Course Title: GCSE Computer Science

Exam Board: OCR

Length of course: From September 2022 to June 2024

Method of assessment: Two exams, each constituting 50% of final grade, PLUS a

programming project which must be completed

Date of final exam / assessment: May / June 2024 OCR GCSE Computing Course structure Unit title and description Assessment and duration Weighting Exam Paper 1: Computer systems Focused on computer systems covering the physical elements of computer science and the associated theory. Includes: System Architecture; Memory and Storage; Computer Networks; Network Security; Systems Software; Ethical, legal, cultural and environmental impacts of digital technology. 1 hour 30 minutes Written paper 80 marks 50% Exam Paper 2: Computational Thinking, Algorithms and Programming This component is focused on the application of computer science principles, especially computer programming. Includes: Algorithms; Programming fundamentals; Producing robust programs; Boolean Logic; Programming Languages and Integrated Development Environments 1 hour 30 minutes Written paper 80 marks 50%

This course will require a high level of mathematical and logical understanding. We recommend

that only students who are forecast a grade B and above in Maths sign up for this course, but if you

are strong in modern foreign languages, music, or technical design, this can also be beneficial.

Problem solving abilities and the ability to tackle problems with multiple different approaches are

essential.

You will also need a determination to succeed – many individual problems could take a long time to

fully solve. Attention to detail and a resilient nature is a must!

“Computer Science is no more the study of computers than astronomy is the study of telescopes” –

Edsgar Dijkstra

If you like puzzles, solving problems, discovering answers to questions rather than being told them

and learning new languages, this course will appeal to you. You will learn how to program

computers, what happens inside the CPU, how to think in a logical and algorithmic manner, how to

break large problems down into smaller problems, and why ducks are an important computer

science tool.

You will also learn about computer security, networks and encryption and how to break computer

security systems. You will also learn why breaking computer security systems is against the law and

how long you can expect to spend in jail if you do so!

This course can lead to careers in Programming, Game Design / Creation, App development,

Engineering, Financial and Resource Management, Science and Medicine, Cybersecurity, Embedded

Systems Engineering, Data Science, Artificial Intelligence and Machine Learning.

Please come and talk to Mr Smith for further deta