

Mr. Johnson

Dear AP Computer Science Principles Students,

Welcome, AP Teachers! AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles also gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem solving. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

We look forward to working with you this fall, and we want to remind you that there are assignments due the first day of school.

Summer Assignment: Impact of Computing Innovations

Overview

Computing innovations impact our lives in ways that require considerable study and reflection for us to fully understand them. In this assignment, you will explore a computing innovation of your choice. A computing innovation is an innovation that includes a computer or program code as an integral part of its functionality. Your close examination of this computing innovation will deepen your understanding of computer science principles.

You will write a research paper to present your findings.

General Requirements

This assignment requires you to:

- analyze a computing innovation impact on society, economy, or culture and explain how this impact could be beneficial and/or harmful;
- explain how a computing innovation consumes, produces, or transforms data; and
- describe how data storage, data privacy, or data security concerns are raised based on the capabilities of the computing innovation.

You are also required to:

- investigate your computing innovation using a variety of sources (e.g., print, online, expert interviews);
- provide in-text citations of at least three different sources that helped you create your computational artifact and/or formulate your written responses;
 - At least two of the sources must be available online or in print; your third source may be either online, in print, or a personal interview with an expert on the computing innovation.
 - At least two of the sources must have been created after the end of the previous academic year.