                  3. Technology integration in core classes                  4. Technology integration in computer lab class</p>	<p><b>Responsibilities</b>  <i>Who Will Do It?</i></p> <p>1. eMINTS teachers                  2. Students                  3. other teachers                  4. Technology teachers</p>	<p><b>Resources</b>  <i>(Funding/Time/ People/Materials)</i></p> <p>1. Regular contract                  2. None                  3. Regular contract                  4. Regular contract</p>	<p><b>Timeline</b>  <i>By When? (Day/Month)</i></p> <p>1. ongoing                  2. ongoing                  3. ongoing                  4. daily for 1 quarter</p>
<p><b>Implications For Professional Development</b>                  Skills and knowledge from teacher professional development will be transferred to other teachers and students.</p>			
<p><b>Implications For Family Involvement</b>                  Students will share knowledge at home and during open labs with parents.</p>			
<p><b>Evidence Of Success</b>                  Increased scores on technology literacy assessments and higher quality classroom work and products.</p>			

TEAMS<sup>2</sup> OBJECTIVE ACTION PLANS

<p><b>Objective:</b>                  #3 Teacher Technology Literacy Objective: Teacher technology literacy will increase from 2.34 to 3.25 on a scale of 1-5 by the end of the first year and to 4.0 by the end of the second year as indicated on ProfilerPRO technology survey from the pre-assessment taken as a needs assessment March 2005 by a reassessment taken in April 2006 and again in April 2007.</p>			
<p><b>Improvement Strategies:</b>                  eMINTS training for eMINTS teachers, eMINTS4ALL, eMINTS4SpecialEducators, eMINTS4Techs                  Scheduled training for all teachers through district professional development – Transfer from trained teachers                  Transfer from trained eMINTS teachers to team teachers</p>			
<p><b>Tasks/Action Steps</b>  <i>What Will Be Done?</i></p>	<p><b>Responsibilities</b>  <i>Who Will Do It?</i></p>	<p><b>Resources</b>  <i>(Funding/Time/ People/Materials)</i></p>	<p><b>Timeline</b>  <i>By When? (Day/Month)</i></p>
<p>1.eMINTS training                  2.PD4All                  3.PD4SPED                  4.PD4TECHS                  5.Tech integration,Team Planning, ISTE leadership team                  6. Scheduled district PD</p>	<p>1.ETS, 5 eMINTS teachers                  2.12 teachers                  3.17 sped teachers                  4.2 technology directors                  5.eMINTS, MS teachers                  6. All teachers</p>	<p>1 .Grant Funds                  2. Grant Funds                  3. Grant Funds                  4. Grant Funds                  5. Regular contract time                  6. Regular contract time/district stipends for trainers</p>	<p>1. 100 hours                  2. 40 hrs. yr.                  3. 3 hrs. year 1                  4. 1 full day - ongoing                  5.weekly                  6. monthly</p>
<p><b>Implications For Professional Development</b>                  Covers all eMINTS training, other teachers during scheduled professional development, transfer of learning from teacher to teacher</p>			
<p><b>Implications For Family Involvement</b>                  Faculty will share knowledge and skills with parents and community during open lab instruction sessions each week.</p>			
<p><b>Evidence Of Success</b>                  Increased scores on ProfilerPro survey, increased scores on assessment developed by OSEDA (Bickford), improved instruction and achievement</p>			

