



Design and Modeling

6th Grade

Students discover the design process and develop an understanding of the influence of creativity and innovation in their lives. They are then challenged to use and apply what they've learned to design a foot orthosis, as well as other projects.



Energy and the Environment

8th grade

Students are challenged to think big and toward the future as they explore sustainable solutions to our energy needs and investigate the impact of energy on our lives and the world. They design and model alternative energy sources and evaluate options for reducing energy consumption. During the last several weeks of this course, students revisit what they learned in other PLTW courses like programming for the physical world by blending hardware design and software development, building and programming Vex robots, and exploring the world of Biomedical engineering through a capstone project of their choice. This will allow students to discover science, technology, engineering, and art concepts and skills by creating personally relevant and tangible projects.



Automation and Robotics

7th Grade

Students learn about the history and impact of automation and robotics as they explore mechanical systems, energy transfer, machine automation and computer control systems. They use the VEX Robotics platform to design projects like the VEX Pull Toy.



Computer Science for Innovators and Makers

7th Grade

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

7th / 8th Grade

Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease. Throughout this quarter, students will solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, dissect a sheep's brain, and learn how the systems of the human body works together to maintain health.

