GCSE COMPUTER SCIENCE

Major topics covered are: Problem solving – breaking problems down into smaller, solvable sections and developing/altering algorithms to solve these problems Programming – developing code using programming techniques which will transfer to any programming language Data Representation – how computers represent numbers, text, sound and images Databases – Relational Databases and SQL Computer Systems – hardware, software, logic and function of a processor Communication and the Internet – networks, the internet and the World Wide Web Cyber Security – types of attack and method to prevent them including viruses and hacking Ethical, legal and environmental impacts of digital technology

In addition to teaching the fundamentals of Computer Science, the course teaches problem solving and logical thinking which will readily transfer to other courses and vocations. The digital economy is growing rapidly in the UK with a high demand for programming skills, networking and hardware knowledge to support the growing fields of cyber security, automation and robotics. Students completing the course will be well placed to embark on a career in these sectors. In sixth form students have the opportunity to take A Level computing to further develop their knowledge and understanding of Computer Science in preparation for under graduate university courses or degree apprenticeships in computing related areas.