

Technology Enhancement Competitive Grant Descriptions 2008-09 (Fund Code 170)

Brockton Public Schools

Project title: Enhancing Mathematics Education through Technology

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Partner district: Braintree Public Schools

Project summary: The goal of this project is to improve students' learning of mathematics through the use of technology. Two graduate level courses designed by Bridgewater State College will be offered to math and special needs teachers in grades 6 through 12. The courses will focus on diagnosing students' math needs through formative assessment and engaging instruction that integrates technology. The first course will focus on number sense and algebra, while the second course will focus on with geometry, measurement and statistics. Additionally, administrators will be offered a workshop on recognizing high-quality technology integration and evaluating instruction in a universally designed classroom. To sustain the work of this year-long project, participating teacher leaders will be trained in facilitating professional learning communities. These learning communities will be active during and after the courses for teachers to share best practices, reflect on lessons learned, edit lessons, and post effective lessons on MassONE. The districts have purchased interactive whiteboards for teachers to use in delivering instruction.

Cambridge Public Schools

Project Title: Using Web 2.0 Tools in the World Language Classroom

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Partner districts: Newton Public Schools, Somerville Public Schools

Project Summary: This project focuses on developing the ability of world language teachers to use Web 2.0 to support and accelerate their students' learning of the target language. To bring these new tools into the classroom, forty teachers in the three districts will first participate in the online course "Using Web 2.0 Tools to Address the Five "C's" of language Learning" developed by Education Development Center (EDC). In this course teachers will learn how to use blogs, podcasts, wikis, and asynchronous text and audio discussions in classroom instruction to achieve key curricular goals. The online

course will be facilitated by four teachers (two each from Cambridge and Newton), who will be trained and supported by EDC prior to and during delivery of the course. Teacher participants will complete and submit a final product consisting of a three-class-period unit plan that incorporates at least one of the Web 2.0 tools and implements it in a one-to-one computing environment with students. Participants will also develop rubrics by which to judge the quality of student productions in the new media formats. Participants will meet to review projects in a summer seminar in 2009.

Community Day Charter Public School

Project Title: Building Technology Literacy through Integrated Curriculum (BTL InC)

Contact: Susan O'Neill, 978-682-6628, soneill@thecommunitygroupinc.org

Partner districts: Lawrence Family Development Charter School, Lawrence Public Schools

Project Summary: Participating teachers will increase their capacity to develop and implement curriculum that offers students expanded opportunities to use technology to improve academic achievement. Teachers will attend face-to-face meetings, access online training modules, develop and implement integrated learning scenarios, participate in project evaluation, and share classroom experiences with their peers. The project is partnering with the Community Partners Initiative (CPI), a professional development organization that has assembled a team of educators with extensive classroom teaching and professional development expertise. CPI's experience includes teaching online using the MassONE Moodle course management system. CPI will design, deliver and provide ongoing training and support to project participants.

Easthampton Public Schools

Project Title – Using Multimedia to Develop Understanding (UMDU)

Contact: Christa McCauley, 413-529-1500, mccauleyc@easthampton.k12.ma.us

Partner district: Hampshire Regional School District

Project Summary: The goal of this project is to help middle and high school teachers use technology and multimedia tools to further develop students' understanding of curriculum content. Using MassONE and courses from PBS TeacherLine, teachers will explore Bloom's taxonomy and investigate ways to promote higher level thinking skills through the use of use technology and multimedia. As a final assignment, teachers will develop a multimedia project designed to promote higher-level thinking skills. Teachers from both districts will further their understandings and examine best practices by sharing their projects during three face-to-face workshops. Finally, teachers will meet with

curriculum directors to share outcomes, develop curriculum, and recommend three projects to the Department of Elementary and Secondary Education.

Hampshire Educational Collaborative

Project Title: Math + Web 2.0 = Learning 4 All (M+W=L)

Contact: David Greenberg, 413-624-5557, dgreenberg@tep-wm.org

Partner districts: Gateway Regional School District, Greenfield Public Schools, Hadley Public Schools, Hatfield Public Schools, Northampton Public Schools, Northampton-Smith Regional Vocational School District, Ralph C. Mahar Regional School District, South Hadley Public Schools, Ware Public Schools

Project Summary: This project will provide 45 hours of professional development to math teachers (grades 5 – 9) in nine partnering districts in western Massachusetts. Teachers will utilize a variety of web-based free and open source tools, such as Plop-It!, Skype, SlideShare, Diigo, Del.icio.us, GoogleDocs, as well as podcasting software and hardware. Teachers will become familiar with specific resource-rich web sites for math content and lesson plans. The result will be a deepening of teachers' mathematical content understanding and enhanced technology instructional strategies. The technology will enable students to work collaboratively and share their work, both in and out of the classroom, thereby increasing time on task. The course will be hybrid in format, combining face-to-face instruction with online content posted within the MassONE Moodle course management system.

New Bedford Public Schools

Project Title: Using Online Tools to Explore the Earth, Moon, and Sun

Contact: John Gomes, 508-997-4511 x3455, jgomes@newbedford.k12.ma.us

Partner district: Acushnet Public Schools

Project Summary: This project aims to address the need for ongoing professional development for elementary teachers to increase their understanding of the Earth and Space Science standards, and to learn how to integrate technology into the teaching of this content. The project also focuses on using new technology tools to enhance the teaching of this curriculum. There is a wealth of new online tools that are freely available for teachers to use with their students in the computer labs. To meet these important goals, New Bedford and Acushnet will offer an 8-week online course for elementary teachers focused on the earth, moon and sun, which will help teachers increase their content knowledge and learn to implement technology-enhanced projects that are aligned with standards. As a final product, teachers will prepare a classroom unit that incorporates the skills and science content they

learned in the course, and then implement that project with their students in a one-to-one computer environment.

