ALL SAINTS
Sixth Form College
at The Academy of St Nicholas

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COMPUTING

What is this course about:

The Extended Certificate is for students who are interested in learning about the computing sector alongside other fields of study, with a view to progressing to a wide range of higher education courses, not necessarily in computing-related subjects.

Through this qualification, students can develop:

- The capacity to think creatively, innovatively, analytically, logically and critically.
- An understanding of the organisation of computer systems.
- The ability to apply skills, knowledge and understanding of computing, including programming, in a range of contexts to solve problems.
- The capacity to see relationships between different aspects of the subject.
- An understanding of the consequences of using computers, an awareness of emerging technologies, and an appreciation of their potential impact on society.

What you will study:

The qualification covers the following topic areas:
Programming Fundamentals – Computing concepts and their application through programming and design methodologies.
Computer Network Security and Encryption – Types and origins of security threats, relevant regulations, methods and tools to detect and prevent threats, and concepts and algorithms of encryption.
Human-Computer Interaction – User experience (UX) and user interface (UI) design principles and their application in creating interfaces; key principles of HCI design, including meeting diverse needs of users.
Practical Programming – Principles of computer science related to software development and their application in developing and managing a software solution.

How you will be assessed:

Students are required to sit a combination of external examinations and coursework which is marked internally and externally moderated.

What will it prepare you for:

This qualification can lead to a range of careers such as:

- Software engineer
- Web developer
- Games developer
- Games testing
- App developer
- Cybersecurity
- Artificial intelligence
- Robotics
- Hardware engineer
- Data scientist