



Computing Curriculum Intent

Computer Science empowers students to understand, question and shape the digital world in which they live. By developing knowledge of computer systems, programming, networks, ethics in the digital world and cybersecurity, students gain the understanding needed to navigate an increasingly technological society with confidence, curiosity and responsibility. The subject inspires students to Imagine, Believe and Achieve by encouraging them to think creatively, solve complex problems and develop the resilience required to succeed in an ever-evolving technological world.

Computer Science makes a distinctive contribution to Hodgson Academy's curriculum by developing computational thinking, problem-solving and analytical reasoning. Students learn to break down complex problems, identify patterns, design and evaluate algorithms, and apply programming knowledge to create effective solutions. Alongside technical expertise, they develop an understanding of the impact of technology, enabling them to contribute positively to Modern Britain as informed, responsible and active digital citizens.

The curriculum is Knowledge-rich and carefully Sequenced to ensure that every student develops secure understanding over time. In Key Stage 3 computing, students establish strong foundations in computer systems, programming, networks, data representation, digital literacy and online safety. These core concepts are revisited and extended through increasingly challenging contexts so that knowledge is retained, connected and applied. At Key Stage 4, students deepen their understanding of computer architecture, algorithms, programming, cybersecurity and the wider impact of computing, developing the expertise required for further study and life beyond school.

Excellence for Every Learner is achieved through high expectations, ambitious curriculum design and equitable access to powerful knowledge. Carefully structured learning enables all students, regardless of their starting point, to develop confidence in applying computational thinking and programming skills while being appropriately challenged to reach their full potential.

Literacy is integral to learning in Computer Science. Students develop and confidently use precise technical vocabulary, read and interpret algorithms, program code and technical documentation, and communicate their reasoning using accurate written, mathematical and computational language. It is essential students are competent and capable of using common applications that they will encounter in the wider world of education and work. These experiences strengthen students' ability to explain, evaluate and justify solutions with increasing precision.

Computer Science supports future pathways by ensuring students understand how the knowledge, skills and ways of thinking developed through the subject are valued in further study, employment and wider life. Students recognise the relevance of computing across a broad range of careers, including software engineering, cybersecurity, artificial intelligence, data science, digital technologies and many other sectors where computational thinking and digital literacy are increasingly essential.

Through expert teaching, high expectations and carefully designed learning experiences, students leave Computer Science with secure disciplinary knowledge, confidence in computational thinking and the ability to apply their learning beyond the classroom. They are equipped to thrive as innovative, informed and responsible citizens who embody Hodgson Academy's vision to Imagine, Believe and Achieve.