	Year 12	Year 13
A-Level	Structured ICT Tasks and Information, Systems and Applications	ICT Systems, Applications and Implications and ICT Project
Applied A-Level	Using ICT to communicate, How organisations use ICT and ICT solutions for individuals and society	Interactive Multimedia, Working to a brief, Art work and Imagery
Computer Science	Computer Fundamentals and Programming Techniques and Logical Methods	Advanced Computing Theory and Computing Project

KS5 A level Computer Science – Curriculum Intent

Exam Board	OCR
Specification	Computer Science -H446 (from 2015)
Assessment	2 Written Exams 1 Programming NEA
Useful online resources	Craig'n'Dave - YouTube (Ctrl and Click) A level topics — Isaac Computer Science(Ctrl and Click)
Recommended course book	A/AS Level Computer Science for OCR Teaching Programming Cambridge Elevate Enhanced Edition (2 Years)
Equipment required for lessons	Regular stationery, scientific calculator (readily available for around £8-10), ruler, lined paper, lever arch file for notes.

Overview of teaching (This is a long term plan, and some content may move across the half term boundaries depending on the needs of each class)

Year 12

Half Term 1	1.1.1 Structure and function of the processor 1.1. The characteristics of contemporary processors, input, output and storage devices 1.1.2 1.1.2 Types of processor 1.5.1 Computing related legislation	2.2.1 Programming techniques
Half Term 2	1.1.3 Input, output and storage 1.5.2 Moral and ethical Issues 1.3.4 Web Technologies	2.3.1 Algorithms 1.4.1 Data Types 1.4.2 Data Structures
Half Term 3	1.2.1 Systems Software	2.2.1 Programming techniques 1.4.1 Data Types 1.4.2 Data Structures
Half term 4	1.2.1 Systems Software 1.2.2 Applications Generation 1.3.1 Compression, Encryption and Hashing	2.2.1 Programming techniques 1.4.1 Data Types 1.4.2 Data Structures 3.1. Analysis of the problem
Half Term 5	1.2.2 Applications Generation 1.5.2 Moral and ethical Issues 1.2.3 Software Development	2.3.1 Algorithms 2.2.1 Programming techniques 3.2 Design of the solution
Half Term 6	1.3 Exchanging data 1.2.4 Types of Programming	2.2.1 Programming techniques 2.2.2 Computational methods

(Commencement of year 13 content)	Language	2.1.1 Thinking abstractly 2.1.2 Thinking ahead 2.1.3 Thinking procedurally 2.1.4 Thinking logically 2.1.5 Thinking concurrently

Year 13

Half Term 1	1.3.2 Databases 1.3.3 Networks	3.1. Analysis of the problem 2.2.1 Programming techniques 3.3 Developing the solution 2.1.1 Thinking abstractly 2.1.2 Thinking ahead 2.1.3 Thinking procedurally 2.1.4 Thinking logically 2.1.5 Thinking concurrently
Half Term 2	1.4.3 Boolean Algebra 1.4 Data types, data structures and algorithms MOCK	3.2 Design of the solution 3.3 Developing the solution
Half Term 3	1.3.4 Web Technologies	3.3 Developing the solution 3.4 Evaluation 2.3.1 Algorithms 1.4.1 Data Types 1.4.2 Data Structures
Half term 4	1.5 Legal, moral, cultural and ethical issues	2.1.1 Thinking abstractly 2.1.2 Thinking ahead 2.1.3 Thinking procedurally 2.1.4 Thinking logically 2.1.5 Thinking concurrently
Half Term 5	ASSESSMENT	ASSESSMENT
Half Term 6	N/A	N/A

A-Level Computer Science KS5 Assessment:

Half Term	Year 12 Assessment content and style	Year 13 Assessment content and style
HT1	Classroom based past questions	Past exam questions written assessment
HT2	Past exam questions written assessment	Full Mock Examination
HT3	Classroom based past questions	Past exam questions written assessment
HT4	Past exam questions written assessment	Past exam questions written assessment

HT5	Past exam questions written assessment	External examination
HT6	End of Year Mock Examination	

How can parents/carers support their child at KS5 Computer Science?

Key Stage 5 Computer Science
1. Encourage your child to respond to teacher feedback, making improvements to their work and catching up on anything missed. 2. Encourage your child to spend time revising from their exercise books and revision guides. Talking to your child about their learning in the subject and testing them on their knowledge will help them to commit it to their long-term memory. 3. Ensure your child has knowledge in a programming language. Please find below the link to a python course that you can do straight from your browser: Learn Python 2 | Codecademy 4. To begin the A-Level course ensure you have fully reviewed the GCSE Specification in video form which can be found here: GCSE OCR J277 Computer Science Videos – Craig 'n' Dave | Students (craigndave.org) 6. Use the A-Level videos to review and test class content on a regular basis. A Level OCR Computer Science Videos – Craig 'n' Dave | Students (craigndave.org) Visit the following websites that will support your learning: https://www.ocr.org.uk/Images/260930-coding-challenges-booklet.pdf Python GUI Help: TkDocs Tutorial - A First (Real) Example JavaFX help: Getting Started with JavaFX: About This Tutorial | JavaFX 2 Tutorials and Documentation (oracle.com) JavaFX Pop Up boxes: JavaFX Dialogs (official) | code.makery.ch https://isaaccomputerscience.org/

Homework Policy for Computer Science:

Key Stage 5
Frequency: Homework tasks will be set on a weekly basis. Students will spend 1 hour per lesson on homework tasks. In line with the coursework nature of the course, student will be expected to do a minimum of 3 hours homework on coursework per week. Where necessary teachers will be available at dedicated times after school to support students with coursework and practical tasks. **Types of tasks:** ▪ Completion of coursework tasks e.g. research skills, designs, products etc. ▪ To embed key subject content in long term memory, e.g. the learning of exam technique and material. ▪ Learning and revision for class tests and examinations e.g. cue cards. ▪ To prepare and answer questions based on subject content. ▪ Extend learning and reinforce key learning in class e.g. to practise examination questions. ▪ Research in preparation for future tasks e.g. questionnaires.

Type and frequency of feedback by Key Stage: Computing/ICT

Key Stage 5
▪ All teachers will mark extended written work to correct paragraphing, sentence structure and elements of punctuation plus spelling errors. ▪ Peer assessment and self-marking is used where we deem it appropriate. ▪ At 'A' level we work towards students having an opportunity to produce coursework, this should be marked with students the being given the opportunity to improve their work. ▪ Students should be given at least one formal opportunity ▪ to improve work against the mark grids. ▪ All exam preparation must be assessed using the mark grids or "2 S & W" as appropriate. ▪ Formal exam preparation material is not permitted to receive feedback from teachers in accordance with the exam board regulations.