## TEAMS<sup>2</sup> OBJECTIVE ACTION PLANS

<p><b>Objective:</b>                  #4 Teacher Technology Curriculum Integration Objective: Technology integration will increase 50% (30% in year one and an additional 20% in year two) comparing an average from teacher logs of technology integration and methods of integration into the curriculum and instruction. Logs from the first quarter of the 2005-2006 school year will be compared to logs from the final quarter of the year for project evaluation and repeated first and final quarter of 2006-2007 school year. However, the technology integration logs will be monitored continuously to adapt goals and action plans.</p>			
<p><b>Improvement Strategies:</b>                  Focus on implementing technology into curriculum, Sharing in team planning, Web page development (counter on webpage to track use)</p>			
<p><b>Tasks/Action Steps</b>  <i>What Will Be Done?</i></p> <ol style="list-style-type: none"> <li>1. eMINTS training</li> <li>2. goals, action plans, monitoring</li> <li>3. classroom implementation</li> <li>4. Classroom walkthrough evaluation</li> <li>5. Classroom observations</li> </ol>	<p><b>Responsibilities</b>  <i>Who Will Do It?</i></p> <ol style="list-style-type: none"> <li>1. ETS, eMINTS teachers</li> <li>2. eMINTS teachers</li> <li>3. eMINTS teachers</li> <li>4. Administrator</li> <li>5. ETS, all eMINTS teachers</li> </ol>	<p><b>Resources</b>  <i>(Funding/Time/People/Materials)</i></p> <ol style="list-style-type: none"> <li>1. Grant Funds</li> <li>2. Regular contract time</li> <li>3. Regular contract time</li> <li>4. Regular contract time</li> <li>5. Regular contract time</li> </ol>	<p><b>Timeline</b>  <i>By When? (Day/Month)</i></p> <ol style="list-style-type: none"> <li>1. weekly</li> <li>2. continuously</li> <li>3. ongoing</li> <li>4. 3 per year</li> <li>5. 10-12 per year</li> </ol>
<p><b>Implications For Professional Development</b>                  Skills from professional development will be used in eMINTS classroom and other core classes.                  25 additional teachers creating web pages in district</p>			
<p><b>Implications For Family Involvement</b>                  Teachers will use technology to improve communication with parents through web pages, email, etc. WebPages will have resources shared to remediate and enrich student basic skills.</p>			
<p><b>Evidence Of Success</b>                  Increased documented usage of technology in teacher logs resulting in improved instruction and student achievement</p>			

TEAMS<sup>2</sup> OBJECTIVE ACTION PLANS

<p><b>Objective: (District funded component of TEAMS<sup>2</sup> .)</b>                  #5 Access Objective: Student, parent, and community access to technology will be increased by the district funding the staffing of open computer labs from 3:30 to 7:00 two nights a week and rotating through buildings to encourage use by more students and adults. Logs will be kept to evaluate topics covered and usage. Participants will be asked to complete periodic questionnaires to better address the needs of participants. (See sample questionnaire in appendix.) Logs from September and April of each year will be compared and evaluated for increased usage each year.</p>			
<p><b>Improvement Strategies:</b>                  Computer labs will be open 2 nights each week for 3 ½ hours to allow students time to work after school and parents time to take advantage of the opportunity after work. Training on various technology topics, such as word processing, web pages, spreadsheets, data bases, etc. will be offered each week.</p>			
<p><b>Tasks/Action Steps</b>  <i>What Will Be Done?</i></p> <ol style="list-style-type: none"> <li>1. Staff Labs</li> <li>2. Present Technology Topics</li> <li>3. Schedule Topics - Staffing</li> <li>4. Publicize Opportunity (newspaper/radio)</li> <li>5. Evaluate (See Sample in Appendix)</li> <li>6. Assess evaluations – Modify as needed</li> </ol>	<p><b>Responsibilities</b>  <i>Who Will Do It?</i></p> <ol style="list-style-type: none"> <li>1. Faculty</li> <li>2. Faculty</li> <li>3. ETS</li> <li>4. ETS</li> <li>5. Participants</li> <li>6. ETS-Adm- Techs</li> </ol>	<p><b>Resources</b>  <i>(Funding/Time/ People/Materials)</i></p> <ol style="list-style-type: none"> <li>1. District Funds</li> <li>2. District Funds</li> <li>3. District Funds</li> <li>4. District Funds</li> <li>5. District Funds</li> <li>6. District Funds</li> </ol>	<p><b>Timeline</b>  <i>By When? (Day/Month)</i></p> <ol style="list-style-type: none"> <li>1. 2 nights a week</li> <li>2. 1 night a week</li> <li>3. monthly</li> <li>4. monthly</li> <li>5. each session</li> <li>6. ongoing</li> </ol>
<p><b>Implications For Professional Development</b> Faculty will be invited to attend sessions that would strengthen needed technology skills. Faculty could share knowledge and expertise with other teachers, parents, students, community members.</p>			
<p><b>Implications For Family Involvement</b> Parents and community members will be encouraged to take advantage of free use of school technology and training to learn or improve their technology skills and access online information, resources, communicate, and to work with their children on projects.</p>			
<p><b>Evidence Of Success</b> Logs of training topics and participation will be kept and evaluations from participants will be summarized.</p>			

