COMPUTER SCIENCE

GCSE OPTION

AQA

GENERAL INFORMATION GCSE Computing has been designed to introduce students to computation and problem solving using computers and computer programming. The course will develop students’ understanding of current and emerging technologies including algorithms, programming, networking, cyber security and data representation among others. This course would appeal to students who enjoy Mathematics and Physics and is a good introduction to the field of Computer Science.

CONTENT Two units of work are studied on the GCSE Computing course, these are detailed below:

Paper 1: Computational thinking and problem solving A 2 hour written exam which will test students’ understanding of programming, computer architecture and data representation: • The fundamentals of computer systems. • Data representation. • Programming theory. • Program design. • Algorithm design and tracing.

Paper 2: Written assessment A 1¾ hour written paper covering more theoretical components of the course: • Data representation. • Computer systems. • Computer networks. • Cyber security. • Ethical, legal and environmental concerns. TEACHING AND LEARNING

METHODS Students who choose to study the GCSE Computing course will have a variety of theory and practical programming lessons. Lessons are delivered in a variety of formats including a large amount of student led learning. Successful candidates are those who are well disciplined and eager to find out more for themselves.

ASSESSMENT AND EXAMINATION Paper 1 2 hour written examination taken at the end of Year 11 50% of overall grade Paper 2 1¾ hour written examination taken at the end of Year 11 50% of overall grade

HEAD OF DEPARTMENT: Miss H Berry