MIDDLE SCHOOL STEM COURSE AND CERTIFICATION

East Middle School, Strong Vincent Middle School, Woodrow Wilson Middle School

STEM is an acronym for *science, technology, engineering and math*. The goal of this course is to increase the student's experience with these subjects through hands-on activities, inquiry projects, design – build challenges, and technology projects using the engineering design process. There is also a focus on exploring STEM careers. The universal skills that are practiced and encouraged are collaboration, critical thinking, communication, and creativity. The school year 2017-2018 was the first year that the three middle schools offered a STEM program to students in grades 6, 7, and 8. The program is taught by teachers certified in math, science, and technology.

STEM careers, both those requiring four-year college degrees and those that require technical school or associate degrees, are projected to grow twenty-five percent or more over the next ten years. Erie's Public Schools wants to provide options for our students to follow in these growing fields through awareness and knowledge at this age level.

To more fully prepare our students for their future during and after high school, Erie's Public Schools has implemented a new certification program for its middle school students: Middle School STEM Certification. There is a pathway to this certification that can begin in sixth or seventh grade and must be completed by the end of eighth grade. Upon completion of the pathway, students will be recognized at a closing ceremony in eighth grade.

Pathway to STEM certification

- Complete at least two years of STEM courses, achieving an 80% or higher grade.
- Participate in at least one extra-curricular STEM activity, such as Lego League, STEM Club, Science Olympiad, PJAS, Garden Club, Environmental Club, GE Girls Engineering Camp, or others. The activity must be authorized by the STEM teacher.
- Complete at least one independent project that has been authorized by and presented to the teacher for evaluation. This cannot be a duplicate of a project completed for another class or activity.