

Course Name: Computer Science Essentials - PLTW

Duration: 1 Semester Full Year

Grade Level: 9th 10th 11th 12th (check all that apply)

Are there any prerequisites for the course?

None

WHAT this course is about:

Exploring Computer Science is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics. The course focuses on the conceptual ideas of computing and helps students understand why certain tools or languages might be utilized to solve particular problems. The goal of Exploring Computer Science is to develop in students the computational thinking practices of algorithm development, problem solving, and programming within the context of problems that are relevant to the lives of today's students. Students will also be introduced to topics such as artificial intelligence, web development, programming, and physical computing.

WHY take this course:

Have you ever wanted to code but did not know where to start? This is the class for you. You can take this class with little to zero experience in the coding world and not feel overwhelmed.

This class counts for either:

- CTE Credit
- General Elective Credit

WHAT you'll learn:

You will learn how to code in:

- Java Script
- HTML
- CSS
- Block
- Python
- Turtle Coding
- And recently added: Artificial Intelligence

WHAT you'll do:

In Exploring Computer Science, you will:

- Create Websites with HTML & CSS

- Build video games using Java Script and Block coding
- Create elaborate coding using Python
- Design and code our robots using Turtle Coding

WHERE this could take you:

Nearly every business in the world is now using Coding to some extent. It is constantly growing and changing every year. You could work for large companies like Amazon, Microsoft, Disney or Boeing. You could also start your own company or work as an independent contractor. A lot of these jobs are “Work from Home” jobs too.

The real question is...where cannot it not take you?