Year 7	HT1 E-Safety and File & Folder Management	HT2 Logic & Problem Solving Flowcharts & Programming	HT3 DeltaFest Project (Productivity & Graphics)	HT4 DeltaFest Project (Productivity & Graphics)	HT5 Computer Hardware & Introduction to Binary	HT6 Physical Computing using Microbits
Knowledge	During this first unit, students will log on and be introduced to the acceptable usage policy of the school. They will learn how to keep safe online, how to store and retrieve information stored on the network, send and receive emails and practice professional acturate typing.	Student will learn what is meant by the term computational thinking and prepare for this years' Bebras challenge. They will learn the basics of computer programming using a block programming language called EduBlocks, to prepare them for a text-based language, Python, in Year 8	Students will spend this half-term planning for an imaginary music festival—Delta Fest. They will learn how to prepare for the music event, in terms of creating a flyer to promote the event, create a letter to be sent to potential investors and use a spreadsheet to keep track of the costs of running the event and potential income.	Students will spend this half-term planning for an imaginary music festival—Delta Fest. They will learn how to prepare for the music event, in terms of creating a flyer to promote the event, create a letter to be sent to potential investors and use a spreadsheet to keep track of the costs of running the event and potential income.	Students will learn some of the basic components of a computer: how information is input, output, stored and processed. Following this they will learn how a computer can represent information with nothing other than ones and zeroes.	Building upon the programming learned during half-term 2, students will apply their knowledge to create a program which they can interact with physically, using the Micro:bit.
Skills/Concepts	Using social media safely is an important skill. Students will be taught good practice and the dangers to be aware of as one of the first topics in the Computing curriculum.	In these introductory lessons, students will learn some of the fundamentals of computer programming.	Computing includes digital literacy and so this early module introduces the students to some common productivity tools they will likely use across school and in their future careers	Computing includes digital literacy and so this early module introduces the students to some common productivity tools they will likely use across school and in their future careers.	Students will learn some of the basic components of a computer: how information is input, output, stored and processed. Following this they will learn how a computer can represent information with nothing other than ones and zeroes.	This sequence builds upon the programming work done during half-term 2 and gets students practiced in solving problems by writing a computer program.
Links to Prior Learning	Students will have been taught basic computing skills at Primary school and will already be aware of some online safety issues	Students will learn how basic day-to-day activities can be broken down into key steps. Students will have had previous exposure to block based programming at Primary School	Students will have had prior experience of creating promotional posters and writing letters at Primary School	Students will have had prior experience of creating promotional posters and writing letters at Primary School	Students will have learned the basic concept of binary meaning on and off	Students build on the theoretical understanding gained during Half Term 2
Assessment	Assessment based on HT1/HT2 topics at end of HT2	Assessment based on HT1/HT2 topics at end of HT2	No Assessment	No Assessment	Assessment based on HT5/HT6 topics at end of HT6	Assessment based on HT5/HT6 topics at end of HT6
National Curriculum Links	Bullet Point 9	Bullet Point 1,3	Bullet Point 7,8	Bullet Point 7,8	Bullet Point 4,5	

Year 8	HT1	HT2	HT3	HT4	HT5	HT6
	E-Safety, Internet & WWW History and Networks	Logic & Problem Solving PixelArt & Bitmap Images	EduBlocks & Python Programming	Key Figures of Computing	HTML Web Unit	Physical Computing - Microbits & Robots
Knowledge	Students will learn about how to stay safe online and be aware of the risks of communicating through social media. Students will then learn about the history of the Internet & World Wide Web including the difference between LAN/WAN Networks	Students will learn what is meant by the term computational thinking and prepare for this years' Bebras challenge. They will learn how images are constructed using pixels and create their own piece of PixelArt. Students will also investigate Bitmap graphics	Students will learn about the Python programming language using the EduBlocks website. Students will be able to learn how to code using a block approach and understand the Python syntax. Students will tackle challenges and create programmable solutions to problems.	Students will learn about key inspirational people from the world of Computer Science. They will learn about how they became involved in computer science and the impact they made to the world of technology.	Students will learn how web pages are developed using the HTML language. Students will design and create a web site based on a key theme and learn how to use the HTML language to develop modern interactive websites	Building upon the programming learned during half-term 2 & year 7, students will apply their knowledge to create a program which they can interact with physically, using the Micro:bit and also physical robots.
