

A Museum- and School-Based Teacher Residency Partnership for Preparing and Supporting New Earth Science Teachers

PR#: U336S140026

Organization: American Museum of Natural History

Address: Central Park West at 79th Street New York City, NY 10024

Project Director: Rosamond Kinzler

Phone: (212) 496-3637

Email: rkinzler@amnh.org

Priorities: AP2, CP1

Award Amount: \$5,343,018.00

Abstract: The project, titled **A Museum- and School-Based Teacher Residency Partnership for Preparing and Supporting New Earth Science Teachers**, is designed to meet Absolute Priority 2: Teacher Residency programs as well as Competitive Preference Priority 1: STEM. The American Museum of Natural History (AMNH) in New York City (NYC), in partnership with New York State (NYS) and NYC high-needs LEA middle and high schools, and the Center for Education Policy, Applied Research, and Evaluation from the University of Southern Maine, proposes to refine, expand, and institutionalize its pilot residency program, supported through 2016 with New York State Education Department and National Science Foundation Robert Noyce Teacher Scholarship Program funding, as a residency program for a Master of Arts in Teaching degree with a Specialization in Earth Science for grades 7–12 (the proposed TQP funded AMNH MAT-R).

The rigorous 36-credit, 15-month program combines coursework in pedagogy, science content, and content specific pedagogy, all including applications to the clinical components. Focused on a subject area that the USDOE has, with few exceptions, steadily identified as a Teacher Shortage Area for NYC and NYS since 1999 and in which AMNH has significant depth and breadth of expertise, collections, and resources, AMNH MAT-R is an innovative program that integrates theory with practice and is specifically focused on high-needs, urban schools with diverse student populations, including English Language Learners and students with special needs. AMNH MAT-R builds on AMNH's successful track record as a chartered educational institution with its fully accredited Richard Gilder Graduate School and pioneering programs for diverse populations of children and teachers that partner with schools, develop programs collaboratively with working scientists and master educators, and integrate data, assessment, and technology. It builds as well on the success of the pilot, which has launched nearly 70 new teachers, who passed the certification exam at an average rate of 95.2% and are teaching in high-needs schools.

Project activities include but are not limited to: Mentored Residency in high-needs schools, including rotations with teachers of ELL and students with disabilities; Summer 1 Museum Teaching Residency at AMNH, in which candidates co-teach in an AMNH pipeline program, work with diverse populations of urban youth, and learn the approaches and resources used in informal science education; Summer 2 Museum Science Practicum Residency, in which candidates engage in hands-on, inquiry based laboratory and field work experiences under the supervision of AMNH scientists; pedagogy courses, that focus on linking theory with practice; science content courses, co-developed and co-taught by AMNH scientists and science educators that require clinical assignments for classroom delivery; extensive mentoring, assessment, and support from AMNH faculty, school mentors, and through online communities; a two-year, post-graduation Induction Program that supports residents as they transition into their careers and reflects AMNH's understanding of the complexities of teaching science in high-

needs schools. The goal of this proposal is to develop and implement a highly effective residency program to meet the critical shortage of certified Earth Science teachers prepared to increase student achievement in high-needs schools throughout NYS. While piloted in NYS, the program is proposed for TQP funding as a replicable model.

The AMNH MAT-R will prepare a total of 45 teachers at its high-needs partner schools: (1) Archimedes Academy for Math, Science and Technology Applications (Bronx); (2) Bronx Early College Academy (Bronx); (3) Gorton High School (Yonkers); and (4) Midwood High School (Brooklyn).

