

The Aspire Wire

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Dear Friends,

I hope your new year is off to a good start. Aspire has had a busy winter. In January, we welcomed the [National Center for Race Amity](#) to Wheelock. Hosted by Aspire, this Center will promote racial healing through education, theater and dialogue for children and youth. I encourage you to contact [Dr. William Smith](#), the Center's Director, to learn more about this exciting new initiative.

We have also continued work on several education projects. In this issue of the *Aspire Wire*, we profile two current initiatives with Wheelock faculty and community partners to improve STEM (Science Technology Engineering and Math) education: The **Science Learning Teams** project and the **Higher Education STEM Partnership**.

In Massachusetts and nationally, STEM education has taken center stage, with the broad recognition that STEM knowledge and skills are essential for success in today's global economy and to advance science, health and education innovation. Among other developments, President Obama recently announced a \$250 million initiative to train math and science teachers and the state's federal *Race to the Top* application outlines significant plans for strengthening STEM education.

While most STEM enhancement efforts focus on the secondary and post-secondary level, quality STEM education must begin earlier. Recent reports by the National Research Council and the Carnegie Corporation stress the importance of children developing both an interest and an aptitude in math and science in the elementary grades to ensure their long-term engagement in and study of these areas.

As the two projects profiled below demonstrate, Wheelock faculty and community partners are stepping forward to meet this challenge, seeking ways to improve the quality of STEM teaching and learning in PreK-8 schools and out-of-school settings. In doing so, we hope to support this important national priority.

Best,



Jake Murray, Aspire Director

Science Education – It Takes Teamwork!

This fall, with funding from the US Department of Education, Aspire launched the Science Learning Teams (SLTs) project, an initiative to improve K-8 science education. SLTs bring together Wheelock College science and education faculty, teachers and after school staff at partner school sites to develop and implement science improvement plans. The three current SLT sites include:

Irving Middle School/Citizen Schools, Boston

Wheelock Assistant Professor of Physical Science [Chuck Fidler](#) is

working with middle grade teachers and [Citizen Schools](#) staff to design an integrated, inquiry-based science program that is continuous across grades 6-8 and seamlessly connected to after school activities. Specific science subject areas the team will focus on include the human body and weather. Fidler will also provide professional development for teachers and Citizen Schools staff, recruit Wheelock students as science volunteers and tutors, and arrange summer visits to local STEM firms for Irving students.

The Kennedy-Longfellow School/East End House, Cambridge

Professor and Science Department Chair [Dr. Ellen Faszewski](#) is collaborating with teachers, East End House after school staff and community science partners to implement a biodiversity curriculum that will involve service learning opportunities at a local pond. With the help of Claudia Thompson from [Grow Native Cambridge](#), the team will also create a native plant woodland garden on school grounds. Dr. Faszewski will both advise on curriculum enhancement and lead professional development for teachers and after school staff.

The Haley School, Boston

Instructors in science education [Karen Worth](#) and [Jeff Winokur](#) are teaming with Haley School staff to review school-wide science curriculum and goals and to explore school/after-school connections that help students further develop science knowledge and skills. Worth and Winokur will coordinate professional development for teachers and after school staff and support the implementation of new and sustainable science activities, and curricular resources across school and after school settings.

Collective Wisdom: The Higher Education STEM Partnership

This past year, with funding from the Massachusetts Technology Collaborative, Aspire convened the Higher Education STEM partnership, an advisory group of Wheelock faculty, local teacher education faculty, and community STEM educators. The Partnership was charged with identifying goals and strategies for strengthening the training of both pre-service and in-service PreK-3 teachers in math and science content and instruction.

Led by project consultant, member of the MA Governor's STEM Advisory Council, and former school superintendent, Isa Zimmerman, the Partnership reviewed current practices and identified strategies through literature reviews,

key informant interviews, working meetings, and a poll of advisory group members. Aspire will release a strategic report detailing the Partnership's findings and recommendations this February/early March.

In addition to Wheelock, representatives from the following institutions participated in this initiative: Boston University, Brandeis University, Clark University, Middlesex Community College, Urban College of Boston, Simmons College, the MA Department of Elementary and Secondary Education, the Massachusetts Technology Collaborative, Science Club for Girls and the Boston Teacher Residency program.