Why should I study Computer Science?

The department encourages students with an interest in the latest technology, programming, ICT and

electronics, coupled with strong skills and understanding in Mathematics and Physics to consider studying

GCSE Computer Science as a subject.

It is widely known that there is a shortage of programmers in the UK. The software design industry is

growing, with the gaming industry becoming bigger because of the rise in mobile technology.

Programmers are highly sought after for their unique mix of logical reasoning, creativity and practical

problem-solving skills. It has been said that all scientists, mathematicians and engineers will at some point

have to produce a piece of coding as part of their studies.

What will I study?

The course will equip pupils to think logically, to assess and analyse problems. It requires pupils to be

innovative as well as creative. The course will enable you to:

• 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

• 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

• apply mathematical skills relevant to computer science

How will I be assessed? (OCR)

100% written exam (plus a Non Examined Assessment which does not count towards the final grade)

Paper 1 Computer Systems Written Exam (90 mins) 50% of the qualification

• Systems architecture, networks, security and software

Paper 2 Computational Thinking, Algorithms and Programming Written Exam (90 mins) 50% of the

qualification

• Computational thinking, programming techniques, problem solving, and applied computing

What will Computer Science enable me to do when I leave Brannel?

Studying Computer Science (known as the fourth science subject) will enable you to get inside one of the

single most powerful tools the world has seen. It is important to understand and appreciate the

fundamentals of computing, as computers figure in all avenues of our lives, within science, technology,

manufacturing, research, medicine, etc. Computing, therefore, influences and affects everything we do in

society today .