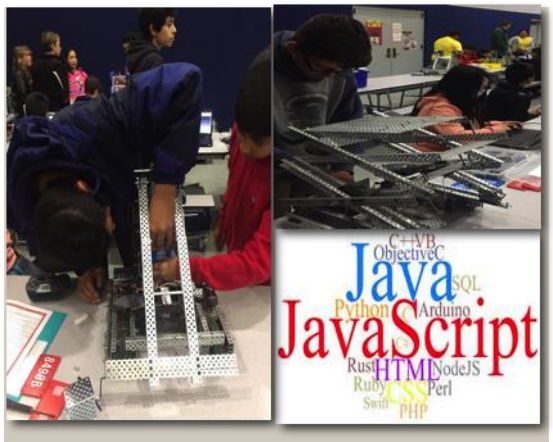
PLTW

The Traweek PLTW Gateway to Technology Program compliments and enhances our rigorous academic curriculum. This hands-on, project-based program provides an engaging educational experience that fosters creativity while building real world engineering skills. PLTW students are given the opportunity to test their ideas using the same advanced modeling software used by companies like Lockheed Martin, Intel, and Sprint. Through our innovative course of study, our students are exposed to a wide range introductory engineering topics that span computer and mechanical skills. Through this unique program, art and science combine, through an exploration of advanced virtual and real world projects, to bring computer coding to life using 3D printing and Robotics. In addition to Robotics, PLTW students have the opportunity to explore advanced topics to include computer science and green energy and the environment. Introduction to Computer Science students learn advanced methods of computer coding, to include mobile app development. In Energy and the Environment, students explore innovative methods to reduce, conserve and produce energy using solar, thermal and wind power. The knowledge and skills that our students acquire and develop through our Gateway to Technology Program form a strong foundation for future STEM learning, with applications in growing fields such as nanotechnology and applied engineering.

California PLTW
PROJECT LEAD THE WAY



Through PLTW, Students will be able to:

- Understand the scientific process, engineering problem-solving, and the application of technology
- Understand how technological systems work with other systems
- Apply knowledge and skills from mathematics in solving real-world problems
- Communicate effectively through reading, writing, listening, and speaking
- Develop leadership and collaboration skills.

Did you know?

- PLTW students achieve significantly higher in reading, math and science
- Students exposed to engineering at an early age go on to study engineering and technology at 5-10 times the average rate

Titan Engineering Gateway

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West Covina, CA 91791

Traweek.c-vusd.org/

TRAWEEK MIDDLE SCHOOL

VEX
PUSH THE LIMITS OF YOUR IMAGINATION

Titan Engineering Gateway

Titan Engineering Gateway

Our goal at Traweek Middle School is to foster lifelong learners who are prepared to meet the challenges of the future. With this in mind, our Robotics program is designed to address the interests and energy of middle school students, while incorporating standards in math, science, and technology. Our students learn how technology enhances engineering to solve everyday problems, while tapping into their natural curiosity. Through these learning experiences, our students develop excitement and motivation to use their imagination, creativity, and innovation to prepare them for success in high school, college, and careers.

Cal Poly Pomona
femineer
College of Engineering

Gateway To Technology
PROJECT LEAD THE WAY
PLTW

Automation and Robotics (AR)

In this course, students trace the history, development, and influence of automation and robotics. They learn about mechanical systems, energy transfer, machine automation and computer control systems. Students use a robust robotics platform to design, build, and program a solution to solve an existing problem.

Design and Modeling (DM)

In this unit, students begin to recognize the value of an engineering notebook to document and capture their ideas. They are introduced to, and use, the design process to solve problems and understand the influence that creative and innovative design has on our lives. Students use industry standard 3D modeling software to create virtual images of their designs and produce a portfolio to showcase their creative solutions.

Introduction to Computer Science 1

This unit exposes students to computer science as a means of computationally analyzing and developing solutions to authentic problems through mobile app development. Students learn to leverage the positive impact of computer science to solve real world problems using knowledge drawn from across multiple disciplines.

Introduction to Computer Science 2

Throughout the unit, students will 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.

Coding

This course is designed to help Titans become skillful at writing computer code to control computer platforms. Once they have acquired coding skills, students learn to write programs with real world, problem-solving potential. Said another way, we want our students to apply computational modes of thought to frame problems, and to guide the process of deducing information to use technology in an innovative manner.

Femineers

Cal Poly Pomona College of Engineering created this program to inspire females to pursue STEAM (Science Technology, Engineering, Arts and Math) in their school aged years and future careers. This program provides 6th, 7th, & 8th grade girls the opportunity to make connections with female mentors and college counseling while building a sustainable community of current and future female STEAM leaders. The Femineers group from Traweek create wearable technology projects and build creative robots that are placed on display during the Cal Poly Pomona Femineers' Showcase.