

6th Grade Computer Science

2022 - 2023

Welcome to the wonderful world of 6th grade Computer Science at Creo College Prep! We have a exciting year ahead of us as we use science and engineering practices to explore the programming languages Scratch, HTML, and ending with a unit on robotics. We have high expectations for our students and believe that every student can achieve these expectations with the support of their family and their teachers. By the end of this year students will not only be prepared for success in future Computer Science classes, but will also understand the importance of Computer Science and how it plays a part in everything that occurs in our lives!

Course Year Overview

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Unit	Topic	When will we cover this unit?	
Unit 1	Review Programming w/ Scratch ■ Scratch is a computer programming language that makes it easy and fun to create interactive stories, games, and animations and share them online.	September - October	
Unit 2	Crash Course/ Review ☐ In this unit we will be working with Scratch to code our very own dance parties, really putting our knowledge to the test.	November	
Unit 3	Touch Typing Olympics ➤ Touch typing is all about the idea that each finger has its own space on the keyboard. Students will learn how to type without looking at the keys.	December - January	
Unit 4	Web Design: Intro to HTML & CSS ➤ HTML is the language for describing the structure of Web pages. HTML gives students the ability to publish online documents with headings, text, tables, lists, photos, and many other features.	February - April	
<u>Unit 5</u>	Robotics Robots are often used to perform tasks done traditionally by human beings. Robots are widely used in such industries as automobile manufacture to perform simple repetitive tasks, and	April - June	





in industries where work must be performed in environments hazardous to humans. We will be coding our own robots this year.

Mastering Standards:

Based on a multi-year pilot at the New York City Department of Education, this course begins students' formal computer science education. Students learn to write, test, and debug code in a variety of programming languages. They gain familiarity with creating and analyzing algorithms to solve problems, and identifying and solving problems using logic and their knowledge of technology. Topics covered include programming, design, and robotics. Students will create projects that connect to their learning in other core classes.

Homework:

Homework assignments will be given twice per week and should take no more than 15 minutes to complete. Each assignment will be graded for accuracy and completion.

Contact Information: Ms. Thomas

Email: <u>sthomas@creoprep.org</u> **Phone**: +1 (516) 591-0616 **Hours:** 7:00 am - 4:30 pm