

## Our intent - Computer Science

The KS3 course begins with an acceptance of various starting points, and therefore focuses on a skills-based course to introduce the school systems alongside a short animation unit of work as a vessel to develop wider computer skills ready for learning. KS3 adopts a balance between core ICT skills and developing understanding of CS. This allows for a branching of abilities within the subject, allowing all an opportunity to thrive in their learning environment. Each year builds upon the last with the following threads: Programming theory and practice. Research skills. Creative media. Professional documentation and software. CS at NS offers greater rigor, depth and breadth than the National Curriculum. With regard to the aims of the NC, students clearly come away with an understanding of core ICT skills in addition to the CS requirements.

We follow the National Curriculum's lead on certain topics such as programming fundamentals and logic, the use of multiple applications to solve problems, and understanding the hardware and software used within the subject, as suggested by the NC. The core knowledge is checked through summative assessments on a termly basis, and this, combined with whole-class feedback, is used to ensure that checks in understanding of our curriculum is used effectively. The selection of the OCR GCSE Computer Science course has been selected due to the consistency and natural progression from topics covered at KS3.

## Curriculum Implementation and Impact - Computer Science

Students in Key Stage 3 develop a range of Computer Science and ICT skills. They begin by learning to manipulate code in programs like Scratch and improve their problem-solving skills with other online platforms, where they are introduced to computing concepts like "iteration" and continue to develop a basic understanding of the Python programming language. They also have a wide range of opportunities to develop their ICT skills using Microsoft Office programs and a variety of Animation and Graphics applications. Web development also features and a foundational understand of HTML and CSS is developed. This forms a solid foundation that can be carried forward into GCSE and beyond. A breakdown of each year can be found below.

Year 7	Year 8
Term 1 – Introduction to using the school network and staying safe online.	Term 1 – Digital marketing.
Term 2 – Research skills and evaluating online sources.	Term 2 – Research project into future technologies.
Term 3 – Scratch programming.	Term 3 – Game design.
Term 4 – Spreadsheets and modelling.	Term 4 – Introduction to Python programming.
Term 5 – Binary and logic.	Term 5 – HTML and web development.
Term 6 – Sequencing and programming concepts	Term 6 – Additional programming concepts