COMPUTING

OCR GCSE IN COMPUTER SCIENCE

OPTION SUBJECT – CATEGORY A (BACCALAUREATE SUBJECT)

EXAMINATION BOARD: OCR

AWARD CODE: J276

WHY TAKE THIS COURSE?

A modern course for a modern world

This is a course that has real relevance in our modern world. Whilst learners will no doubt already have some knowledge of computers and related areas, the course will give them an in-depth understanding of how computer technology works and a look at what goes on "behind the scenes". As part of this, they will investigate computer programming, which many learners find interesting.

The fun of computing

Through this study of computer programming, the course will help learners 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 and even applied in day-to-day life.

In this way, the course will stimulate interest and engagement with technology and technology-related careers.

Looking to the future

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 learners want to go on to higher study and employment in the field of Computer Science, they will find that this course provides a superb stepping stone. Learners 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 subject area.

AIMS OF THE COURSE

The course will give learners a real, in-depth understanding of how computer technology works. It's a great way to develop critical thinking, analysis and problem solving skills.

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COURSE STRUCTURE AND CONTENT

The course is made up of three aspects:

CONTENT OVERVIEW	ASSESSMENT OVERVIEW	
COMPUTER SYSTEMS ■ Systems Architecture ■ Memory ■ Storage ■ Wired and wireless networks ■ Network topologies protocols and layers ■ System security ■ System software ■ Ethical, legal, cultural and environmental concerns	Computer systems (01) 80 marks 1 hour and 30 minutes Written paper (no calculators allowed)	**50% of total GCSE**
COMPUTATIONAL THINKING, ALGORITHMS AND PROGRAMMING ■ Algorithms ■ Programming techniques ■ Producing robust programs ■ Computational logic ■ Translators and facilities of languages ■ Data representation	Computational thinking, algorithms and programming (02) 80 marks 1 hour and 30 minutes Written paper (no calculators allowed)	**50% of total GCSE**
PROGRAMMING PROJECT ■ Programming techniques ■ Analysis ■ Design ■ Development ■ Testing and evaluation and conclusions	Programming project (03/04)	

ASSESSMENT

Candidates will be awarded a GCSE result on the scale 9 - 1.

The final grade will be made up from the marks from the two written papers and the controlled assessment programming project.

ENTRY REQUIREMENTS

Bags of self-motivation and an ability to work independently. You must also be competent in **IT and Mathematics**, like using algorithms and are logically minded. It goes without saying that you must have a **genuine interest** in computing programming.