

SCIENCE INQUIRY LEARNING IN CLASSROOMS – MONTANA STYLE. M.A.

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MSU's Astrobiology Biogeocatalysis Research Center (ABRC) is working with school teachers in southwestern Montana in a collaborative grant with rural school districts, MSU-Native American Studies, MSU-Science and Math Resource Center, MSU-Department of Physics and the Montana Learning Center. Through this grant teachers are gaining science content, pedagogy, and information about Native American tribes of Montana. This collaborative group received a grant from Montana's Office of Public Instruction to fund SILC--*Science Inquiry Learning in Classrooms*, which targets 60 teachers in two county-wide school districts. The goal of grant is to provide teachers of young students (grades 3-6) more exposure to science content, so that their students will score better on science testing. Half of the 60 teachers are from rural-city schools and half are from rural county schools (including one-room schoolhouses).



Nearly all of the participating teachers are Elementary Education majors, with little or no formal science training. Science is just one of their many weekly responsibilities, along with reading, writing, social studies, etc., and very few will have taken a university-level biology or chemistry course at any point in their careers. Astrobiology is a new and exciting subject for the teachers and its interdisciplinary nature is very useful and rewarding for the teachers and their students. Teachers participate in SILC for two years, learning inquiry-based teaching strategies, Native American culture, in Year 1 they also learned physics concepts, while in Year 2 they are exposed to life science concepts. Formative and summative evaluations measure the impact of this instruction on science content knowledge for both teachers and their students.