

Computer Science Principles (CSP) Syllabus

Course Description

Computer Science Principles is a year-long, beginner-friendly course that introduces students to the foundations of computer science. Students will learn through hands-on activities, problem-solving, coding, and teamwork.

This course uses **Code.org** and **App Lab** to teach programming concepts and help students understand how computer science impacts the world around us.

What Students Will Learn

Throughout the course, students will explore:

- The Internet and how information travels
- Data and how computers represent text, images, and sound
- Problem-solving and computational thinking
- Algorithms and abstraction
- JavaScript programming using Code.org's App Lab
- Variables, conditionals, functions, and event-driven programming
- App design and user interfaces
- Cybersecurity and encryption
- Data ethics and the impact of technology on society

Course Philosophy

This class is designed to be hands-on and interactive. Students will learn by:

- Exploring and solving problems
- Writing and testing code
- Working independently and with classmates
- Creating programs and applications
- Thinking critically about technology and its impact on society

No prior computer science or coding experience is required.

Grading

Student grades will be based on the following categories:

Category	Grade Weight
Class Work	1 × 100
Assessments	2 × 100
Projects	3 × 100

Projects carry the greatest weight because they allow students to demonstrate their understanding by applying what they have learned.

Programming Platform

Students will primarily use **Code.org's App Lab** to learn JavaScript and develop interactive programs and applications.

Final Project / POL

During the final **two weeks of the course**, students will complete their **Project of Learning (POL)**.

Each student will design and code their **own original app using Code.org**. The final project will give students the opportunity to apply the programming, problem-solving, design, and computer science skills they have learned throughout the course.