



PROJECT LEAD THE WAY

PLTW

Our Duty to Prepare Students to Thrive

The Case for PreK-12
Computer Science Programs

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**PLTW Master Teacher:
Gateway App Creators, Innovators and Makers**



Select three words that you would use to define computer science:

Should every kid learn to love computer science?

Related



Computers, not excuses [Editorial]

of college degrees in 2015. Just 18 percent of these degrees went to women, 4 percent to African Americans and 8.4 percent to Hispanics.

According to the Bureau of Labor Statistics, 45 percent of all jobs in science, technology, engineering and mathematics are now in computer science and information technology. The need for computer science and computational thinking skills is becoming pervasive **not just in the world of software engineers**, but in fields as varied as finance, design, marketing and public policy. Yet, **computing accounted for only 3 percent**

Computer Science Gives Students Vital 21st Century Skills

These skills strengthen local community, national innovation, and opportunities for youth. Computer Science - not computer literacy - underlies most innovation today, from biotechnology to cinematography to national security. Yet the majority of U.S. schools require only that students use computers. Seldom do schools prepare students to innovate and create the new technologies that drive local and national economies. This ability to innovate with technology is also important for students' future success and ability to make a difference in a global society.







PLTW Computer Science



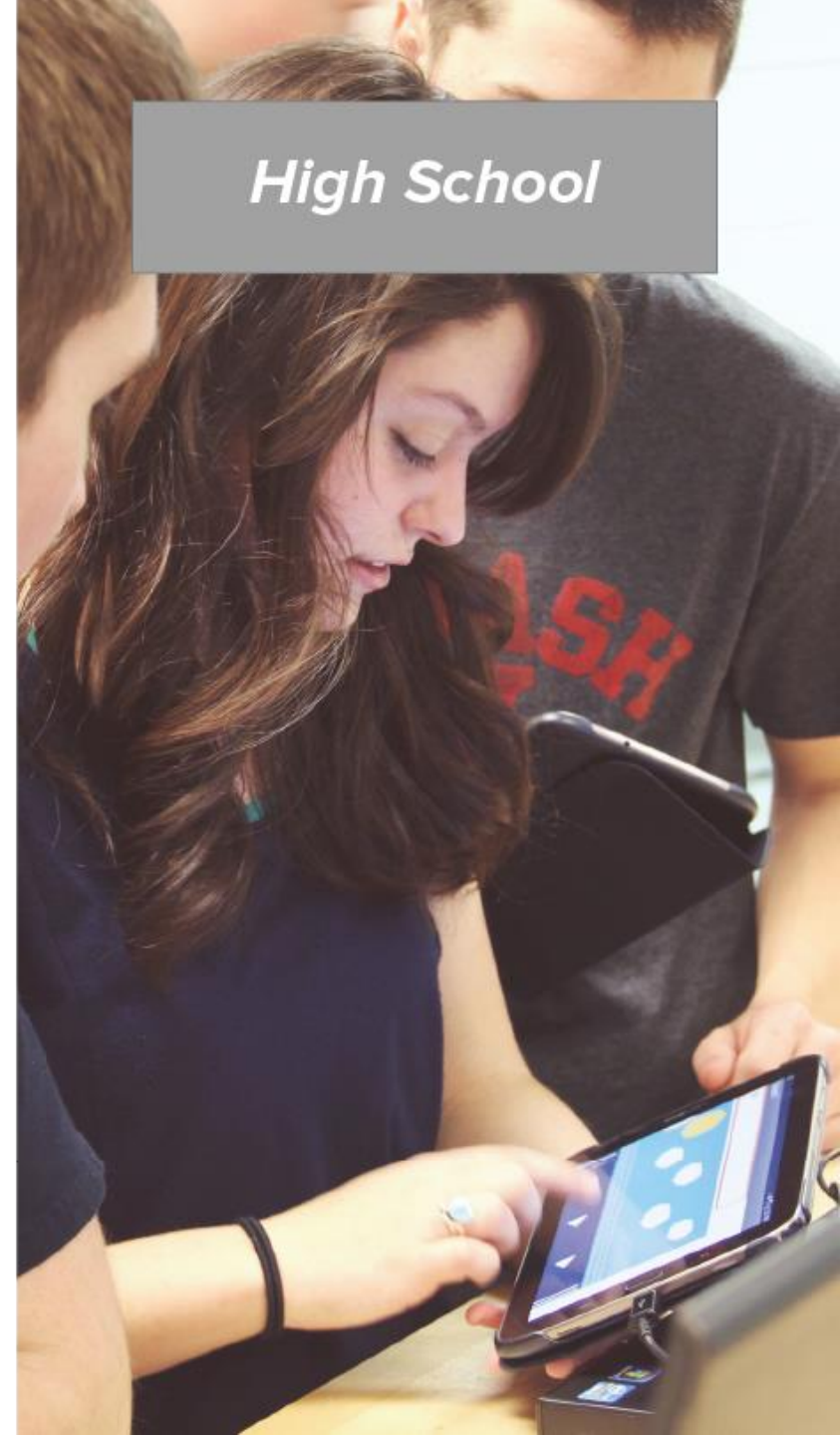
Elementary School



Middle School



High School



Vertical alignment is the organization of curriculum from one grade level or content area to the next to support students' progressive development of skills and knowledge over time.

Elementary

Visual programming

Students are introduced to fundamental concepts of computer science in an engaging and approachable manner.



Middle school

Block programming

Students dive deeper to solve real-world problems that matter to them by applying computer science principles.



High school

Text-based programming

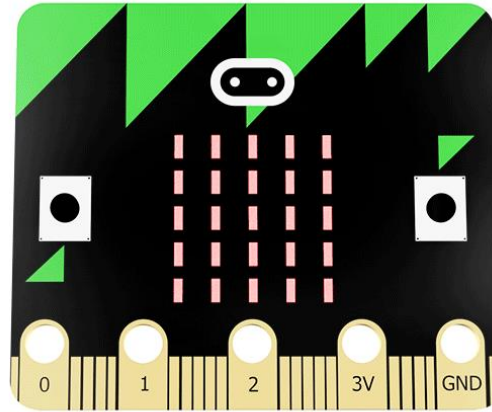
Students unlock the power of text-based programming to solve relevant problems.



Engaging. Inspiring. Empowering.



PreK-Launch

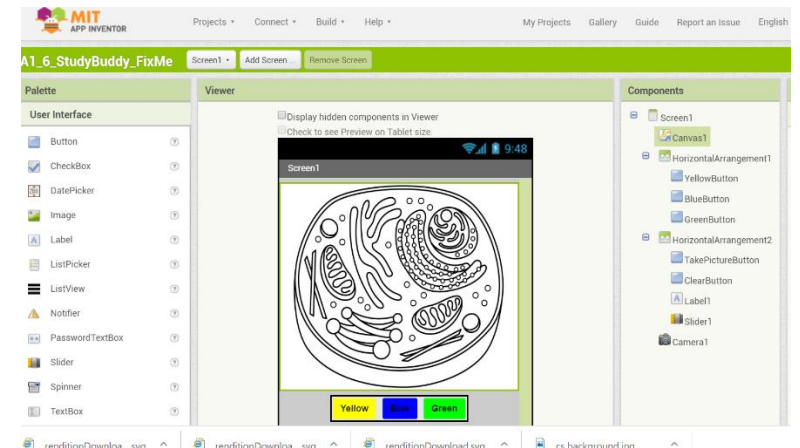
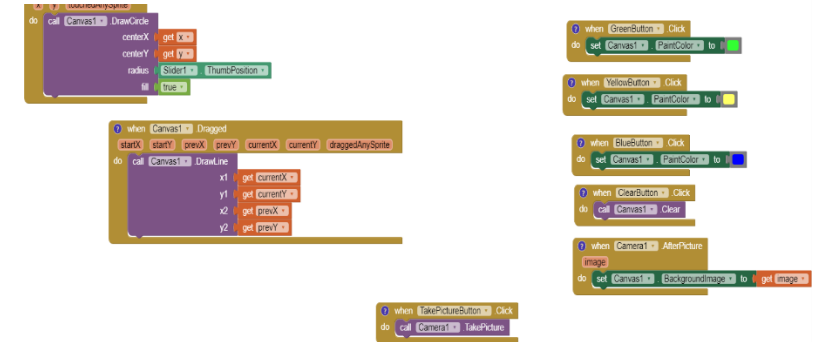


