

Curriculum Intent

Curriculum Vision | Computer Science

All students at NKS should be responsible digital citizens armed with the skills and knowledge that will equip them for life in the 21st Century. In studying a broad range of topics and activities, using innovative learning tools, we aim for our students to be confident to use technology throughout their lives and beyond.

All students

- *should have a broad understanding of computer systems and technology in its use in real life, including how computer systems affect the environment and culture within society, and awareness of legal and ethical considerations;*
- *evaluate developments in the subject, including future developments such as AI and machine learning*
- *should have a comprehensive knowledge of how computer systems work and connect together;*
- *should understand algorithms used in the real world and be able to plan and develop their own algorithms to solve real life problems;*
- *should have a passion for using technology to improve their personal, social and working life.*

Successful navigation of the subject within the world

- Our Computing curriculum aims to equip our students with, for example, the knowledge and skills to be able to use computing technology to support their professional and personal life.
- We aim to provide students with the passion to want to seek out and explore new technologies as they are discovered, and explore beyond the experiences provided within the classroom
- We aim to provide open tasks in lessons that encourage students to take a creative approach to their learning, feeling the freedom to explore their own ideas.

COMPUTER SCIENCE



Key Stage 5

GCE CS students will pursue advanced aspects of number, networking, programming, algorithms, systems architecture. They prepare for application to degrees in CS and IT.

Key Stage 4

GCSE students extend their basics from KS3 to build sophisticated knowledge of computing systems and how they operate in the real world, as well as being able to solve real problems using algorithms

Key Stage 3

From knowledge of the basics of programming from KS1-2, students develop their terminology to describe algorithms, networks, searching and sorting. They program in visual as well as textual languages, applied to web based and physical computing scenarios..

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