partnerships@helloworldcs.org
361.549.0516
www.helloworldcs.org

HELLO WORLD CS

Computer science learning that transforms the way students view the world. And themselves.

Hello World programs are designed to be an all-in-one, turn-key solution for schools and networks aspiring to build an innovative, world-class computer science program across 1st-12th grades. Courses are aligned to the CSTA and College Board's framework for AP CS A and AP CS Principles. Courses build upon a shared core of complex, interconnected computer science concepts that set students up for a spiraled, seamless, and comprehensive learning experience.

Key Program Features

Interdisciplinary

Harnessing the power of computer science to deepen understanding across diverse fields of study, including the humanities, mathematics, natural sciences, and the arts.

Cutting Edge Courses

Immersive learning experiences at the forefront of technological advancement that builds 21st century knowledge, including AI, data science, and virtual reality.

Problem Based Learning

Students learn to invite challenges and celebrate complexity by approaching problems with curiosity and computational thinking.

TEKS Aligned

Curriculum that reinforces CSTA and core subjects learning standards at every level, providing educators with a resource for both intervention and enrichment.

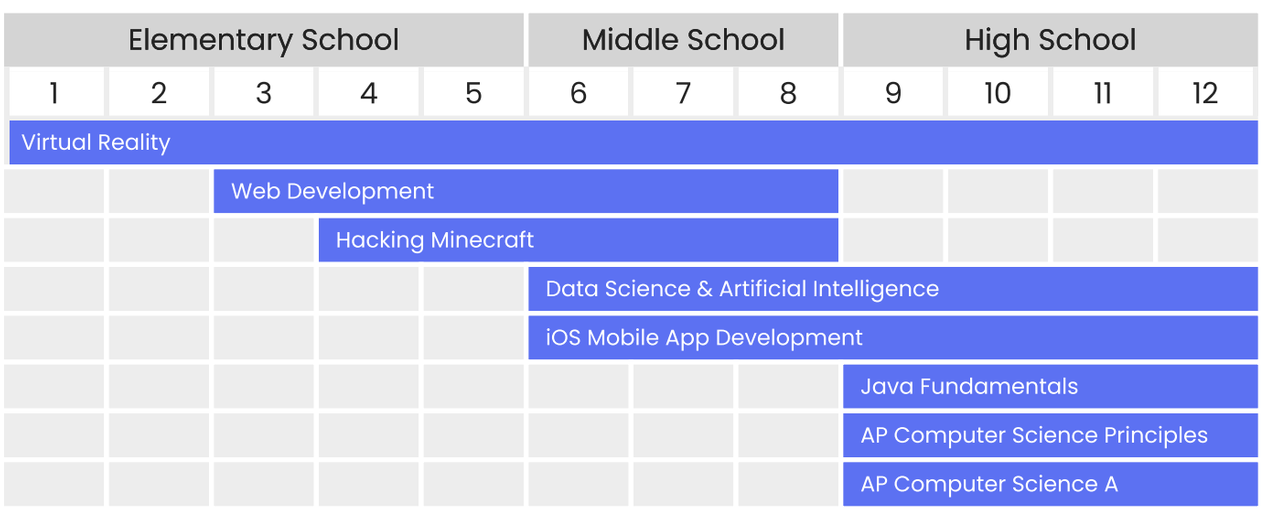
Ethics and Society

Students critically examine social inequities and ethical dilemmas, and develop reasoning and leadership skills that prepare them to work towards a more just world.

Turnkey

A self-paced learning platform designed for easy implementation, 100% student engagement, minimal teacher prep, and seamless student performance tracking.

Curriculum Pathway



www.helloworldcs.org

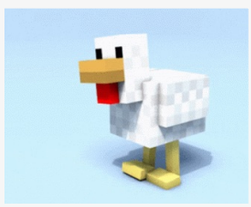
Computer Science Courses

Virtual Reality | Grades 1st-12th

Students utilize the CoSpaces development engine and learn computer science through virtual reality programming. Students build 3D worlds while experimenting with animations, collision detection, particle systems, and physics. Students play and test simulations with peers and complete projects centered on individual areas of interest such as building a virtual pet, rock band, or Moon base gravity lab.

Web Development | Grades 3rd-8th

Students develop website templates in HTML, use JavaScript to make their websites dynamic and interactive, and apply CSS properties to make them attractive and modern. Advanced students learn how to track and use data to make websites more purposeful and tackle programming algorithms. Students build projects such as a pet adoption website, party invitation card, photo album, and online store.



Hacking Minecraft | Grades 4th-8th

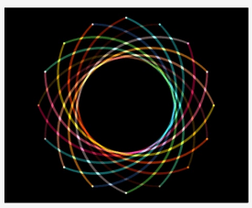
Students become Minecraft hackers by manipulating and extending Minecraft's functionality and building previously unimaginable 3D worlds. Unique to this course is students' ability to join one another's virtual worlds and play the games they've built together in real-time. Students complete projects such as spawning mobs, building teleporters, and simulating live multiplayer games like capture-the-flag.

Data Science & Artificial Intelligence | Grades 6th-12th

Students learn the fundamentals of data science and Python programming while working to solve real world challenges. As students progress to advanced levels, they are introduced to the concepts, methods, and theoretical foundations of machine learning and artificial intelligence. Students build projects such as a chatbot, web crawler, password hacker, trivia quiz, and speech teleprompter.

iOS Mobile App Development | Grades 6th-12th

Students gain familiarity with standard iOS development tools such as Xcode, Interface Builder, and the iOS Simulator, and are able to test and publish their apps in the Apple App Store. Students build many applications in the Swift programming language such as a DJ booth app, meme generator, AR drum machine, and a choose-your-own-adventure game, and an exercise app using augmented reality.



AP Computer Science Principles | Grades 9th-12th

This course is aligned to the College Board's course framework for the AP Computer Science Principles course and prepares students for the AP CS Principles exam. Students utilize virtual reality programming to learn course materials and build projects such as a chess game, animal farm, climate analysis lab, genetic modeling experiment, sustainable architecture model, and museum exhibit design.

AP Computer Science A | Grades 9th-12th

This course is aligned to the College Board's course framework for the AP Computer Science A course and prepares students for the AP CS A exam. Students learn to design and implement algorithms and data structures in Java to solve problems in a variety of application areas. Students build projects such as a natural language processing chatbot, image classifier, weather predictor, and message decoder.