

# Computing

**Exam board:** AQA

## **Entry requirements:**

Grade 6 in GCSE Mathematics, although a grade 7 or higher is recommended. Studying Computing at GCSE level is not a requirement, however, if you have studied GCSE Computing, you will need at least a Grade 6, which shows that you have an aptitude for the subject.

## **Course content:**

This course covers the fundamentals of computer science and develops a high level of programming skills. By the end of Year 12 you will be writing complex programs to solve given problems. Much of the theory will involve the use of software to explore different computational ideas. The coursework component is completed during Year 13.

At the heart of program design is the skill of problem solving. A large part of this qualification is the development of your problem-solving skills and your ability to think.

## **Assessment:**

### Paper 1:

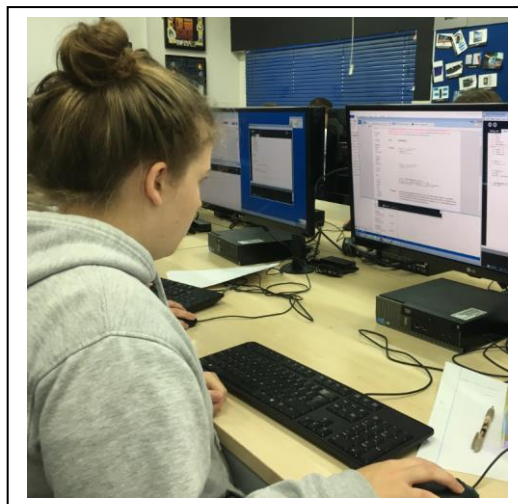
40% of A-level. Written exam of 2.5 hours. Students answer a series of short questions and write/adapt/extend programs in an electronic answer booklet.

### Paper 2:

40% of A-level. Written exam of 2.5 hours answering short and extended answers to questions.

### Non-exam assessment (coursework):

20% of A-level. Students solve or investigate a practical problem (chosen by the student).



## **Why choose Computing:**

Simply speaking, Computing is part of everything we now do.

Every industry uses computers so naturally computer scientists can work in any. Problems in science, engineering, health care, and so many other areas can be solved by computers. It's up to the computer scientist to figure out how, and design the software to apply the solution. The digital age needs computer scientists hence career opportunities are extensive.

Some will choose Computing for its academic grounding. It also has a high proportion of individual work with some opportunity for working in a team. Others choose Computing as it will likely open the door to a lucrative and fulfilling career; perhaps even create opportunities for you to make a positive difference in the world.

## **Skills and progression:**

Few subjects can offer to develop your problem solving ability; Computing is solving problems. The skills learnt in Computing are useful for a range of careers.

Web design and cyber security are some of the careers that did not exist a number of decades ago. What will be the new careers in the next few decades? We don't know what they are but we do know that they will likely be in a field of Computing. The skills acquired in this course are a great foundation and will keep the door open for new opportunities in the future. A number of students taking A-level Computing at our school have gone on to study Computing degrees at universities, including Oxford, Cambridge, Bath, UKC and Southampton.