Cardinal Newman Catholic School
Department of Computer Science and Creative iMedia

INTENT: Curriculum Overview Year 13 OCR A-Level Computer Science

A learner in Year 13 will know: The knowledge and understanding to apply their learning to exam style questions for components 1 and 2. They will be able to demonstrate their knowledge of computer science in real-life scenarios including those related to their chosen project choice. In year 13 students will apply many skills to navigate the remainder of the course, including personal organisation skills to complete their NEA project and revisit topics to perform well in the 2 exam papers.	A learner in Year 13 will be able to: Apply the academic principles learned in the classroom to real-world systems and scenarios, they will be able to formulate well planned answers to exam style questions for all topics covered. Students will also be able to describe their projects in detail, identifying strengths and potential weaknesses.

Term 1	**13.1 Topics** 3.3 Developing the solution 3.4 Evaluation Exam recap: • 1.1 The characteristics of contemporary processors, input, output & storage • 1.4 Data types, data structures and algorithms	**13.2 Topics** Component 3 NEA Final deadline	Autumn Summative Assessment
	Knowledge: **3.3.1 Iterative development process** a) Provide annotated evidence of each stage of the iterative development process justifying any decision made. 3.3.1 b) Provide annotated evidence of prototype solutions justifying any decision made. **3.3.2 Testing to inform development** a) Provide annotated evidence for testing at each stage justifying the reason for the test. 3.3.2 b) Provide annotated evidence of any remedial actions taken justifying the decision made. **3.4.1 Testing to inform evaluation** a) Provide annotated evidence of testing the solution of robustness at the end of the development process. 3.4.1 b) Provide annotated evidence of useability testing (user feedback) **3.4.2 Success of the solution** a) Use the test evidence from the development and post development process to evaluate the solution against the success criteria from the analysis. **3.4.3 Describe the final product** a) Provide annotated evidence of the useability features from the design, commenting on their effectiveness. **3.4.4 Maintenance and development** a) Discuss the maintainability of the solution. 3.4.4 b) Discuss the potential further development of the solution.	Knowledge: Student have been taught all sections of the NEA project since Easter in year 12. They have this half-term to collate all sections to produce their final project and submit for marking.	Assessment follows the policy of the school, students will have a piece of work marked every 4 weeks. This will be based on practise questions around the topics covered during that period. All questions will follow the structure of those they will answer in the real exams. **Summative assessment** During the assessment period a mock exam paper will be used to cover real exam past-paper questions that cover the content students have covered.

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	Exam recap: 1.1.1 Structure and function of the processor 1.1.2 Types of processor 1.1.3 Input, output and storage 1.4.1 Data Types 1.4.2 Data Structures 1.4.3 Boolean algebra		
Term 2	**13.3 Topics** Exam recap: • 1.3 Exchanging data • 2.2 Problem solving and programming • 2.3 Algorithms	**13.4 Topics** Exam recap: • 1.2 Software and software development • 1.5 Legal, moral and ethical issues • 2.1 Elements of computational thinking	Spring Summative Assessment
	Knowledge: 1.3.1 Compression, Encryption and Hashing 1.3.2 Databases 1.3.3 Networks 1.3.4 Web Technologies 2.3.1 Algorithms 2.2.2 Computational Methods	Knowledge: 1.2.1 Systems Software 1.2.2 Applications Generation 1.2.3 Software Development 1.2.4 Types of Programming Language 1.5.1 Computing related legislation 1.5.2 Moral 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	Assessment follows the policy of the school, students will have a piece of work marked every 4 weeks. This will be based on practise questions around the topics covered during that period. All questions will follow the structure of those they will answer in the real exams. **Summative assessment** During the assessment period a mock exam paper will be used to cover real exam past-paper questions that cover the content students have covered.
Term 3	**13.5 Topics** Exam preparation	**13.6 Topics** Exams	Summer Summative Assessment
	The remainder of year 13 will be spent preparing students for the summer exams in May/June. Lessons remain structured with topics being re-taught, students will have exam questions to answer that have come from previous years papers and/or created by their teacher. Analysis of exam papers since the beginning of the specification allows targeted revision sessions to be purposeful, resourceful and well planned.	The remainder of year 13 will be spent preparing students for the summer exams in May/June. Lessons remain structured with topics being re-taught, students will have exam questions to answer that have come from previous years papers and/or created by their teacher. Analysis of exam papers since the beginning of the specification allows targeted revision sessions to be purposeful, resourceful and well planned.	**Exam board assessment** .

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