Oxford Public Schools

Project title: E-LITE

Contact: Neil L Trahan, ntrahan@oxps.org, 508-987-6081

Partner districts: Auburn Public Schools, Grafton Public Schools, Millbury Public Schools, Sutton Public Schools

Project summary: Project E-LITE will focus on providing face-to-face professional development and individual technology integration support for teachers in grades 3 - 5. The project's goal will be to strengthen the abilities and skills of a team of five teachers from each of the five participating districts, so that they can:

- properly implement and teach the technology literacy standards through appropriate grade-level content lessons in a one-student-to-one computer environment,
- improve student achievement and participation through the use of technology,
- improve student technology literacy skills,
- become confident role models and mentors for other teachers in their district.

This project embraces technology integration and the concept of providing students with technology instruction through regular curricular activities and not as a substantially separate subject or class.

Salem Public Schools

Project title: Bridging the Gap . . . Scientifically (The "Bridge" Project)

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Partner district: Beverly Public Schools

Project summary: This project will provide teachers with professional development in the use of technology resources in science instruction for the purpose of improving student academic performance and building 21st century skills. These new technologies will facilitate mastery of the content via data collection and analysis, collaboration, and communication with students in both school districts. Every year the Beverly and Salem communities meet on the Beverly-Salem Bridge and commit to *Bridge the Gap* before the traditional Thanksgiving football game. From this year forward the two communities will also meet *under* the bridge and commit to *Bridge the Gap* using science to protect and preserve their shared environment. Initially students will learn how to use scientific data collection probes to conduct investigations into cellular respiration. They will then

use multimedia tools to create digital lab reports. Their study will culminate with a focus on global warming, with students from both districts collaborating to develop a series of "public service podcasts" to educate the public on what can be done (and why) to alleviate this serious environmental problem.

South Middlesex Regional Vocational Technical School District

Project Title: Closing the Proficiency gap in Mathematics through Technology Enhancement

Contact: Joseph O'Brien 978-551-1914, joepobrien30@hotmail.com

Partner districts: Assabet Valley Regional Vocational School District, Montachusett Regional Vocational School District

Project summary: In this project, Framingham State College will deliver professional development in how to utilize technology to increase student achievement in algebra, geometry, number theory, probability and statistics. The target audience consists of both academic math teachers and career/technical teachers from the two high schools. The content will be driven by the Massachusetts Comprehensive Assessment System as well as the embedded academics strands of the Massachusetts Career and Technical Frameworks. The one-teacher-to-one-computer learning experience will result in the development of three lessons that each participant will deliver to his own class of technical students. These classes will be observed and reviewed for improvement in the summer of 2009.

Springfield Public Schools

Project title: Instructional Methods to Positively Affect the use of Classroom Technology (IMPACT)

Contact: Dr. Deborah K. Teale Gendreau, 413-787-6605,
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Partner district: Ludlow Public Schools

Project summary: This project will create a cross-district professional learning community working collaboratively to improve their own productivity and student achievement through the integration of technology. Forest Park Middle School and Baird Middle School teachers will participate in hybrid (face-to-face and online) technology training opportunities preparing them for use of one-to-one technology with students in their academic areas. Teachers will investigate the use of software applications to analyze MCAS and other district assessments to inform curriculum, instruction, and assessment decisions. Finally, using MassONE curriculum development tools, teachers will create

and implement, with embedded coaching support, technology-infused standards-based lesson plans with students in grades 7-8 and reflect and share their experiences and resources with one another. MassONE's Moodle course management system will be used to house professional development agendas and forums to extend the learning for participating teams.

West Springfield Public Schools

Project title: Using Interactive Whiteboards with Multimedia for Teaching Ideas - New Things in New Ways

Contact: Angelo Rota, 413-263-3448, rota@wsps.org

Partner district: Springfield Public Schools

Project summary: Two cadres of K-12 English language arts and mathematics teachers will receive forty-five hours of face-to-face professional development in the use of the interactive whiteboard, along with multimedia technologies that can be integrated into whiteboard use. Teachers will meet face-to-face for five sessions to practice their learning on the interactive whiteboard. In between the face-to-face sessions, MassONE and other web-based applications will be used as tools to enhance and promote active independent learning. By the end of the professional development, each teacher will have created three fully integrated lesson plans involving interactive whiteboards. These lesson plans will be used with students in the spring. At the conclusion of the school year, teachers will reunite to evaluate their success and make any additional changes to their lesson plans based on the feedback from their students and their peers.

Worcester Public Schools

Project Title – WHEEL IT for ELA! (Worcester and Hudson Educators Enhancing Learning by Integrating Technology for ELA)

Contact: Arnold Pulda, 508-799-3415, puldaa@worc.k12.ma.us

Partner district: Hudson Public Schools

Project summary: Middle School teachers will participate in an eight-week professional development workshop focusing on an inquiry-based process that helps engage students in research. The workshop will also explore how technology can support the research process in the English language arts curriculum, as well as in other curriculum areas. Participants will consider a variety of tools—both established technologies, such as Inspiration and PowerPoint, and emerging Web 2.0 technologies—to support brainstorming and concept mapping, locating relevant information resources, organizing and analyzing information, and preparing presentations and reports. Participants will

consider how to use these tools with all their students, including their English language learners and special education students. By the end of the workshop, participants will have developed a lesson plan with strategies for integrating technology into each phase of the research process, as well as a rubric for evaluating student presentations.