# OCR GCSE Computer Science

**What will I learn and why choose the subject?**

Technology is ubiquitous in our modern society. Everything from mobile phones, televisions, traffic lights, theme parks, agriculture to sport depend on technology. You need to be prepared for the digital world.

The computing syllabus will give you an in-depth understanding of how computer technology works and a look at what goes on 'behind the scenes'. As part of this, a large amount of the course will be spent learning computer programming. Through this study of computer programming, the course will help you develop critical thinking, analysis and problem solving skills. For many, it will be a fun and interesting way to develop these skills, which can be transferred to other subjects, especially mathematics and other sciences, and even applied in day-to-day life.

It is a fact that information technologies continue to have a growing importance. This means there will be a bigger demand for professionals who are qualified in this area. If you want to go on to higher study and employment in the field of computer science, you will find that this course provides a superb stepping stone. Students who have taken a Computing GCSE and who then progress to study the subject at A Level or university will have a sound underpinning knowledge of this area.

**How will I be assessed?**

There are three units and each has its own assessment:

COMPUTER SYSTEMS

- 90 minute written examination paper worth 40% of the qualification.

COMPUTATIONAL THINKING, ALGORITHMS AND PROGRAMMING

- 90 minute written examination paper worth 40% of the qualification.

PROGRAMMING PROJECT

- Controlled assessment of approximately 20 hours' worth 20% of the qualification.

**What are the Entry Requirements?**

In order to deal with the complexities of the course, in particular the logic skills, you need to be in the top 2 sets for mathematics. Exceptions can be made for those with good programming experience, in consultation with the Head of ICT & Computing

**Is there anything else I need to know?**

Computing Science is a tough and challenging subject. WIthin the first few lessons you will dive straight in to computer programming, which many find challenging but fascinating. The computing science qualification enables you to:

- develop your understanding of current and emerging technologies, understanding of how they work and apply this knowledge and understanding in a range of contexts;
- acquire and apply knowledge, some technical skills and an understanding of the use of algorithms in computer programs to solve problems using programming;
- use your knowledge and understanding of computer technology to become independent and discerning users of IT, able to make informed decisions about its use, and aware of the implications of different technologies;

- Acquire and apply creative and technical skills, knowledge and understanding of IT in a range of contexts; and develop computer programs to solve problems..

**Future Opportunities**

If you take a GCSE in Computing and then go on to study the subject at A Level or university, you'll have an advantage over fellow students who are picking up the subject at these higher levels. The increasing importance of information technologies means there'll be a growing demand for professionals who are qualified in this field.

The course is also an excellent preparation if you want to study or work in areas that rely on the skills you'll develop, especially where they're applied to technical problems. These areas include engineering, financial and resource management, science and medicine.

**Who should I contact for extra information?**

Course contact: angela.power@taw.org.uk or eleanor.edwards3@taw.org.uk

Exam board information (specification update pending):
http://www.ocr.org.uk/qualifications/type/gcse_2012/ict_tec/computing/documents/