Computing Curriculum Statement

In line with our whole school curriculum statement, Saint Aidan's is a Church of England High School with an inclusive Christian ethos. Our vision is:

- We **aspire** to be a school where life is lived in "all its fullness" (John 10:10).
- We **believe** in the God-given potential of every one of our students.
- We **succeed** by working together as a school where all can thrive and where excellence is valued.

As a result, the Computing curriculum is designed to match this vision, whether in formal lessons or in the wider experience of students.

Aims: Through the teaching of Computing at Saint Aidan's we aim:

- to develop students into independent, competent and capable computational thinkers with the skill set to solve a wide range of problems computer based and applicable to situations in other areas of the curriculum and their lives
- provide exposure and develop competence in a range of different programming environments, both visual and text based, including a range of languages
- to provide students with opportunities to explore and develop a greater understanding of how the digital elements of their lives, studies and tools are developed and created and to be safe, considerate and critically aware users of technology
- to stimulate, develop and maintain students' curiosity, interest and enjoyment in Computing and technology
- to promote a variety of Computing teaching and learning methods (including investigative work) to raise the achievement of students working individually, in pairs or in groups
- to provide continuity and progression from KS2, through KS3 and KS4 and prepare students for Computer Science and/or other IT based pathways at KS5 or for life and work outside of education

Objectives: By the end of their Computing education at Saint Aidan's all students should be able:

- to solve computational problems, communicating their solutions through clear and logical reasoning both in finished coded solutions and on paper
- to approach a variety of problems and tasks systematically, choosing the appropriate techniques or strategies independently or through collaboration
- to explain the importance of testing and refining solutions to ensure robustness
- to follow a brief and create a range of finished products or solutions which are suitable for a client, product or concept independently developing and refining ideas to realise their creative intentions
- to obtain the highest Computer Science GCSE grade that they are capable of
- to be able to perform and understand the IT based skills required for entry into higher or further education or whatever is needed in their chosen careers

Key Stage 3

The content within each year is designed to visit, revisit and embed all the basics of computational thinking, computer use and computer mechanics. Thereby allowing students to make informed choices about further study at KS4, 5, and beyond. In 7, 8 & 9 setting allow work to be delivered according to ability.

Key Stage 4

Students are given the opportunity to study for the academic qualification of Computer Science at GCSE.

Assessment

Students work is assessed regularly through lesson-by-lesson quizzes, portfolios of project work and exam practice papers. Target setting in Computing is challenging at both Key Stages: at Key Stage 3 students are set a target range to allow students and parents to monitor their progress; at Key Stage 4 student's targets are then based on GCSE grades.

Beyond the formal Computing curriculum

Our students are given many opportunities to develop their use of computers and technology outside of the curriculum. These include Coding Club, Vex robotics, cybersecurity challenges and working with Lancaster University.