

“STEM-Based Literacy: A Statewide Initiative”

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ABSTRACT

This proposed collaboration brings together seven institutions (University of Missouri, University of Missouri – St. Louis, University of Missouri – Kansas City, Missouri State University, Missouri Western State University, Central Methodist University, and Missouri University of Science and Technology), the eMINTS (enhancing Missouri’s Instructional Networked Teaching Strategies) National Center at the University of Missouri, the ReSTEM Institute at the University of Missouri, and school districts in five regions throughout Missouri. By using a summer institute model of the Missouri Writing Projects Network (a network of five National Writing Projects), this program will focus on instructional planning that involves evidence-based nonfiction reading and writing in STEM disciplines. Participants will engage in authentic inquiry to gather and analyze information as part of a statewide climate study and share it with a broader audience. The goal is to support teachers in creating lessons that integrate literacy with science and mathematics content. Content consultants in Mathematics and Science will work with Literacy educators to develop and deliver institutes that would be hosted at MU, MSU, MWSU, UMKC, and UMSL. Literacy is defined as the ability to use language in reading, writing, speaking, and listening to understand and to communicate. Being literate in an area, such as science and mathematics, includes critically analyzing information and effectively communicating specialized information. The combined expertise and geographical access allows noteworthy impact on high needs middle and secondary school students across the state. Core STEM concepts will be enhanced by expertise in technology integration, constructivist practices, inquiry based learning, and literacy. This statewide model will increase effective STEM teaching and learning in schools designated as high need, thereby improving the educational experience for students across the state.