



Middle School Project Lead the Way STEM Courses

*PLTW Courses in Middle School **empower students to lead their own discovery.** The hands-on program boosts classroom **engagement** and excitement, drives **collaboration**, and inspires “aha! moments” and deep **comprehension**.*

Design and Modeling Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. Using design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

Automation and Robotics Students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics® platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms.

App Creators This unit exposes students to computer science as a means of computationally analyzing and developing solutions to authentic problems through mobile app development, and conveys the positive impact of the application of computer science to other disciplines and to society.

Computer Science for Innovators and Makers Throughout the unit, students learn about programming for the physical world by blending hardware design and software development, allowing students to discover computer science concepts and skills by creating personally relevant, tangible, and shareable projects.

Medical Detectives Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a “crime scene.” They solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.

***Productions** Introduction to video productions as a communication tool

***Publications** A course in multimedia/visual communication, exploring design, graphics, and photography, resulting in the creation of the school Yearbook

* Not PLTW courses

Need more information? Contact the Career and Technical Education Office – 354-7314