Computing

Key Stage 3 (years 7-8)

KS3 builds a foundation of IT digital literacy, Computing and iMedia skills.

Digital Literacy - When students start Gordano School, we teach 'IT101' which covers basic skills including getting logged on to Gordano Systems, using Office 365, email and OneDrive which they will need through their time at Gordano and beyond. E-Safety is taught in Year 7 which builds on their knowledge from primary school, making students aware of issues they may face when communicating online and how they can protect themselves. In Year 8, we teach 'IT for Business' which is largely focused on Spreadsheets to ensure students are well equipped with the IT skills they will need in the modern workplace.

Computing - Students are taught graphical programming skills when programming in Scratch which many might have covered in primary school which leads on to programming in Python which leads on to GCSE. We focus on Computational Thinking skills and students having a deep understanding of how code works and building independent problem-solving skills. Each November, students take part in the Bebras competition which is a national competition for Computational Thinking with certificates awarded for excellent achievements. We also cover theory topics in both Year 7 and 8 which students will see at GCSE which include Cyber Security in Year 7 and System Architecture in Year 8.

IMedia – Creative application of IT is integrated into all of our projects throughout KS3. Students undertake an iMedia project in Year 8 which gives them a flavour of what a KS4 qualification will be like where they will build the skills needed to analyse a client brief, design a solution and create a digital graphic in Adobe Photoshop.

Computing

Key Stage 4 (years 9-11)

There are two pathways within Computing that students can take at KS4 – OCR GCSE Computer Science or OCR Cambridge National in Creative iMedia.

GCSE Computer Science:

Through studying Computer Science students will gain an understanding for how computer systems work as well as Computational Thinking and Programming skills. Programming skills are built upon from students' experiences in KS3 and are interwoven throughout Year 9 to Year 11. Python is taught as our chosen language.

Paper 1 Computer Systems – System Architecture, Memory and Storage, Networks, Network Security, Software and Ethics and Legal issues.

Paper 2 Computational Thinking and Algorithms – Algorithms, Programming Fundamentals, Robust Programs, Boolean Logic, Types of Programming Languages and IDEs.

Cambridge Nationals in Creative iMedia

In Creative iMedia, students will take a hands-on approach to learning how the creative iMedia industry works by completing practical coursework units and learning about the industry using real life business scenarios. By the end of the course students can be expected to have a deep understanding of visual identity and the creative iMedia industry.

Computing

Key Stage 5 (years 12-13)

There are two pathways within Computing that students can take at KS5 – AQA A Level Computer Science and OCR Cambridge Technical in IT (Single or Double award).

A Level Computer Science

Students will have the opportunity to build on their knowledge from GCSE, being able to learn about concepts in more depth and gaining greater confidence programming independently. This involves undertaking an NEA project in Year 13 of the students' choice.

Cambridge Technicals in IT (Single and Double)

As part of this vocational qualification, students will learn about the Fundamentals in IT and Global Information. They will undertake real life coursework projects for a client including Website development, the Internet of Everything and Games Development.