

Title of submission: Teacher-Scientist Partnerships: Collaboration  
for Authentic Student Research Experiences

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#### Abstract

This 2-year project partnered middle and high school science teachers from across western Montana with research scientists from a regional university and the US Forest Service. The project was designed to foster inquiry-based science instruction, build collaborative relationships between teachers and local scientists, create a cadre of teachers dedicated to using student research to facilitate learning, and strengthen existing alliances among education and research institutions in the project area. Specific objectives included: (1) Develop scientific ways of thinking and understanding in participating teachers and their students through the development of authentic research experiences in their schoolyards and adjacent habitats; (2) Promote teaching practices focused on "learning by doing" and inquiry instruction in both teachers and participating scientist mentors and support the development of local ecological research sites during and beyond the project; and, (3) Train learners at all levels to be creative, flexible thinkers, with well developed problem solving skills, and the abilities to work collaboratively and communicate with scientific and general publics.