# Session Evaluation

Date \_\_\_\_\_

Topic of Training \_\_\_\_\_

Trainer \_\_\_\_\_

What was good about this session? Why?	What could be improved about this session? How?	What should be removed from this session? Why?

Additional Comments:

## TEAMS<sup>2</sup> TIMELINE OF ACTIVITIES

Year 1 Activities	Responsible Party	J	A	S	O	N	D	J	F	M	A	M	J	Funds	
														District	Grant
Finalize project/budget	ISTE team	•													•
ISTE PD	ISTE Leadership Team	•							•			•			•
Order Equipment	ETS, Tech Director	•												•	
Inventory/Install Equipment	Tech Director, ETS	•	•											•	•
Evaluate/Adapt Project	ISTE Team, all participants	•	•	•	•	•	•	•	•	•	•	•	•	•	
Continued monitoring/adapting project	ISTE team, all eMINTS	•	•	•	•	•	•	•	•	•	•	•	•	•	
TEAMS <sup>2</sup> Blog	MS Tech Teacher for all teachers		•	•	•	•	•	•	•	•	•	•	•	•	
Student Tech Skill Assessment ISTE/eMINTS developed	Tech Teacher, eMINTS evaluators		•									•		•	•
Wireless Networking Completed	Tech Director		•											•	
MS Team Meetings	MS teachers, Math teachers leaders		•	•	•	•	•	•	•	•	•	•		•	
eMINTS Year 2 Teacher Training	ETS/year 2 teachers		•	•	•	•	•	•	•	•	•	•		•	
eMINTS Training Sessions	ETS/eMINTS teachers		•	•	•	•	•	•	•	•	•	•			•
ProfilerPro Tech Survey/Tech Literacy Survey by eMINTS	ETS, eMINTS evaluation team		•									•			•
Equipment Logs	All users of equipment		•	•	•	•	•	•	•	•	•	•		•	
Goal setting/Monitoring	eMINTS teachers/students		•	•	•	•	•	•	•	•	•	•		•	
Teacher/Student Portfolios	eMINTS teachers, students		•	•	•	•	•	•	•	•	•	•		•	
Develop Diagnostic Math Tests	3-8 math teachers		•	•	•									•	•
Math Focus Groups	eMINTS evaluators, math teachers		•	•	•	•	•	•	•	•	•	•		•	•
eMINTS strategies in Math classes	Math teachers		•	•	•	•	•	•	•	•	•	•		•	
eMINTS4ALL training	ETS/12 ms and elementary teachers			•	•	•	•	•	•	•	•	•			•
Student/Parent/Community Open Labs	Building Techs, ETS			•	•	•	•	•	•	•	•	•		•	
Math Teachers 3-8 observations	ISTE Team			•	•	•									•
Evaluate eMINTS Teachers Tech Integration	Administrator			•				•				•		•	

