#### **Subject rationale – Why study the subject? What benefits does it bring?**

Computer Science is one of the most democratic undertakings yet devised by mankind. We live in a world now where someone with access to a computer and the required skills, can change the world with a single idea. In the grand scheme of human history, computer science is a young discipline, which means that its ramifications are still being explored, and careers and disciplines therefore exist today, that were considered science fiction just a decade ago. Computers continue to impact the lives of any individual living in a connected world, affecting the way they communicate; interact; learn; perceive the world; contribute; and make a living.

**KS4 curriculum overview**

At Bishop Challoner we follow the OCR GCSE Computer Science specification and have done so with great success since 2013. The OCR course offers a great breadth of learning and as part of their study, students develop their critical thinking in the following areas:

* Problem solving
* Systems Architecture
* Networks and network topologies
* System security
* System software
* Ethical, legal, cultural and environmental concerns
* Algorithms
* Programming techniques
* Computational logic
* Translators and facilities of languages
* Data representation

The course is highly demanding but an equally rewarding one that can open many doors for those who complete it. The nature of the course is perfect for those who enjoy being consistently challenged and tested in order to improve their knowledge and ability.

Assessment Overview

The J277 course will be offered for the first time from September 2020 and the assessment process is as follows:

Component

Examination Method

Weighting

Computer Systems

Exam

50%

Computational thinking, algorithms and programming

Exam

50%

\*programming is now assessed through content on the second exam paper.