

Project Abstract

Clayton County Public Schools (CCPS) seeks funding for *STEMifying Clayton County* under the Magnet Schools Assistance Program grant in order to reduce the minority group isolation of its Hispanic population. Clayton County Public Schools will afford students the opportunity to participate in innovative programs in STEM or STEAM. *STEMifying Clayton County* will create multiple pathways that will promote increased student achievement and will lead to students having choice-filled lives. Funding from the MSAP proposal will support the implementation of the following school programs: M.L. King, Jr. Elementary STEM: Botany & Zoology, West Clayton Elementary STEAM, North Clayton Middle School STEM: General Studies, and Morrow High School STEM: Engineering, Aeronautical Sciences and Pharmacy.

Each program is designed to offer an accelerated curriculum to all students. The district has outlined the following objectives: **Objective 1:** Increase the academic achievement of all magnet students, demonstrated through improved performance and exposure to rigorous content; **Objective 2:** Reduce, eliminate, or prevent socioeconomic and racial isolation in the proposed schools; and **Objective 3:** Foster interaction among students of different economic, ethnic, and racial backgrounds in classroom activities and activities beyond the classroom, improving teachers' pedagogical knowledge while increasing students' interest in STEM-related careers.

Three research questions will be address: (1) Do CCPS students enrolled in *STEMifying Clayton County* magnet schools exhibit greater student achievement gains than similar students enrolled in non-magnet schools? (e.g. impact) (2) Have the teachers in the four magnet STEM/STEAM schools participated in the project's professional development and integrated content from these into their teaching practices: (e.g. Implementation fidelity) (3) Have the teachers in each *STEMifying Clayton County* school developed and implement unit/lesson plans with instructional materials that reflect the instructional theme of their schools? (e.g. Implementation fidelity)