Gateway

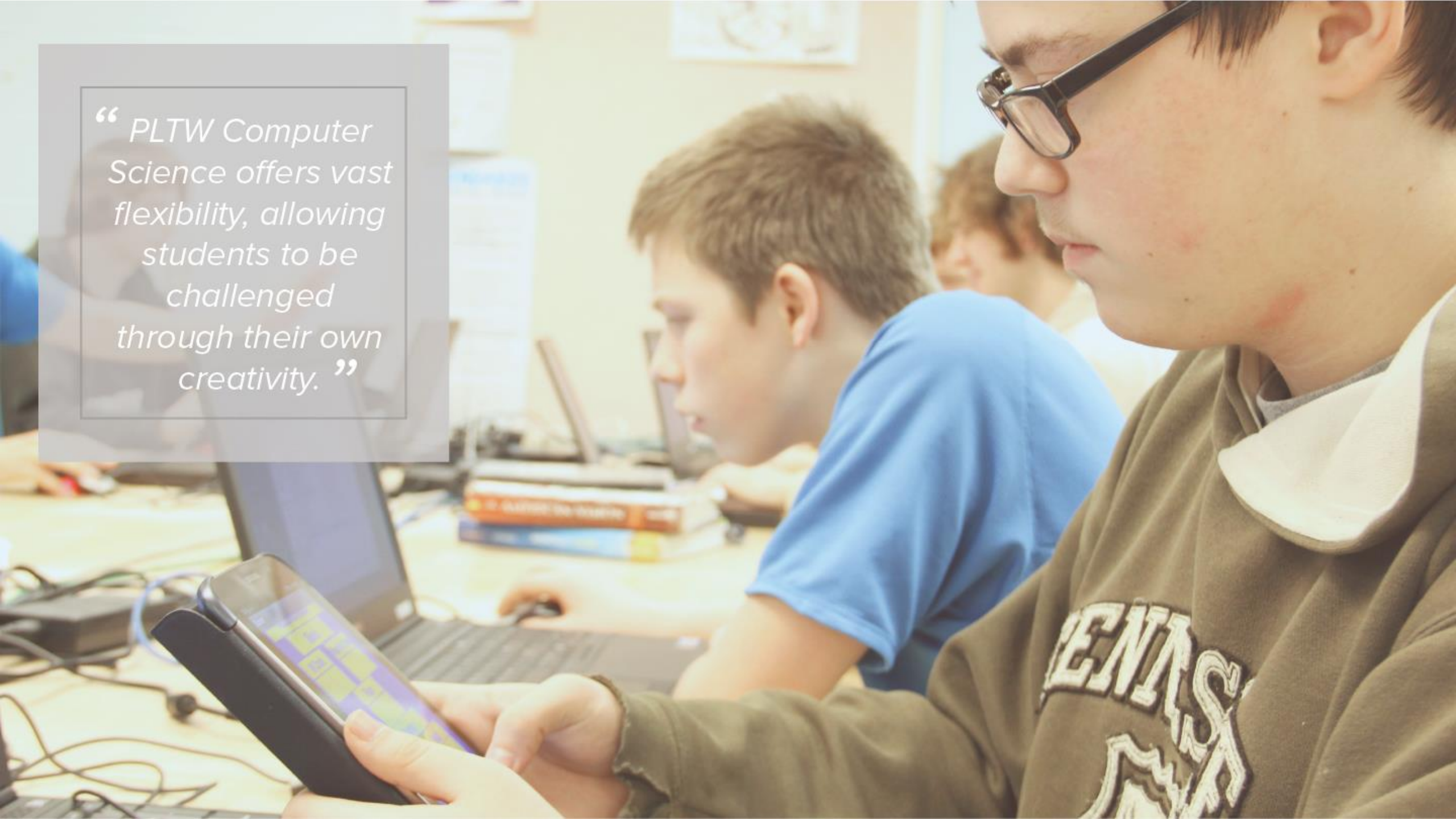
Spatial Sense and Coding



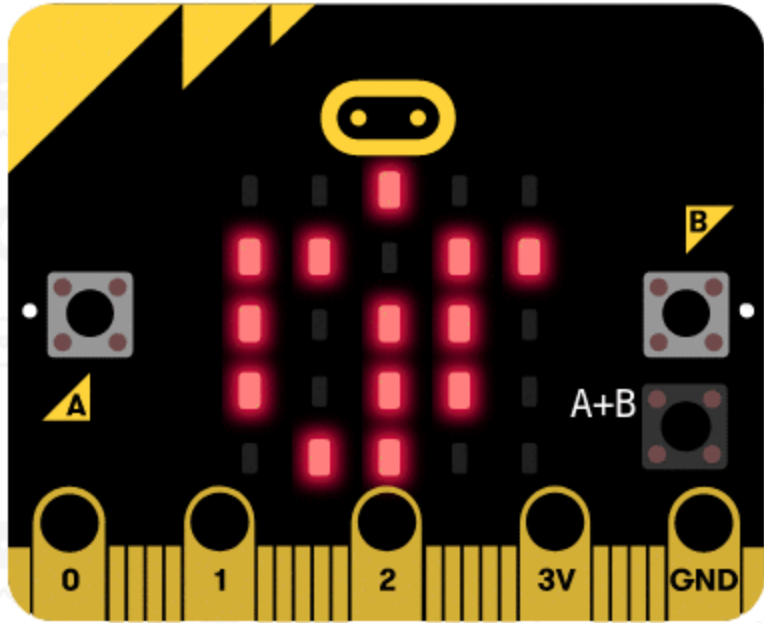
Rosie's Runtime



“ PLTW Computer Science offers vast flexibility, allowing students to be challenged through their own creativity. ”



Let's try it!



Programming Micro bits!



Flashing Heart



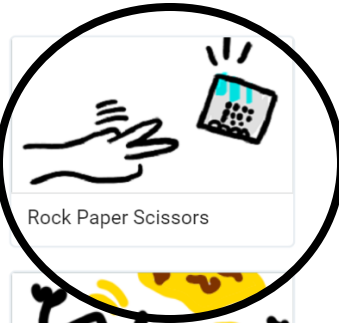
Smiley Buttons



Coin Flipper



Love Meter



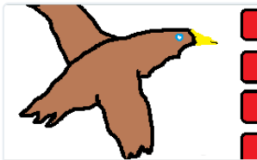
Rock Paper Scissors



Magic Button Trick



Salute!



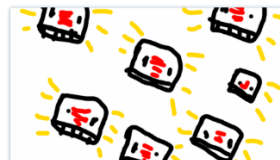
Crashy Bird



Mood Radio



Tele-potato



Fireflies



Infection



Hot or Cold



Voting Machine



Rock Paper Scissors Teams

<https://makecode.microbit.org/>



PLTW Computer Science Courses

PLTW Computer Science Overview

- Computer Science Essentials
- Computer Science Principles (AP CSP)
- Computer Science A (AP CSA)
- Cybersecurity – *Full release available Fall 2019*



PLTW is recognized by the College Board as an endorsed provider of curriculum and professional development for AP® Computer Science Principles (AP CSP).





