



# Carleton Community High School

*A Specialist Science with Mathematics School*



## **AQA Computer Science (An English Baccalaureate Subject)**

Computing is of enormous importance to the economy, and the role of Computer Science as a discipline itself and as an 'underpinning' subject across science and engineering is growing rapidly.

Computer technology continues to advance rapidly and the way that technology is consumed has also been changing at a fast pace over recent years. The growth in the use of mobile devices and web-related technologies has exploded, resulting in new challenges for employers and employees. For example, businesses today require an ever-increasing number of technologically-aware individuals. This is even more so in the gaming, mobile and web related industries and this specification has been designed with this in mind.

Students studying this specification will learn how to create applications that run on mobile devices which operate in a web-enabled environment.

### **In addition students will:**

Learn how to create simple computer programmes and games, gain an understanding of the fundamental concepts around creating software applications and have opportunities to work collaboratively.

Having studied this specification, candidates will be able to create their own mobile applications to gain additional functionality from their mobile devices, such as mobile phones or tablets, rather than being restricted to the applications available from other sources. They will also be able to create interactive web-based applications as opposed to just being end users of these. In the context of gaming, candidates will be able to create their own simple games instead of being restricted to those produced for them by others. In essence, studying this specification will free the candidate from dependency on other people creating applications for them to use. They will have developed the skills and understanding which underpin the creation of their own applications.

If you still are unsure what computing is about please visit <http://tinyurl.com/amjm5ev>. "What Most Schools Don't Teach"

**Course Structure:**

50 hours controlled assessment – 2 tasks of 25 hours each (60%)

1.5 hour written paper (40%)

**Component 1 - Practical programming**

50 hours controlled assessment – 2 tasks of 25 hours each (60%) Commencing Jan 2014.

Working independently students demonstrate their ability to code a solution to a given problem. The tasks will be set in engaging and relevant contexts, eg. gaming, web, mobile phone applications.

**Component 2 - Computing fundamentals**

1 hour 30 minutes examination June 2015

40% of the total marks

All questions will be compulsory and will be taken from across the subject content.

This component will include a range of types of questions from very short to extended answer.

**Controlled Assessments**

The controls for taking the task have been designed to ensure that the task is done by the candidate and is all their own work research and preparation may be done outside the centre and materials brought in to refer to during the controlled sessions (both electronic and hard copy). However, teachers must inspect them and be satisfied that the work is the candidates' own. All research materials must be placed in the candidates' submission folders.

Once the work is completed it is then marked by the student's teacher and the marks submitted to the exam board. The marks for each of the units are only available when the GCSE examination results are published in August. Essentially the students need to treat the Controlled Assessment times as exams.

Students can be entered at the Foundation Level (grade C–G) or the Higher Level (grade A\*–C).

**Homework**

Individual study and the ability to develop new skills are essential requirements of modern employers. The Computing course includes projects and work that will require work to be completed outside of lessons.

**What can parents do to help in this subject?**

Encourage your child to practice their programming skills so that they are able to apply them to their controlled assessment tasks. Encourage the production of a high standard of work through the consideration of layout, formatting and audience.

Encourage your child to proof read their work, checking the content and layout before printing and submitting. Encourage your child to submit all work on time and catch up on all work missed as a result of absence at lunchtime and after school sessions.

Ensure that a backup of their computing work is made by saving it to a home computer, the school computer and a memory device, such as a memory stick.