Skills/Concepts	Using social media safely is an important skill. Students will be taught good practice and the dangers to be aware of as one of the first topics in the Computing curriculum.	Students will learn valuable problem solving skills and be able to show their creativity using PixelArt	Students will gain skills in decomposition (breaking problems down) and learn how programs are sequenced. Students will learn key terminology used in programming languages.	Students will learn that people from different backgrounds, countries and genders have made a major impact on society and the student's lives	Students will learn HTML, CSS and Javascript to be able to develop a website that meets modern standards. Students will be aware of key design decisions that make a website successful.	This sequence builds upon the programming work done during half-term 2 and gets students practiced in solving problems by writing a computer program.
Links to Prior Learning	Students will build on their previous learning from Year 7, understanding the risks of Online use and their awareness of the concept of the Internet	Students will learn how basic day-to-day activities can be broken down into key steps. Students will already have experiences of editing images	Students will have had prior understanding of block programming environments and problem solving skills from Year 7.	Students will be aware of some key figures from popular culture and previous Year 7 lessons	Students will be aware of good features of websites and how to interact with websites	Students build on the theoretical understanding gained during Half Term 2
Assessment	Assessment based on HT1/HT2 topics at end of HT2	Assessment based on HT1/HT2 topics at end of HT2	No Assessment	No Assessment	Assessment based on HT5/HT6 topics at end of HT6	Assessment based on HT5/HT6 topics at end of HT6
National Curriculum Links	Bullet Point 9		Bullet Point 3			Bullet Point 1

Year 9	HT1	HT2	HT3	HT4	HT5	HT6
	Online Reputation & Prevent Binary, Hex & Character Sets	ICT Option Block & Searching and Sorting Algorithms	Python Programming	History of Computing	CyberSecurity	Minecraft EDU
Knowledge	Students will learn about how to stay safe online and be aware of the risks of communicating through social media including the risks of radicalisation through social networking and how to report it. Students will also learn about Binary, Hexadecimal, ASCII & Unicode Charactersets	Students will focus on a key area of the ICT curriculum chosen for it's links to Key Stage 4 courses. Students will also learn about Searching and Sorting algorithms. They will understand how computers organise and search through data on their device.	Students will build on their Python skills developed in Year 8 and move to fully typed Python programming. They will implement key programming constructs Sequence, Selection and Iteration	Students will be taken on a journey of the history of computing from 1940 to 2000. Students will learn about the key figures involved in the advancement of technology and the major developments of each decade.	Students will learn about the threats involved in online Cyber Crime. Students will tackle challenges designed to test their analytical and problem solving skills to identify a prolific cyber criminal	Students will explore the world of Minecraft learning how to apply computational thinking skills within the block environment and develop their Python programming skills to automate world creation.
Skills/Concepts	Using social media safely is an important skill. Students will be taught good practice and the dangers to be aware. Students will also learn how to use Binary addition and convert to and from Hexadecimal	The skills developed in this unit will be directly transferrable to Key Stage 4. Students will be able to apply different searching and sorting algorithms to be able to process data quickly and efficiently	Students will be able to use Inputs, Outputs and different Data Types. Students will use different data structures to be able to manipulate data for a given purpose	Students will be able to reflect on the impact each decade has had on their current lifestyle. What inventions have led to the technology they take for granted.	Students will learn about information gathering, data analysis, pattern recognition and problem solving	Students will develop their problem solving skills and express their creativity to create virtual worlds that amaze.
Links to Prior Learning	Students will build on their previous learning from Year 7 & 8, understanding the risks of Online use and their awareness of the concept of the Internet	Students will build on key skills developed so far in the KS3 curriculum	Students will build upon their knowledge of EduBlock Python in Year 8 and move towards typing their code fully.	Students will build on their knowledge of key figures from Year 8 and also their own understanding of how technology has developed	Student's previous work on the BEBRAS challenges will be applied to real life cases	Students will call upon their problem solving skills and their Python programming knowledge to create impressive worlds
Assessment	Assessment based on HT1/HT2 topics at end of HT2	Assessment based on HT1/HT2 topics at end of HT2	No Assessment	No Assessment	Assessment based on HT5/HT6 topics at end of HT6	Assessment based on HT5/HT6 topics at end of HT6
National Curriculum Links	Bullet Point 4,6,9	Bullet Point 2	Bullet Point 3			