Making a Difference

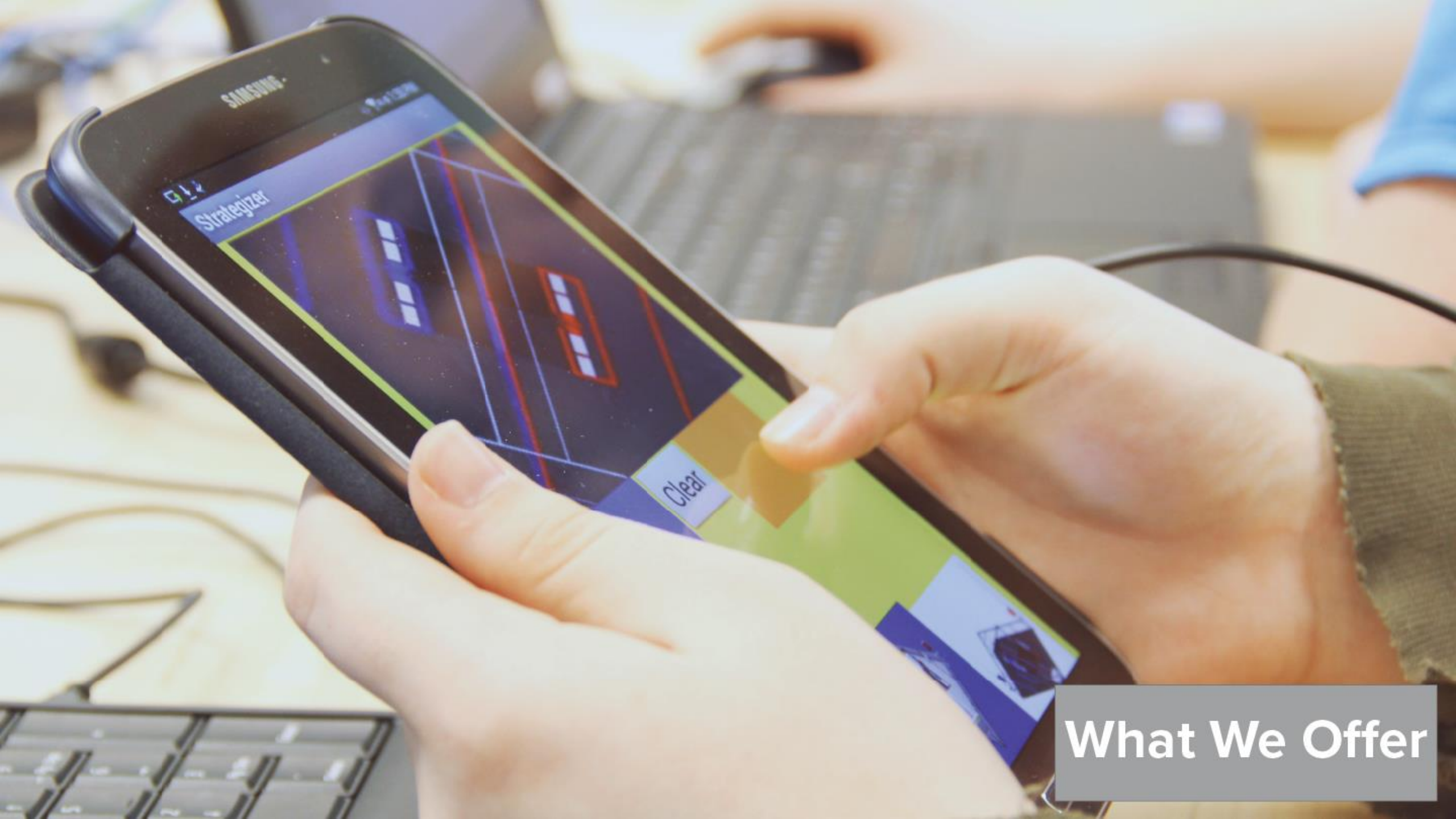


Professional Development

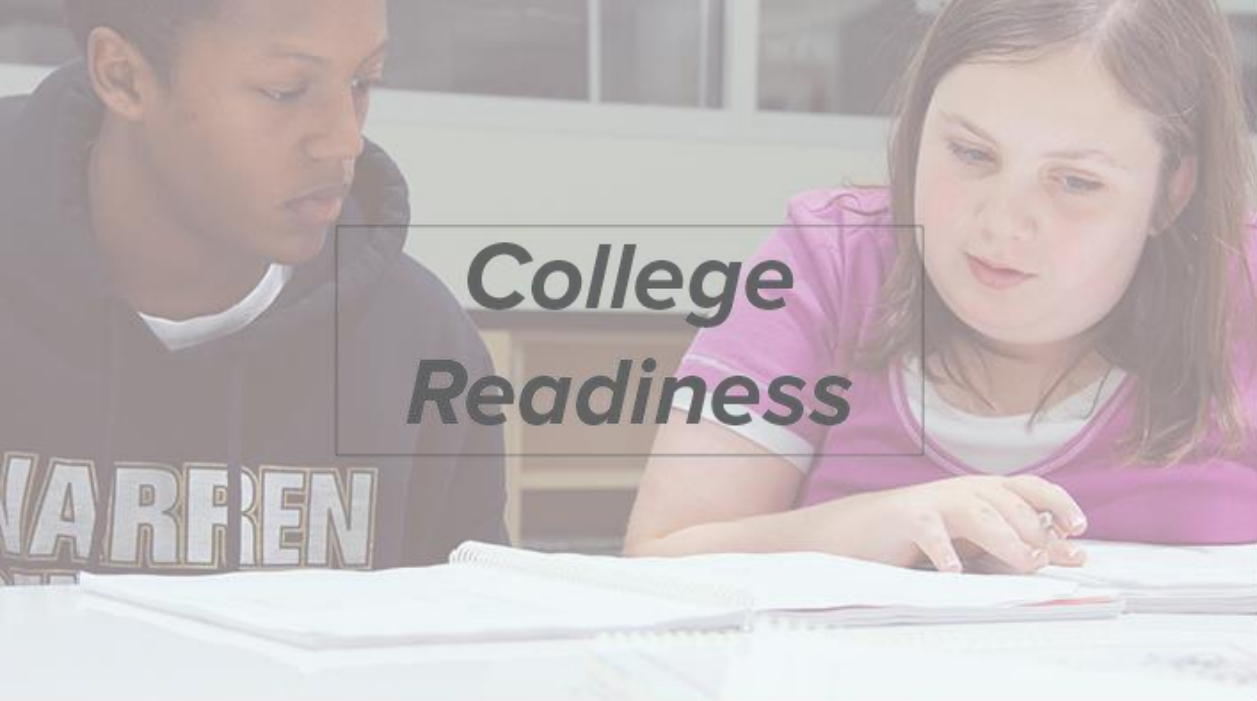


“Not only does the curriculum promote conversation around industry headlines, it also exposes students to computer science careers that they didn’t know existed.”





