Subject: Computer Science

Kay Stage 4 Curriculum Plan

Year: 11

Department Information:

Students follow the OCR Computer Science Course J277

Curriculum aims and intent:

Students will have the opportunity to study the different aspects of technology and computer science, with the intention that students will be able to progress to higher levels of study or to a professional career.

Throughout the two years, pupils will have the opportunity to develop their capability, creativity and knowledge in Computer Science. They will develop and apply analytic skills including problem solving through the programming units taught. Students will also interrogate how technology has an impact on safety, including new technologies such as AI and the mass collection of data.

Resources used to support learning:

BBC Bitesize
YouTube - Craig n Dave
w3schools
OCR Revision Guide

Home Learning:

Students are given homework for every lesson to watch a Craig and Dave video and make notes

Assessment:

Students will complete ten end of topic tests throughout years 10 and 11, alongside mock tests. These mock tests are:

Year 11:
Both Paper 1 and Paper 2 mock tests in November. Students will also complete a WTM in the March of their final year.

How parents can help their child:

Encourage the students to complete their homework alongside using a revision guide.

Term	Summary of work being covered	Knowledge, Understanding and skills assessed	How the work is assessed	Career Links
1	1.4 Network security	What are the threats to devices and computers?	Unit 1.4 Assessment	Cyber security analysts protecting organisations from hackers
2	2.4 Boolean logic		Unit 2.4 Assessment Paper 1 and 2 Mock	Electronics engineers designing computer chips and digital circuits
3	2.5 Programming languages and IDE's		Unit 2.5 Assessment	Professional software developers writing and debugging code efficiently
4	1.6 Ethical, cultural, legal & environmental	What are the ethical issues of computing? What privacy issues does computing give society? What does the legislation for computing prohibit? What is the impact of computing on people? What is the environmental impact of computing? How can digital technology have an impact on society at a local, national and international level? What recommendations would you give to someone considering software for their PC?	Unit 1.6 Assessment	Data protection officers ensuring organisations comply with privacy laws
5	1.5 System software	Why does your computer need an operating system? How does a computer manage having lots of programs open and running at the same time? What is the purpose of utility software?	Unit 1.5 Assessment	IT professionals managing Windows, Linux and macOS systems
6	Exam Technique Paper 1 and 2	Students will complete past paper tests, looking at the different types of questions that can be asked and how they should approach them.	Students will be completing past exam paper questions and full tests	