

Welcome to AP Computer Science Principles

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Assignment Due: First Day of the 25- 26 SY

Introduction

AP Computer Science Principles (AP CSP) is a full-year, rigorous course that introduces students to the foundational concepts of computer science and explores the impact computing and technology have on our society. The course covers a broad range of foundational topics, including: programming, algorithms, the Internet, big data, digital privacy and security, and the societal impacts of computing.

Writing Assignment: Exploring the World of Computer Science

Title: *"The Power of Programming: My Journey Into Computer Science"*

Objective:

Students will demonstrate an understanding of foundational computer science concepts by composing a multi-paragraph, reflective essay that defines key terms, evaluates the role of computer science in the world, and considers their own interests, goals, and inspirations in the field.

Assignment Prompt:

Write a **well-organized, 3–5 page essay** that explores the field of computer science through both an **informative** and **personal lens**. Your essay should respond thoughtfully to the following **guiding questions**. You are encouraged to weave your responses together into a cohesive narrative rather than answering each question separately.

Vocabulary

1. **Computer science:** the study of the ideas, ways of thinking, languages, software, and hardware needed to solve problems with computers.
 2. **Imagination Age:** a theoretical period beyond the information age where creativity and imagination will become the primary creators of economic value.
 3. **Information Age:** a shift in human history from traditional industry to an economy based on information computerization using analysis and thinking - AKA: Digital Age
 4. **Program:** a systematic plan or sequence of instructions for a computer to solve a problem.
 5. **Programming:** the action or process of writing computer programs.
 6. **Computational thinking:** understanding the logic and processes computers use to solve problems and run programs.
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 Guiding Questions (to be integrated into the essay):

- What is a **program**? What is **programming**?
- Who **programs**, and **why** do people choose to program?
- What is **computational thinking**, and why is it important in problem-solving?
- What is a **computational artifact**, and what are some examples?
- How would you define **computer science** in your own words?
- What is a **computer scientist**, and what kind of work do they do? Do you know any personally?
- Why are **you** interested in learning more about computer science?
- Do you have any **previous experience** with coding or technology? If so, describe it.

- What types of **programs** or projects would you like to create during this course or in the future?
 - How have you seen **computer science impact the world** around you?
 - Reflect on something from a **video, quote, or class discussion** that inspired you or shifted your perspective on computer science.
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Requirements:

- Minimum **3-5 pages single-spaced**
 - Clearly written **introduction, body paragraphs**, and a **conclusion**
 - Use at least **five of the guiding questions** in depth
 - Define at least **three key vocabulary terms** from the prompt in your own words
 - Provide **specific examples** from personal experience, class content, or real-world events
 - Demonstrate **clarity, structure**, and **original thought**
 - Use an **academic tone** and proper grammar
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Suggestions for Success:

- Start with a hook: share a moment or idea that first sparked your interest in technology or problem-solving.
- Use transitions to connect your ideas smoothly.

- Conclude with a vision: What do you hope to learn or create in the future as a computer scientist?
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