

GE Developing Futures in Education™ Grant Report Update

Overview and Updates

In 2011, the GE Foundation awarded \$20.4 million to the Milwaukee Public Schools. MPS partners included GE Healthcare and the Milwaukee Teachers' Education Association. The grant began as a math and science professional development for teachers. Then it transitioned to support a cohort of elementary schools focused on math and literacy improvement through the implementation of the Common Core State Standards.



As the grant has progressed through its final phase, the K–8 program has sun-setted, and focus has shifted to college and career readiness and STEM. In fall of 2017, college and career centers were established in 20 of the traditional high schools, six supported through the grant along with internships. Additionally, GE Essential Skills was implemented as a yearlong course for one credit as part of the required courses for the competency-based alternative program. The next phase of the work is focused on STEM integration, specifically at the middle school level. This needed to become a priority with the remaining grant dollars to ensure a solid foundation for students to be successful in high school and strong launch into college and career readiness. Therefore, at the GE Steering Committee meeting held on December 14, 2017, direction was provided by the superintendent, Dr. Driver; Kelli Wells, executive director, GE Foundation; and Bill Berezowitz, senior executive, GE Healthcare, to work collaboratively on creating and implementing a comprehensive STEM plan to ensure that students are engaged in high-quality, culturally-relevant, interdisciplinary STEM learning experiences for today and beyond.

As a result, as early as January 2018, MPS has embarked on a STEM pilot involving the seven traditional middle schools and four K–8 schools in the district to develop a professional learning community that facilitates the exploration of interdisciplinary approaches and exemplary student-led projects, including the integration of science, math, technology, and engineering practices in schools using project-based learning. The following schools are participating: Wedgewood Park IB, Roosevelt Creative Arts Middle School, Daniel Webster Secondary School, Morse Middle School, Audubon Technology and Communication Center Middle School, Lincoln Center of the Arts, Rufus King Middle School, Curtain Leadership Academy, Victory School, Individualized Developmental Educational Approaches to Learning (IDEAL) School, and Whitman School.

These schools started to work with the GE Foundation and its national STEM consultant team, the STEM Happens Network. This team consists of STEM education experts across the country who leverage school practices that have resulted in high-quality integrated STEM education for improved student outcomes. In January 2018, Dr. Salvador Fernandez, founder and CEO of STEM Happens Network, and Kelli Wells, along with the MPS STEM work group, began a listening tour that included visiting schools, meeting with the principals and teachers, and visiting classrooms for observational baseline data.

A vision and mission statement was created with the MPS STEM work group that included metrics to ensure fidelity of implementation. The STEM Happens Network provided consultation, guidance, tools, and resources so that each school leadership team, in collaboration with the MPS STEM work group,

created individualized and tailored STEM action plans that honored the existing work and programs in each school. The next phase includes differentiated professional development (March 3, April 14, and May 19), side-by-side coaching, leveraging train-the-trainer model (STEM Happens Network with MPS STEM work group) and creating integrated STEM unit lesson plans based on disciplinary literacy and ongoing integrated STEM support. This is an exciting opportunity in partnership with the GE Foundation to close the equity gap, innovate, and make MPS a national educational leader in STEM integration.

By the Numbers

Telepresence

- Fall semester of 2017, 11 schools offered telepresence courses.
- Fall semester of 2018, 13 schools projected to give and receive telepresence courses.
- A total of 17 classes were offered, and 402 students enrolled in classes.

College and Career Readiness

- The College and Career Centers (20) have increased the number of student interactions from 3,000 in 2015–16 to more than 24,000 student interactions by January 2018.
- There have been 8,421 student interactions at the (6) GE College and Career Centers by January 2018.
- As of January 2018, 72% of 12th grade students have received support from the College and Career Centers in completing their postsecondary enrollment steps.
- The MPS Fresh Coast Classic College and Resource Fair attracted nearly 2,000 MPS middle and high school students.

STEM Integration

- Eleven schools (four K–8 schools and seven traditional middle schools) have been selected as the pilot for the STEM integration work.
- Conducted common read on *Grades 3–8 STEM Lesson Essentials: Integrating Science, Technology, Engineering, and Mathematics* and created a syllabus, leveraging Google Classroom for 18 Central Services team members, including the Department of Curriculum and Instruction and Transformation Network.
- Creation of initial action plans by the STEM Happens Network, MPS STEM work group, and school leadership for individualized improvement in STEM practices at the school level.
- All 11 new STEM schools—44 teachers and administrators—attended the first integrated STEM Saturday Academy on March 3, 2018, focused on disciplinary literacy as the foundation. Future dates include April 14, 2018, and May 19, 2018.

