

Mid-Phase Competition -- Absolute Priority 3 (STEM)  
The Curators of the University of Missouri Special Trust  
S411B210031

**Scaling and Sustaining Mission HydroSci: Game-Based Learning for Next Generation Science Learning**

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**Title:** Scaling and Sustaining Mission HydroSci: Game-Based Learning for Next Generation Science Learning

**Type of Grant:** Mid-Phase **Absolute Priorities:** AP 1: Strong Evidence; AP 3: STEM.

**Target Number of Students To Be Served in the Project:** At least 7,000. **Grade levels:** 6-8th.

**Definition of High-Needs:** Middle school students at risk for failure in science education because of living in poverty, attending high minority schools or disengagement from science education.

**Brief Project Description:** Mission HydroSci (MHS) is a 3D game-based learning environment and curriculum to support middle school student learning of water systems science and scientific argumentation. The proposed project has two goals: 1) Improve the scalability and sustainability of MHS by improving components of MHS and expanding the platforms for accessing MHS; and 2) Evaluate and extend the MHS evidence-base.

**Summary of Project Objectives:** Our key project objectives are to: (1) Increase the number of schools who can use MHS by expanding the platforms schools can use to implement MHS. (2) Improve efficiency and access to MHS by enhancing myMHS. (3) Improve the effectiveness, efficiency and acceptability of MHS for teachers by enhancing the TSS. (4) Continuously improve MHS throughout the project period. (5) Rigorously evaluate MHS. (6) Study the cost-effectiveness of MHS. (7) Study the use of MHS so as to optimize teacher support and student engagement. (8) Build a plan for sustainability.

**Special Project Features:** Collaboration with the statewide education research networks in Missouri, Oklahoma and Utah will create a regional initiative.

**Partners:** eMINTS National Center, MOREnet, and Abt Associates.