## TEAMS<sup>2</sup> TIMELINE OF ACTIVITIES

District scheduled Tech PD	Trained teachers transfer of learning			•	•	•		•	•	•	•	•		•	
Teacher/Student survey	eMINTS evaluation team			•								•			•
Quarterly newsletter/radio Tech Time	ETS, Administrators				•			•		•		•		•	
eMINTS semi-annual reports	ISTE Team				•			•			•		•		
Administer Diagnostic Math Tests	3-8 math teachers					•		•		•				•	
Community Technology Nights	eMINTS teachers							•			•			•	
Parent Teacher Conference	eMINTS teachers									•				•	
MS Conference	eMINTS Teachers									•				•	
Develop/Implement Interdisciplinary Unit 2	MS teachers										•			•	
eMINTS in Special Education	Teachers, councilors, administrators										•			•	
eMINTS in Special Education	15 Sp Ed teachers					•									•
EMINTS4ADMINISTRATORS	Administrators				•										•
eMINTS4ALL Class room visits	ETS 6-10 per year			•	•	•	•	•	•	•	•	•	•	•	•
Article to Transescent, School & Community	eMINTS Teachers										•			•	
<b>Year 2 Timeline</b>														•	
Finalize project/budget year 2	ISTE team	•													•
ISTE Leadership Team continues grant facilitation	ISTE Leadership Team	•	•	•	•	•	•	•	•	•	•	•	•	•	
Order Equipment	ETS, Tech Director	•												•	
Inventory/Install Equipment	Tech Director, ETS	•	•											•	•
TEAMS <sup>2</sup> Blog	MS Tech Teacher for all teachers		•	•	•	•	•	•	•	•	•	•	•	•	
Evaluate/Adapt Project	ISTE Team, all participants	•	•	•	•	•	•	•	•	•	•	•	•	•	
Continued monitoring/adapting project	ISTE team, all eMINTS	•	•	•	•	•	•	•	•	•	•	•	•	•	
Student Tech Skill Assessment ISTE/eMINTS developed	Tech Teacher, eMINTS evaluators		•									•		•	
MS Team Meetings	MS teachers, Math teachers leaders		•	•	•	•	•	•	•	•	•			•	
eMINTS Year 2 Teacher Training	ETS/year 2 teachers		•	•	•	•	•	•	•	•	•				•



## TEAMS<sup>2</sup> TIMELINE OF ACTIVITIES

eMINTS4All	ETS		•	•	•	•	•	•	•	•	•	•	•			•
District Tech Professional Development	District Professional Dev. Com.			•	•	•		•	•	•	•	•	•		•	
Webdesign and support	ETS		•	•	•	•	•	•	•	•	•	•	•		•	
Continued Team Tech integration	MS teachers		•	•	•	•	•	•	•	•	•	•	•		•	
Interdisciplinary units (3)	MS teachers					•							•		•	
Goal setting, action plans, (Teachers)	All MS teacher		•	•	•	•	•	•	•	•	•	•	•		•	
Goal setting, action plans, (students)	All students core subjects		•	•	•	•	•	•	•	•	•	•	•		•	

Beyond year two, TEAMS<sup>2</sup> will continue and expand to immerse the Chillicothe R-II district in instructional technology, training, and support. The ISTE Leadership team will continue to monitor and modify project activities and coordinate communication among key stakeholders. Project goals and objectives will be examined and rewritten to address current needs. The project name will change to reflect the broadening focus from middle school to whole district. Professional development will continue as needs indicate and equipment that is in place will be maintained and new equipment will be added to continue increasing opportunities for Chillicothe students and teachers.

