KS3 Computing

	Content
Year 7 HT1	What makes a secure password, setting strong passwords. Classroom specific rules. Respectful communication and sending emails. E-safety and using the internet. Creating Presentations and submitting work.
Year 7 HT2	Basic data representation - How are images, emojis and text stored? What is a computer? How does it store information? RGB.
Year 7 HT3	Binary calculations and conversions. Basics of Boolean logic (then applied in Kodu, Scratch)
Year 7 HT4	Programming concepts such as algorithms & sequence, variables, selection, iteration, explored using Scratch.
Year 7 HT5	Understanding data and spreadsheets - Students will learn how to use spreadsheet software to manage information using formula and functions.
Year 7 HT6	Using Micro:Bit to explore physical computing. Revisiting and expanding on programming concepts from previous units.
Year 8 HT1	Environmental impact of computing, digital divide, threats and scams.
Year 8 HT2	iMedia Unit - Students explore animation theory and techniques, which are then applied to create a portfolio featuring a variety of 2D animations.
Year 8 HT3	Further Data Representation - Exploring how sound is converted into digital files through the use of ASCII.
Year 8 HT4	iMedia Unit - Students explore the relevance and use of vector graphics. Students then create a variety of illustrations and logos.
Year 8 HT5	MicroPython - Students will familiarize themselves with text based programming using the MU Editor, which will allow them to explore and create their own programs to be displayed on Micro:Bit.
Year 8 HT6	Students explore web development with HTML and CSS, with an end goal of creating their own themed website.
Year 9 HT1	Cyber Security - Students explore the risks of social engineering and malware, and the impact it has on society.
Year 9 HT2	Further Data Representation - Students explore how sound is converted and produced digitally, and the idea of machine learning and teaching AI.
Year 9 HT3	Python Programming - Students use a text based editor to create python programs, demonstrating understanding of programming structures - sequence, selection and iteration .
Year 9 HT4	iMedia Unit - Students explore graphic design software and tools to create their own graphics for use in websites and printed media.
Year 9 HT5	Further Python Programming - Students deepen their learning of Python by exploring lists, string manipulation and functions. Understanding demonstrated by completing a programming project.
Year 9 HT6	iMedia Unit - Students look into rules of photography, photography basics and the use of equipment and software to create a portfolio of photos.