Curriculum Map: Computer Science

THE KING'S ACADEMY
Emmanuel Schools Foundation

The world is advancing every day and Computer Science is at the forefront of developments to our society. Our curriculum equips students with the essential knowledge to stay safe and to explore a broad range of ways computer science contributes to our day-to-day lives.

NEA/coursework deadline

Academy Exam

Other assessment

Unit Link

Year 11

- What is the purpose of systems and applications software?
- How are networks constructed using hardware and software?
- What are the treats to networks and how do we prevent them?
- What are the legal and ethical impacts of computer science on society?

Exams

Year 10

- How and why do computers use binary to represent data?
- How do computers search and sort data using algorithms?
- What are the components of a CPU and what is an embedded system?
- What is defensive design and how do we protect our programs from malicious attacks?
- What is the purpose of primary and secondary memory?
- What are the types of programming language?

Work Experience

Year 9

- How can we apply advanced programming techniques in text-based programming?
- How can we use scripting languages to create a website?
- How can we use physical computing to solve real-world problems?
- How do we manage an operating system through a command line interface?
- How can we use programming to develop 'mods' for Minecraft?

Year 8

- How can we apply our programming knowledge to a text-based language?
- What productivity skills will set us up for success in our studies and careers?
- What are the threats to our cyber security and how do we prevent them?
- How can we combine computer hardware to create different types of network?
- What is AI and what are the potential impacts to society?

Year 7

- How are real-world problems solved using computing?
- What is a spreadsheet and how can they be used to analyse data?
- What is hardware and software and how do they form the make-up of a PC?
- How can we use computational thinking and block-based programming to build a game?
- What are the basic principles of using a PC?