<b>Budget Explanation Year One</b>	District	State	Total
<b>Salaries</b>			
*eMINTS PD stipend- 5 teachers @\$25 hr. x 100		\$12,500	\$12,500
*EMINTS 4 All stipend-12 teachers @ 40 hr. x \$20 hr.		\$9,600	\$9,600
eMINTS 4 Administrators stipend- 4 administrators @ \$20 hr. x 16 online hrs	\$1,280		\$1,280
*eMINTS 4 Special Educators stipend-17 teachers @ \$20 hr. x 3 online hrs.		\$1,020	\$1,020
*Middle School Tech Support stipend-5 rooms @ \$20 hr. x 10 hrs-setup		\$1,000	\$2,800
*10 hrs @ \$20 hr. x 9 months-regular support		\$1,800	
District Tech Support stipend-5 rooms @ \$20 hr. x 10 hrs-setup	\$1,000		\$1,000
eMINTS PD All Day sessions- 5 substitutes @ \$75 day x 4 days	\$1,500		\$1,500
eMINTS 4 Techs substitute-1 substitute @ \$75 day x 1 day	\$75		\$75
Webdesign training for district teachers-28 hrs. @ \$40	\$1,120		\$1,120
Smartboard, Inquiry, Resources PD Stipends paid to teachers	\$7,500		\$7,500
*ISTE Leadership Days substitutes- 3 subs @ \$75 x 2 days		\$450	\$450
<b>Total Salaries</b>	\$12,475	\$26,370	\$38,845
<b>Benefits</b>			
*eMINTS PD stipend-\$12,500 x .12%		\$1,500	\$1,500
*eMINTS 4 All stipend-\$9600 x .12%		\$1,152	\$1,152
*eMINTS 4 Special Educators stipend-\$1020 x .12%		\$123	\$123
*Tech Support stipend-\$2,800 x .12%		\$336	\$336
eMINTS 4 Administrators stipend-\$1280 x .12%	\$154		\$154
Webdesign training for district teachers-\$1,120 x .12%	\$135		\$135
Tech Support stipend-\$1,000 x .12%	\$120		\$120
<b>Total Benefits</b>	\$409	\$3,111	\$3,520
<b>Purchased Services</b>			
*ISTE Finalization Conference		\$2600	\$2,600
*ISTE Conference Travel-360 miles @ .30 mile		\$108	\$108
*ISTE Conference Lodging-5 members at \$60 x 2 nights		\$600	\$600
*ISTE Continued PD- 2 days- 240 miles @ .30 mile x 2 days		\$144	\$144
*eMINTS PD Fee		\$57,312	\$57,312
*eMINTS Contracted Evaluation-Oseda		\$19,104	\$19,104
Cell phones-5 track phones @ \$135		\$675	\$675
Kinetic Account- Teacher webpages-25 accounts @ \$10	\$250		\$250

eMINTS 4 Techs PD Travel-240 miles @ .30 mile x 1 day	\$72		\$72
Air conditioning-3 eMINTS classrooms @ \$700 each	\$2,100		\$2,100
eMINTS 4 Administrators PD Travel- 240 miles @ .30 mile x 1 day	\$72		\$72
ISTE Conference Meals-5 members at 1 meal	\$50		\$50
Digital Storytelling Registration-1 teacher @ \$500	\$500		\$500
Digital Storytelling mileage-240 miles @ .30 mile x 5 days	\$360		\$360
<b>Total Purchased Services</b>	\$3,404	\$80,543	\$83,895
<b>Materials and Supplies</b>			
Smart Ideas Software- Middle School Building License		\$2,500	\$2,500
Digital Cameras-5 cameras @ \$366		\$1,830	\$1,830
Laptop Carts-5 carts @ \$625		\$3,125	\$3,125
All-In-One Printers-5 printers @ \$380		\$1,900	\$1,900
Black and White Laser Printers-5 printers @ \$396		\$1,980	\$1,980
*Dreamweaver Software-5 copies @ \$89		\$445	\$445
*Fireworks Software-5 copies @ \$89		\$445	\$445
mPOWER Software-district license- local foundation grant funded	\$2,500		\$2,500
<b>Total Materials and Supplies</b>		\$12,225	\$14,725
<b>Capital Outlay</b>			
Smartboards-31 @ \$1399- shipping- 31 @ \$100		\$43,369 \$3100	\$46,469
Smartboard Stands-3 @ \$349 Shipping- 3 @ \$40		\$1,047 \$120	\$1,167
Projectors-20 @ \$1020 Shipping- 20@ \$20		\$20,400 \$400	\$20,800
Ceiling Mounts-28 @ \$339 Shipping- 28 @ \$24		\$9,492 \$672	\$10,164
Teacher Station Computers- 5 stations @ \$898		\$4,490	\$4,490
*Teacher Laptops-5 laptops @ \$1442		\$7,210	\$7,210
Student Laptops-125 laptops @ \$1297		\$162,125	\$162,125
Cabling for Smartboards-31 @ \$312 Shipping- 31 @ \$18		\$9,672 \$558	\$10,230
*eMINTS 4 All-11 laptops @ \$1297		\$14,267	\$14,267
<b>Total Capital Outlay</b>		\$276,922	\$276,922

