

## Curriculum intent – Computer Science

“Computer Science is no more about computers than astronomy is about telescopes.”

— *Edsger W. Dijkstra*

Within the Computer Science department at Highgate Wood School, we believe that having a powerful knowledge in computing is vital for the current technological world. We believe that all students should have the ability and confidence to think critically, deconstruct problems and develop a solid digital literacy skill set.

Students have opportunities throughout KS3 to use different programming languages and software to solve problems. Some key skills we embed are writing correct syntax, formulate algorithms for simple programs and debugging their programs. Key concepts such as abstraction, decomposition, selection, sequencing are introduced in year 7 and we use an iterative approach to revisit these concepts each year, which helps prepare students for KS4.

Students who take GCSE Computer Science or IT further develop the skills they have learnt during KS3. Both courses have a practical element which allows students to showcase their practical abilities. KS5 students have the opportunity to embark on a real world project. The theory content covered gives students the knowledge and understanding to enrol on higher education courses or apprenticeship such as game design, software engineering, security management and many more.

We are very proud of our results at Highgate Wood School. At GCSE, the computer science department achieved outstanding results. We had 44% 9-7, 81% 9-4 and 100% 9-1. Our A level results have seen on average over 60% of students achieve above a C grade, which gets them into some of the top universities and apprenticeships.

We run a number of trips, such as the annual Year 8 Microsoft DigiGirlz event. Extra-curricular activities include our computing building club, where students learn how to assemble a computer from scratch.