Year 7 Computer Science Curriculum Map

Half Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Big Themes	**What's inside of my computer?** Students will learn where Computer Systems are used. They will look at Input & Output devices, CPU and Storage devices. Students will look at how numbers and images are stored in binary (data representation) as well as how Operating Systems are used. Students will finish the unit by learning to search efficiently for information online (using boolean logic in their search terms.)		**Can we connect the world?** Students will design and code webpages using a range of common HTML tags. Students will also use CSS style sheets to enhance presentation and content. By the end of term, students will produce their own website using HTML and CSS. In addition, students will learn basic network concepts, which include, client/server networking, the internet, and data packets.		**How can computer code produce art?** Students will learn the fundamentals of programming using the Python language. They will write Python code to create computer art using the Turtle graphics module. Students will also learn basic programming concepts including sequence, selection, and iteration. They will use variables as well as conditional and iterative structures to control program flow.	
Knowledge and skills covered	• To define "Computer System" and know where they are used • To explain how and why computer systems are used in real world applications • To describe input and output, and cite example I/O devices	• To describe how an image can be stored as binary • To understand the need for software in Computer Systems • To cite different examples of software for different scenarios • To understand the role of an operating system and name an OS in common use	• To understand the difference between The Internet and The World Wide Web • To plan a website for a specific need • To be able to add headings, text & images to a webpage using HTML • To become aware of Copyright Law	• To add lists to a webpage • To understand how to apply presentation styles using CSS in a webpage • Peer review other student websites • To improve websites based on peer feedback	• Compare how humans and computers understand instructions (understand and carry out) • Define a sequence as instructions performed in order, with each executed in turn • Predict the outcome of a	• Define a condition as an expression that will be evaluated as either 'true' or 'false' • Identify that selection uses conditions to control the flow of a sequence • Identify where selection statements can be used in a program

	• To describe the basic operation of a CPU • To understand the role of binary numbers in computing • To know how to convert ordinary whole numbers to binary and vice versa.	• To discover how to efficiently search the internet with effective search criteria.	when re-using images" • To understand the importance of one's digital footprint. • To create a homepage and child webpages • To understand how webpages are linked together using Hyperlinks.		simple sequence • Modify a sequence • Define what a variable is • Recognise that computers follow the control flow of input/process/output • Use variables to store values and learn to trace how variables values can change as a program is run,	• Modify a program to include selection
Knowledge organisers and more detailed topic resources can be found on all student Google Classrooms						

Year 7 Key 'Subject' Assessment Dates 2021-22		
Data Drop 1	**Data Drop 2**	**Data Drop 3**
Revision Focus: Unit 7.1 **Assessments:** Online Assessment - Mixture of multiple choice questions and written responses.	**Revision Focus:** Unit 7.2 **Assessments:** Online Assessment - Mixture of multiple choice questions and written responses.	**Revision Focus:** Unit 7.3 **Assessments:** Online Assessment - Mixture of multiple choice questions and written responses.