

## **BUILDING A STRONG FOUNDATION FOR COLLEGE & CAREER COMPUTER SCIENCE PATHWAY**

PLTW Computer Science empowers students in grades 9-12 to become creators, instead of merely consumers, of the technology all around them.

The program's interdisciplinary courses engage students in compelling, real-world challenges. As students work together to design solutions, they learn computational thinking – not just how to code – and become better thinkers and communicators. Students take from the courses in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they take.

*PLTW Computer Science courses are part of the [AP + PLTW computer science pathway](#).*

*Whether building apps to meet client needs or exploring cybersecurity, PLTW Computer Science engages students in interdisciplinary activities that not only build knowledge and skills in computer science, but also empower students to develop essential skills such as problem solving, critical and creative thinking, communication, collaboration, and perseverance. The program's courses empower students with in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they choose.*

### **Computer Science Essentials**

Students will experience the major topics, big ideas, and computational thinking practices used by computing professionals to solve problems and create value for others. This course will empower students to develop computational thinking skills while building confidence that prepares them to advance to Computer Science Principles and Computer Science A.

### **Computer Science Principles**

Using Python® as a primary tool, students explore and become inspired by career paths that utilize computing, discover tools that foster creativity and collaboration, and use what they've learned to tackle challenges like app development and simulation. *This course is endorsed by the College Board, giving students the opportunity to take the AP CSP exam for college credit.*

### **Computer Science A**

Students collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and Web-based databases, as well as creating a game for their friends or an app to serve a real need in their community. This course is aligned to the AP CSA framework.

### **Cybersecurity**

Students explore the tools and concepts of cybersecurity and create solutions that allow people to share computing resources while protecting privacy. *Available Fall 2018.*