

AP Computer Science A

Summer Assignment 2019

Future APCS Student,

Welcome to APCS! I am eagerly anticipating a great year of Computer Science A. In order to ensure the best start for everyone next year, you will have to complete work this summer.

Computer science is all about solving real-world problems. It's been around for years, but it's becoming more important than ever in today's world where technology is ubiquitous. Roller coasters, elevators, traffic signals, and even refrigerators: technology is everywhere. Now more than ever, we now need a basic knowledge of computer science just to understand the world around us.

But what is computer science? Is it simply being able to use a computer? Or write code?

In this course, we use the definition, "Computer science is the study of how we use computers to solve human problems." This definition focuses on the problem solving aspect of computer science. One major theme of AP Computer Science, and really CS in general, is problem solving. It's about developing solutions that can scale up from simple problems to complex problems. On the AP CS A exam, you will be using the programming language Java to solve problems, design strategies, debug, and analyze potential solutions.

Any AP course is challenging and AP Computer Science is no exception. Even if you have programming experience or like to code for fun, you will still be challenged in AP Computer Science. However, don't be discouraged if you know absolutely nothing about programming or computer science in general. This course was designed for students new to computer science. We will begin with the basic building blocks of programming in Java. By the end of the course, you will use Java to solve some pretty complex problems!

Your summer assignment includes 2 total assignments. In order to complete these assignments, you must create an account at the free site:

https://runestone.academy/runestone/default/user/login?_next=/runestone/default/index

Use the course name: JTHS_CSA

- 1) Look at assignments:
<https://runestone.academy/runestone/assignments/chooseAssignment.html>
- 2) Complete ALL activities in the Java Basics: Classes & Objects sections (get green checks)
- 3) Complete ALL activities in the Variables sections (get green checks)
- 4) Be prepared to show and discuss in class

I HIGHLY recommend that you spread out the assignments over the summer. Please do not try to complete it all in the final week of August.

Have a great summer!!

Ms. Mannerberg
amannerberg@jefftwp.org