**PLTW** 

# COM PUTER SCIENCE





# **COURSES**

### **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 Computer Science Principles exam for college credit.

## **Computer Science A**

Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures. This course is endorsed by the College Board, giving students the opportunity to take the AP Computer Science Principles exam for college credit.

# **Course Spotlight: Cybersecurity**

PLTW Cybersecurity is a full-year course implemented in 10th grade or above that exposes high school students to the many aspects of digital and information security, while encouraging socially responsible choices and ethical behavior. It inspires algorithmic thinking, computational thinking, and especially, "outside-the-box" thinking. Students explore the many educational and career paths available to cybersecurity experts, as well as other careers that comprise the field of information security. Whether seeking a career in the emerging field of cybersecurity or learning to defend their own personal data or a company's data, students in PLTW Cybersecurity establish an ethical code of conduct while learning to defend data in today's complex cyberworld.



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When I first started, I didn't know what a computer scientist looked like. I didn't know what someone in the industry could do. How did you get there? What did that job look like? PLTW really gave me that insight into, 'Here's a job path for you; here's how to get there.' PLTW showed me that path that I had no basis for before."

Jacob KinseyPLTW Alumnus

# **ASSESSMENTS**

PLTW offers a first-of-its-kind summative assessment that measures both subject-matter knowledge and mastery of in-demand, transportable skills. In a rapidly changing economy, students with indemand, transportable skills – including problem solving, critical and creative thinking, collaboration, communication, and ethical reasoning – are most likely to thrive throughout their education and careers. PLTW's Assessments are designed to mirror the transformative learning experience with results that impact your student's future.

Learn more at pltw.org or access our White Paper.

# PROFESSIONAL DEVELOPMENT

PLTW Core Training is a learning experience that incorporates authentic, meaningful, and best-inclass facilitation practices that ensure the quality delivery of course content. All participants will interact and learn together in an environment that offers increased flexibility in the training format, expanded resources, exciting networking opportunities, and the engaging high-quality course content that teachers expect from PLTW. PLTW's Core Training supports and empowers teachers from diverse backgrounds to successfully facilitate the courses.

Learn more on pltw.org



pltw.org

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