

Year 7 Computing Overview 2018-2019

	7.1	7.2	7.3	7.4
Year 7	<u>Theory: Computer Systems</u> <ul style="list-style-type: none"> • What is a computer system? • Hardware • Software • Computer components. • Peripherals. • Embedded system 	<u>Theory: Security Issues</u> <ul style="list-style-type: none"> • Malware • Types of attack • Social engineering • Methods of protection 	<u>Theory: Networks</u> <ul style="list-style-type: none"> • Network • LAN vs WAN • Network Hardware • Topologies • Client server vs P2P 	<u>Theory: Basic programming constructs</u> <ul style="list-style-type: none"> • High level vs Low level code • Variables • Data types • Inputs and outputs • Operators • Sequence and selection
	<u>Practical ICT skills: Word processing</u> <ul style="list-style-type: none"> • Text formatting • Automatic page numbering, • Adding and editing headers/footers • Working with auto shapes • Smart-art • Tables • Text wrapping • Automatic table of contents. 	<u>Practical ICT Skills: HTML Web Design</u> <p>Webpage creation using basic HTML tags: <HTML>, <HEAD>, <BODY> <H>, <P> etc.</p> <p>Formatting style tags</p> <p>Adding images (including animated GIFS)</p> <p>Hyperlinks</p>	<u>Practical ICT Skills: Interactive PowerPoint</u> <ul style="list-style-type: none"> • Master slide formatting • Image and text formatting • Transitions • Animations • Hyperlinks 	<u>Practical ICT Skills: Python Programming</u> <p>Students will learn how to apply the above programming constructs when creating programs in Python.</p>

** Assessment – Students will be assessed per sub topic completing an exit-pass and will complete a summative end of unit assessment.*

Year 8 Computing Overview 2018-19

	8.1	8.2	8.3	8.4
Year 8	<p><u>Memory vs Storage</u></p> <ul style="list-style-type: none"> • Memory • Storage • Characteristics of secondary storage • Data capacity 	<p><u>Data Representation</u></p> <ul style="list-style-type: none"> • Binary / Denary • Hexadecimal • Binary Addition • Logic gates 	<p><u>Ethical & Cultural</u></p> <ul style="list-style-type: none"> • Ethics vs. Law • Legislation • Cultural Issues • Privacy • Environmental Issues 	<p><u>Computational Thinking</u></p> <ul style="list-style-type: none"> • Abstraction • Decomposition • Algorithmic thinking • Algorithms <ul style="list-style-type: none"> - Flowcharts - pseudocode

* Students will be assessed per-sub topic through exit passes (a small selection of GCSE questions on the topic in question) and a summative assessment will be taken at the end of each unit (a mix of GCSE questions on all topics covered in the unit).

Students will all receive a knowledge organiser for independent home study per unit, which should be used for reflection, revision or pre-reading on future topics.