

OSLN DESIGN PRINCIPLES

Form New Skills and Sharp Minds for a New Century

The STEM platform school is designed to help young people from broad and diverse backgrounds use their minds well, take charge of their lives and learning, and succeed in a global age.

- Personal mastery of Ohio core subjects, information and communications technology literacy and 21st century skills (critical thinking and problem solving; creativity and innovation; communication and information; collaboration; contextual learning; and information and media literacy).
- Engage the power of science and mathematics as the international language of innovation and engineering and technology as the language of design.
- Learn how to create, acquire, analyze, synthesize, evaluate, understand and communicate knowledge and information in a global context.
- Admission is non-selective with an emphasis on underrepresented and high-need student populations.

Engage Partnerships to Accelerate Capacity and Broaden Opportunity

The STEM platform school is designed to build system capacity, spread innovation and serve the greater common good.

- Serve as a knowledge network for innovative and evidence-based teaching, learning and leadership in science, technology, engineering and mathematics.
- Deliver professional development and technical assistance in effective strategies and practices for STEM education.
- Bring together middle school, high school and higher education faculty and STEM oriented businesses to align and enrich education, workforce and economic development strategies and resources.
- Develop higher education partnerships for mentoring and fostering a college aspiration and success culture.
- Develop partnerships with businesses to engage students in meaningful mentoring and apprenticeship experiences.

Start and Stay Small

The STEM platform school is designed to be small - approximately 100 students per grade - and encompass a personalized learning environment with explicitly high expectations.

- Innovative and flexible use of time. Long blocks of time in integrated courses of study allow for deep inquiry and the development of strong student/teacher and peer-to-peer relationships.
- Build a civic community in the school and ensure each student has an adult who serves as her or his advocate.
- Use service learning, problem-based learning, peer-to-peer learning and internships to feed the imagination and to support self-directed learning.
- Facilities are tailored for personal and small group learning, including networked learning, project rooms, inquiry studios and exhibition spaces.
- The tone of the school should explicitly and consistently stress values of trust, fairness and decency. Parents, students and teachers should be key collaborators and vital members of the learning community.

Make STEM Literacy Attainable and Desirable for ALL

The STEM platform school applies evidence-based approaches to a trans-disciplinary curriculum using project-based learning, differentiated instruction, and authentic assessment of mastery. The school is designed to bridge the gap between how we live and how we learn in the 21st century by blending formal schooling with cooperative learning experiences involving postsecondary education, work and informal education.

- Trans-disciplinary academic curriculum for all students (math, science, social studies, language arts and a foreign language).
- Make curriculum relevant and engaging through the practical, problem solving processes and tools of engineering and technology.
- Complete alignment between high school STEM instructional program and higher education and workforce standards.
- All students are expected to succeed, therefore student learning styles and needs help shape the pace of coursework and instruction.
- All students attain mastery before proceeding to the next level.
- All students will attain early college credit through independent research, group projects, internships, coops and/or dual enrollment coursework.
- Prepare students to pass both standardized and performance based measures.
- Full participation in co-curricula and enrichment activities that strengthen and enhance STEM mastery.

Drive Scalable and Sustainable Innovations

The STEM platform school is designed and supported by a public and private partnership involving K-12 schools, an institution of higher education and a private sector entity with expertise in STEM fields. The school is designed to be meaningful, useful and catalytic. Participating school districts and educational systems receive tangible returns on

investment for their participation with the school. Districts benefit from the research and professional development connected to the school; STEM teachers are trained and cycle back to participating districts; and innovations are shared.

- Participating higher education institutions, 2-year as well as 4-year, work with the school to improve the quality and access to STEM related dual enrollment and early college credit options. With the OSLN and other critical partners, they also design and deliver a shared research, professional development and technical assistance agenda and infrastructure.
- Participating businesses make real, tangible and sustainable commitments.
- Public and private partnership creates a high accountability/high autonomy environment to create and to take to scale evidence-based innovations in STEM and high school education across the region and state.

For more information, email us at OSLN@battelle.org.