<b>Budget Explanation Year Two</b>	District	State	Total
<b>Salaries</b>			
*eMINTS PD stipend- 5 teachers @\$25 hr. x 75		\$9,375	\$9,375
*eMINTS 4 All stipend-12 teachers @ \$20 hr. x 20 hrs.		\$9,600	\$9,600
*Middle School Tech Support stipend-10 hrs @ \$20 hr. x 9 months-regular support		\$1,800	\$1,800
eMINTS PD All Day sessions- 5 substitutes @ \$75 day x 2	\$1,125		\$1,125
Webdesign support for district teachers- 16 hrs. @ \$40	\$640		\$640
Smartboard, Inquiry, Resources PD Stipends paid to teachers	\$5,000		\$5,000
<b>Total Salaries</b>	\$6,765	\$20,775	\$27,540
<b>Benefits</b>			
*eMINTS PD stipend-\$9,375 x .12%		\$1,125	\$1,125
*eMINTS 4 All stipend-\$9600 x .12%		\$1,152	\$1,152
*eMINTS 4 Special Educators stipend-\$1020 x .12%		\$123	\$123
*Tech Support stipend-\$1,800 x .12%		\$216	\$216
*eCoach stipend- \$2400 x .12%		\$288	\$288
Webdesign training for district teachers-\$640 x .12%	\$77		\$77
<b>Total Benefits</b>	\$77	\$2,904	\$2,981
<b>Purchased Services</b>			
eCoach subscription- 3 teachers @ \$100		\$300	\$300
*Pd4ets Module Subscription		\$500	\$500
*eMINTS PD Fee		\$11,706	\$11,706
*eMINTS Contracted Evaluation-Oseda		\$3,902	\$3,902
Cell phones-5 track phones @ \$100		\$500	\$500
Kinetic Account- Teacher webpages- 25 teachers \$10	\$250		\$250
<b>Total Purchased Services</b>	\$250	\$16,908	\$16,908
<b>Materials and Supplies</b>			
Projector Replacement Bulbs- 23 @ \$500		\$11,500	\$11,500
Smartboard Tablets- 8 @ \$600		\$4,800	\$4,800
CD-RW- 200	\$120		\$120
<b>Total Materials and Supplies</b>	\$120	\$16,300	\$16,420
<b>Capital Outlay</b>			

Smartboards-8 @ \$1399 Shipping-8 @ \$100		\$11,192 \$800	\$11,992
Projectors-8 @ \$1020 Shipping- 8 @ \$20		\$8,160 \$160	\$8,320
Ceiling Mounts-8 @ \$339 Shipping- 8 @ \$24		\$2,712 \$192	\$2,904
Student Workstations- 15 stations @ \$778		\$11,670	\$11,670
Cabling for Smartboards-8 @ \$312 Shipping- 8 @ \$18		\$2,496 \$144	\$2,640
	<b>Total Capital Outlay</b>	\$37,526	\$37,526
<b>TOTALS</b>			