What We Offer



**College
Readiness**



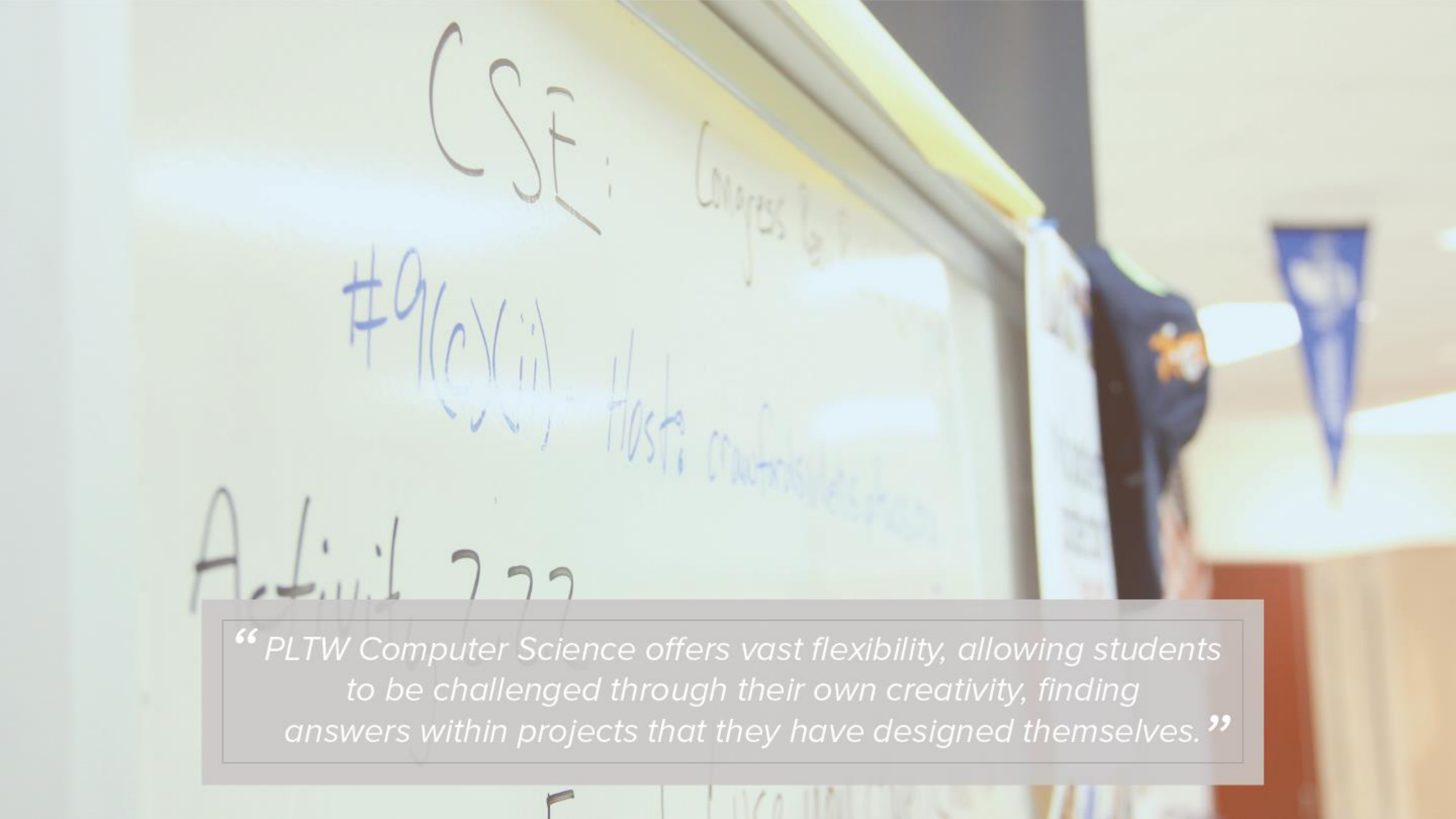
AP + PLTW



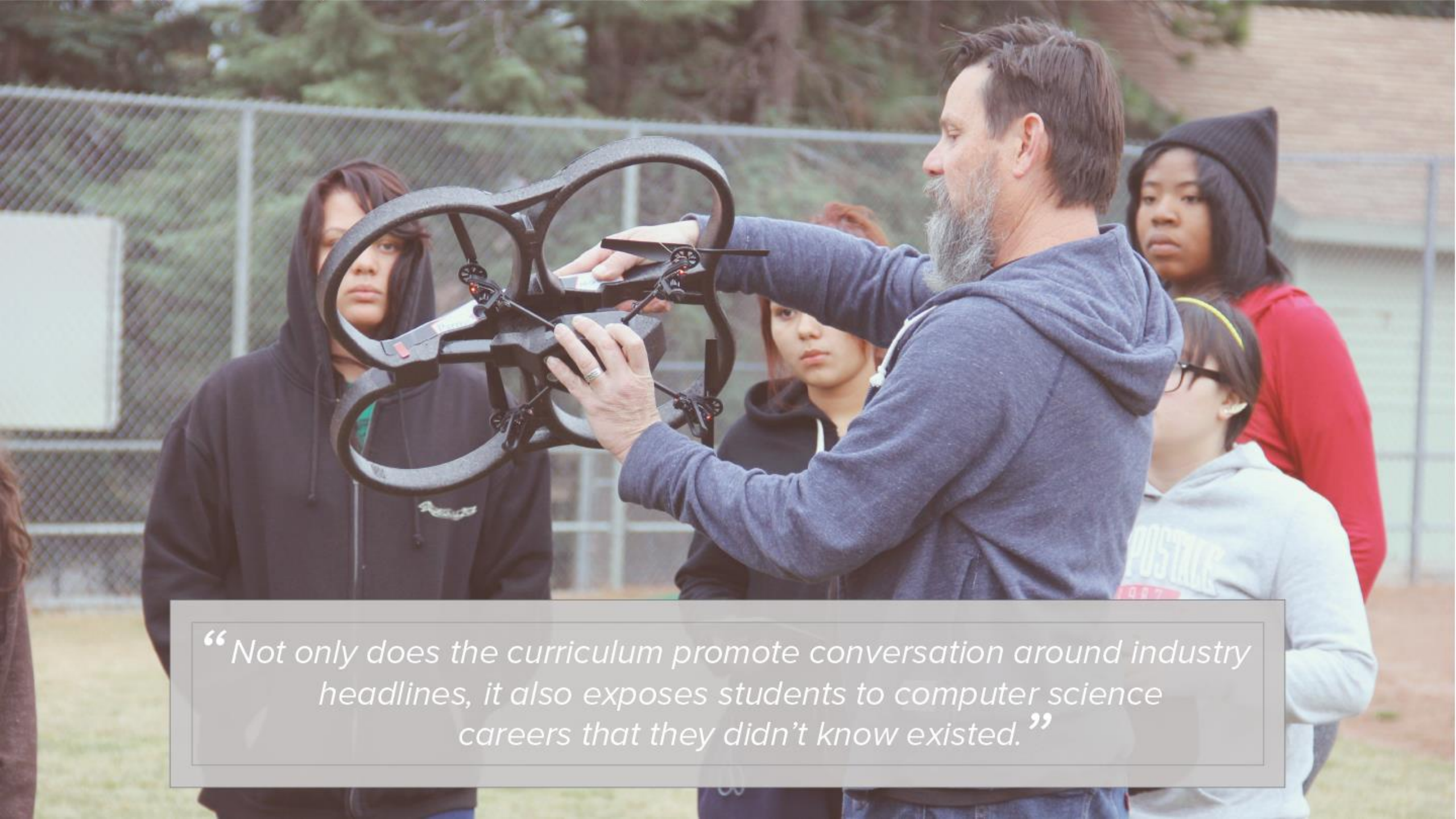
**STEM
Premier**



**Career
Opportunities**

A whiteboard with handwritten notes in a classroom setting. The notes include 'CSF: Congress', '#9(CXII) Host: Crawford', and 'Activit 222'. A quote is overlaid on the bottom of the whiteboard.

“PLTW Computer Science offers vast flexibility, allowing students to be challenged through their own creativity, finding answers within projects that they have designed themselves.”



“Not only does the curriculum promote conversation around industry headlines, it also exposes students to computer science careers that they didn’t know existed.”



Thank You