Charlotte
PUBLIC SCHOOLS ™


Charlotte Middle School Lead's the Way With STEM Curriculum

Charlotte Middle School launched the "Project Lead the Way's" middle school engineering program at the start of the 2013-2014 school year. Students were able to work with hands-on activities in state of the art learning environments equipped with professional Autodesk Inventor software. Project Lead the Way programs emphasize critical thinking, creativity, innovation, and real-world problem solving. The hands-on learning engages students on multiple levels, exposes them to areas of study that they may not otherwise pursue, and provides them with a foundation and proven path to post-secondary training and career success in fields related to science, technology, engineering and math.
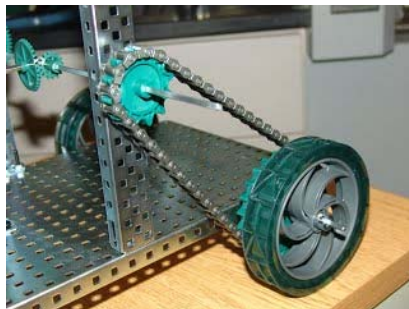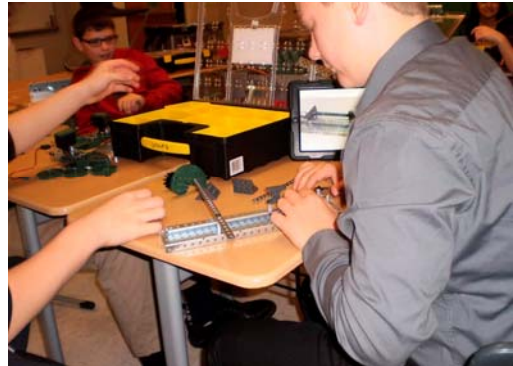
This year at Charlotte Middle School we are offering two STEM classes from PLTW. The first course is <u>Design and Modeling</u> where students explore the engineering design process and use the professional 3D modeling software (Autodesk Inventor) to create models that later can be printed on a 3D printer. The second is an <u>Automation and Robotics</u> class that teaches different gear configurations to let the students build their own robots using VEX parts and motors. Then they program the robots using the RobotC programming language.

This program offers the opportunity for students to embrace creativity, real-world problem solving, and innovation in the areas of science, technology, engineering and math. Integrating this hands-on curriculum with Charlotte Middle School students meets two important needs: it helps students move toward career- and college-readiness and it complements Charlotte Public Schools' strategic plan. It is our hope and expectation that these students will become more involved in school and identify with careers in all aspects of engineering as a result of their experience in Project Lead the Way.