Lead teacher: Ms A Ravichandran

What is it?

OCR’s GCSE (1-9) in Computer Science.

Why should I take it?

This exciting GCSE gives you an excellent opportunity to investigate how

computers work and how they’re used, and to develop computer programming

and problem-solving skills. You’ll also do some fascinating in-depth research and

practical work, both of which will help in a variety of different real-world

scenarios. If you have any interest in technological development, application

developments, and in general programming, then this is the course for you.

What will I be studying?

● Understand and apply the fundamental principles and concepts of

Computer Science, including abstraction, decomposition, logic,

algorithms, and data representation.

● Analyse problems in computational terms through practical experience of

solving such problems, including designing, writing, and debugging

programs.

● Think creatively, innovatively, analytically, logically and critically.

● Apply mathematical skills relevant to Computer Science.

● Understand the components that make up digital systems, and how they

communicate with one another and with other systems.

● Understand the impacts of digital technology to the individual and to

wider society.

The new specification of J277:

J277/01: Computer Systems

● System Architecture

● Memory and Storage

● Computer networks, connections and protocol

● Network security

● System software

● Ethical, legal, cultural and environmental impacts of digital technology

J277/02: Computational thinking, algorithms and programming

● Algorithms

● Programming fundamentals

● Producing robust programs

● Boolean Logic

● Programming languages and Integrated Development Environments

How is it assessed?

Computer systems

80 marks

1 hour and 30 minutes

Written paper

(no calculators allowed)

50% of total GCSE

Computational thinking,

algorithms and

programming

80 marks

1 hour and 30 minutes

Written paper

(no calculators allowed)

50% of total GCSE

Practical Programming

All students are given the opportunity to undertake a programming task, either

to a specification or to solve a problem, during their course of study. Students

may draw on some of the content in both components when engaged in

practical programming.

What else do I need to know?

To confidently succeed in computer science you should have a keen interest in

coding, decent grasp of mathematics and an understanding of Technology.