

Year 11 Edexcel Computer Science Revision Timetable – Exams May 2026		
1CP2 01	Paper 1: Principles of Computer Science	Monday 11 May
1CP2 02	Paper 2: Application of Computational Thinking (Onscreen using an Integrated Development Environment (IDE) of choice)	Tuesday 16 May
Useful Resources:		
<ul style="list-style-type: none"> • See Exam Style programming tasks on Teams • Revision sessions Monday after school and coding practice Wednesday Lunchtimes in L2 • StudyHubCS: https://missallgar01.github.io/studyhubcs/index.html • SmartRevise: https://smartrevise.online/ • Go Code it Practice exam style questions https://gocodeit.online/ • Seneca Learning • Edexcel Computer Science revision on https://www.williamsphysics.co.uk/computerscience/ 		
Date	Topics	
Week 1 Feb half term	<p>Topic 3: Computers</p> <ul style="list-style-type: none"> <input type="checkbox"/> Stored program concept <input type="checkbox"/> Fetch-decode-execute cycle <input type="checkbox"/> Main memory (RAM) <input type="checkbox"/> CPU (control unit, arithmetic logic unit, registers) <input type="checkbox"/> Clock speed <input type="checkbox"/> Pipelining <input type="checkbox"/> Buses - address bus, data bus, control bus <p>Secondary storage and the ways in which data is stored on devices:</p> <ul style="list-style-type: none"> <input type="checkbox"/> magnetic <input type="checkbox"/> optical <input type="checkbox"/> solid state <p>Embedded systems and what embedded systems are used for</p>	
Week 2	<p>Topic 2 Data</p> <ul style="list-style-type: none"> <input type="checkbox"/> Unsigned integers <input type="checkbox"/> Two's complement signed integers <input type="checkbox"/> Convert between denary and 8-bit binary numbers (0 to 255, -128 to +127) <input type="checkbox"/> Binary addition <input type="checkbox"/> Logical binary shift <input type="checkbox"/> Arithmetic binary shifts <input type="checkbox"/> Overflow <input type="checkbox"/> Hexadecimal and binary conversions 	
Week 3	<p>Topic 2 Data</p> <ul style="list-style-type: none"> <input type="checkbox"/> Computers encode characters using 7-bit ASCII <input type="checkbox"/> Bitmap images are represented in binary (pixels, resolution, colour depth) <input type="checkbox"/> Analogue sound is represented in binary (amplitude, sample rate, bit depth, sample interval) <input type="checkbox"/> Limitations of binary representation of data when constrained by the number of available bits <p>Data storage</p> <ul style="list-style-type: none"> <input type="checkbox"/> Data storage is measured in binary multiples <ul style="list-style-type: none"> - Bit, nibble, byte, kibibyte, mebibyte, gibibyte, tebibyte <input type="checkbox"/> construct expressions to calculate file sizes and data capacity requirements <p>Compression</p> <ul style="list-style-type: none"> <input type="checkbox"/> Data compression and methods of compressing data <input type="checkbox"/> Lossless and lossy 	
Week 4	<p>Topic 4: Networks</p> <ul style="list-style-type: none"> <input type="checkbox"/> Purpose of networks <input type="checkbox"/> LAN and WAN <input type="checkbox"/> Wired and wireless connectivity <input type="checkbox"/> Impact on performance: (Speed, Range, Latency and Bandwidth) <input type="checkbox"/> Understand that network speeds are measured in bits per second: (-Kilobit, Megabit and Gigabit) <input type="checkbox"/> Be able to construct expressions involving file size, transmission rate and time. <input type="checkbox"/> Bus, Star and Mesh 	
Week 5	<p>Topic 4: Networks</p> <p>Understand how the internet is structured:</p> <ul style="list-style-type: none"> <input type="checkbox"/> IP addressing <input type="checkbox"/> routers <input type="checkbox"/> Network protocols: (Ethernet, Wi-Fi, TCP/IP, HTTP/HTTPS, FTP) 	

Date	Topics
	<ul style="list-style-type: none"> <input type="checkbox"/> Email protocols (POP3, SMTP, IMAP) <input type="checkbox"/> Understand how the 4-layer: <ul style="list-style-type: none"> - Application/ Transport / Internet / Link <input type="checkbox"/> TCP/IP model handles data transmission over a network <input type="checkbox"/> Network security and ways of identifying network vulnerabilities: <ul style="list-style-type: none"> - penetration testing, - ethical hacking <input type="checkbox"/> Methods of protecting networks: <ul style="list-style-type: none"> access control / physical security / firewalls
Week 6 Easter	<p>Topic 3: Software</p> <p>understand the purpose and functionality of an operating system</p> <ul style="list-style-type: none"> <input type="checkbox"/> File management <input type="checkbox"/> Process management, <input type="checkbox"/> Peripheral management <input type="checkbox"/> User management <p>Understand the purpose and functionality of utility software</p> <ul style="list-style-type: none"> <input type="checkbox"/> File repair <input type="checkbox"/> backup <input type="checkbox"/> data compression <input type="checkbox"/> disk defragmentation <input type="checkbox"/> anti-malware <ul style="list-style-type: none"> <input type="checkbox"/> Understand the importance of developing robust software and methods of identifying vulnerabilities <input type="checkbox"/> Audit trails <input type="checkbox"/> Code reviews
Week 7 Easter	<p>Topic 3 Programming Languages</p> <ul style="list-style-type: none"> <input type="checkbox"/> Understand the characteristics and purposes of low-level and high-level programming languages <input type="checkbox"/> Understand how an interpreter differs from a compiler in the way it translates high-level code into machine code
Week 8	<p>Topic 1 Computational Thinking</p> <ul style="list-style-type: none"> <input type="checkbox"/> Benefit of using decomposition and abstraction to model aspects of the real world and analyse, understand and solve problems <input type="checkbox"/> Benefits of using subprograms <input type="checkbox"/> Flow charts <input type="checkbox"/> Programming constructs <input type="checkbox"/> Variables, constants, global and local and data types <input type="checkbox"/> Determine the correct output of an algorithm for a given set of data and use a trace table to determine what value a variable will hold at a given point in an algorithm.
Week 9	<p>Topic 1</p> <p>Truth tables - be able to apply logical operators (AND, OR, NOT) in truth tables with up to three inputs to solve problems</p> <p>Searching and Sorting Algorithms</p> <ul style="list-style-type: none"> <input type="checkbox"/> linear search <input type="checkbox"/> binary search <input type="checkbox"/> Bubble sort <input type="checkbox"/> merge sort <p>Algorithm Efficiency</p> <p>Use test data to evaluate an algorithm's fitness for purpose and efficiency. number of compares, number of passes through a loop and use of memory</p>
Week 10	<p>Topic 5: Issues and impact</p> <ul style="list-style-type: none"> <input type="checkbox"/> Environmental <p>Ethical and legal issues associated with the use of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Artificial intelligence <input type="checkbox"/> Machine learning <input type="checkbox"/> Robotics <input type="checkbox"/> Accountability, safety, algorithmic bias, legal liability <input type="checkbox"/> Intellectual property protection <input type="checkbox"/> Malware & social engineering <input type="checkbox"/> Protection methods <p>Backup and recovery procedures</p>
Week 11	<ul style="list-style-type: none"> <input type="checkbox"/> Past papers
Monday 11 May	Paper 1: Principles of Computer Science
Tuesday 18 May	Paper 2: Application of Computational Thinking (Onscreen using an Integrated Development Environment (IDE) of choice)