Blue Coat
Church of England Academy

Year: 10	Subject: Computer Science

Overview

In an ever changing, technologically advancing society it is imperative that we equip our students with the desired skills needed for their future life and career. With new technological jobs emerging constantly that have not previously existed, it is vital that our students are digitally literate, logical and adaptable thinkers who have the knowledge and skills to meet the ever changing and new demands of the future society. The Royal Society have identified three distinct strands within computing that all complement each other – they are Computer Science, Information Technology and Digital Literacy. Each component is vital when preparing our students for their futures within the digital world.

Students have the opportunity to study either Computer Science or BTEC Digital Information Technology.

Computer Science

https://www.aqa.org.uk/subjects/computer-science-and-it/gcse/computer-science-8520

GCSE Computer Science will help students think about how technology is created. It allows students to understand how different programmes are created, developing skills that colleges, universities and employers are looking for. Over the course students will cover the following:

Computational thinking: this is the process of thinking through a complex problem, taking the time to understand what the problem is and then develop potential solutions for evaluation. These are then presented in a way that a computer, human or both can understand.

Theoretical content: Students will understand the fundamentals of data representation and computer networks. They will learn about the computer systems and understand the world of cyber security and ethical legal and environmental impacts of digital technology.

Aspects of software development: students will understand how to implement and test a design to make sure it works effectively. Learning how to complete an overall evaluation to help refine the end product.

Assessment: Students will be assessed through two written exams. A programming project will assess students ability to use the knowledge and skills that they have gained through the course to solve a practical programming problem.