



Computing- Curriculum Overview

Year 7

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	1. Collaborating online respectfully -	2. Networks: from semaphores to the Internet -	3. Gaining support for a cause -	4. Programming essentials in Scratch – part I	5. Programming essentials in Scratch – part II	6. Spreadsheets:
Assessment & End Points:	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms

Year 8

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	1. Developing for the web	2. Representations: from clay to silicon -	3. Design Vector Graphics	3. Mobile App –(TBC)	5. Computing Systems-	6. Intro to Python programming -
Assessment & End Points:	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms

Year 9

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	1. Python programming with sequences of data -	2. Media - Graphics	3. Data Science -	4. Representations - going audio-visual -	5. Cyber security -	6. Physical Computing -
Assessment & End Points:	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms	STAR assessment via MS forms

Year 10

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	Unit 1 Systems Architecture	Unit 2 Data Representation	Unit 3 Networks connections, protocols	Unit 4 Network-security-and-systems-software.	Unit-5-Impacts-of-digital-technology	Unit 6 Algorithms.
Assessment & End Points:	Unit 1 Systems Architecture – End of Topic Test 50 marks	Unit 2 Data Representation - End of Topic Test 50 marks	Unit 3 Networks connections, protocols - End of Topic Test 50 marks	Unit 4 Network-security-and-systems-software. - End of Topic Test 50 marks	Unit-5-Impacts-of-digital-technology - End of Topic Test 50 marks	Paper 1 Mock Exam 90min 80 marks

Year 11

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	Unit 6 Algorithms.	Mock Exam Revision and Unit 7 Programming.	Unit 7 Programming.	Unit 8 Logic and Languages.	Paper 1 & 2 Revision	Summer Exams
Assessment & End Points:	Unit 6 Algorithms.- – End of Topic Test 50 marks	Mock Exam _ paper full 90 min 80 marks Paper 2 ½ 60 min 40 marks	Unit 7 Programming. - End of Topic Test 50 marks	Unit 8 Logic and Languages. - End of Topic Test 50 marks	Paper 1 & 2 Revision	Summer Exams



Computing- Curriculum Overview

Year 12

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Topics:	<p>Comp 1 1.1 The characteristics of contemporary processors, input, output and storage devices 1.1.1 Structure and function of the processor 1.1.2 Types of processor 1.1.3 Input, output and storage</p> <p>Comp 2 1.4 Data types, data structures and algorithms 1.4.1 Data Types</p>	<p>Comp 1 1.2 Software and software development 1.2.1 Systems Software - 8 lessons</p> <p>Comp 2 2.2 Problem solving and programming 2.2.1 Programming techniques</p>	<p>Comp 1 1.2 Software and software development 1.2.2 Applications Generation</p> <p>Comp 2 1.4 Data types, data structures and algorithms 1.4.2 Data Structures</p>	<p>Comp 1 1.3 Exchanging data 1.3.1 Compression, Encryption and Hashing. 1.2.4 Types of Programming Language</p> <p>Comp 2 2.2 Problem solving and programming 2.2.2 Computational methods</p> <p>NEA - Preparation 1 hour a week - 2.1 Elements of computational thinking procedurally</p>	<p>Comp 1 1.3 Exchanging data 1.3.3 Networks 1.2 Software and software development 1.2.3 Software Development</p> <p>Comp 2 2.1 Elements of computational thinking 2.1.4 Thinking procedurally 2.1.5 Thinking concurrently 2.3 Algorithms ½</p> <p>NEA - Preparation 1 hour a week -</p>	<p>Comp 1 1.3 Exchanging data 1.3.4 Web Technologies NEA - Analysis Section - 1 hour a week –</p> <p>Comp 2 2.3 Algorithms 2/2 NEA - Analysis Section - 1 hour a week -</p>	
Assessment & End Points:			Paper 1 Mock Exam		Paper 2 Mock Exam		

Year 13

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Topics:	<p>Comp 1 1.5 Legal, moral, cultural and ethical issues 1.5.1 Computing related legislation</p> <p>Comp 2 1.4 Data types, data structures and algorithms</p>	<p>Comp 1 1.5 Legal, moral, cultural and ethical issues 1.5.2 Moral and ethical Issues</p> <p>NEA - 3.3 Developing the solution (25 marks)</p>	<p>Comp 1 Content of non-exam assessment Programming project 3.3 Developing the solution (25 marks) 3.4 Evaluation (20 marks)</p>	<p>Comp 1 Content of non-exam assessment Programming project 3.3 Developing the solution (25 marks) 3.4 Evaluation (20 marks)</p>	<p>Comp 1 & Comp 2 MS forms PLC based on specification to aid in teacher and student direction of revision. Review topics. Crossover papers. Also teach exam technique and do an exam paper walkthrough for Paper 1 and Paper 2</p>		



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	<p>1.4.3 Boolean Algebra</p> <p>NEA Design Section 1 hr</p>	<p>Comp 2</p> <p>2.2 Problem solving and programming</p> <p>2.2.1 Programming techniques - B</p> <p>1.3 Exchanging data</p> <p>1.3.2 Database</p>	<p>Comp 2</p> <p>2.3 Algorithms</p> <p>(b) The suitability of different algorithms for a given task and data set, in terms of execution time and space.</p> <p>(c) Measures and methods to determine the efficiency of different algorithms, Big O notation (constant, linear, polynomial, exponential and logarithmic complexity)</p>	<p>Comp 2</p> <p>MS forms PLC based on specification to aid in teacher and student direction of revision.</p> <p>Review topics.</p> <p>Crossover papers.</p> <p>Also teach exam technique and do an exam paper walkthrough for Paper 1 and Paper 2</p> <p>Exam prep including problem solving and mini papers.</p> <p>Make use of Seneca Learning and GCSEPod platforms to aid directed revision</p>	<p>Exam prep including problem solving and mini papers.</p> <p>Make use of Seneca Learning and GCSEPod platforms to aid directed revision</p>
<p>Assessment & End Points:</p>	<p>UCAS MOCK Exam</p>		<p>Spring Mock Paper 1 & 2 NEA DEADLINE</p>		<p>SUMMER EXAMS</p>