



ICT/CS Curriculum and Assessment Map

	Half Term 1	Half-Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 8	ESafety Introduction to Computer Systems	Introduction to Networks	Intro to Python programming	Data Representations: from clay to silicon	Modelling Data – Spreadsheets	Media Animation
Fundamental Knowledge	<p>eSafety: Understand the risks of the Internet and how to stay safe online.</p> <p>Understand a range of ways to use technology safely, respectfully, responsibly and securely. Understand how to protect online identity and privacy. Recognise inappropriate content, contact and conduct and know</p>	<p>Imagine a world without computer networks, and how different your life would be. There would be no more YouTube, Google, instant messaging, online video gaming, Netflix, and iTunes. There would be no online shopping, or quickly looking up directions to a location at the click of a button. There would be no more sharing of files or</p>	<p>This unit introduces learners to text-based programming with Python. The lessons form a journey that starts with simple programs involving input and output, and gradually moves on through arithmetic operations, randomness, selection, and iteration. Emphasis is placed on tackling common misconceptions and</p>	<p>This unit conveys essential knowledge relating to binary representations. The activities gradually introduce learners to binary digits and how they can be used to represent text and numbers. The concepts are linked to practical applications and problems that the learners are familiar with.</p> <p>Progression The fundamental concepts around</p>	<p>The spreadsheet unit for Year 8 takes learners from having very little knowledge of spreadsheets to being able to confidently model data with a spreadsheet. The unit uses engaging activities to progress learners from using basic formulas to writing their own COUNTIF statements. This unit will give learners a good set of skills that they can use in computing lessons and in other subject areas.</p> <p>Progression</p>	<p>Films, television, computer games, advertising, and architecture have been revolutionised by computer-based 3D modelling and animation. In this unit learners will discover how professionals create 3D animations using the industry-standard software package, Blender. By completing this unit learners will gain a greater understanding of how this important</p>

	<p>how to report concerns</p> <p>Computer systems:</p> <p>Understand the components of a computer system – inputs, process, outputs, storage.</p> <p>Understand how a computer processes information</p> <p>Understand the role a hardware in the computer system.</p> <p>Know the different input devices, output devices and storage devices and explain how they work and where they are used.</p>	<p>peripherals such as a printer, and no more central backups of information. As networks have evolved, society has become increasingly reliant on the services that they provide. They have changed the way we learn, work, play, and communicate. This unit begins by defining a network and addressing the benefits of networking, before covering how data is transmitted across networks using protocols. The types of hardware required are explained, as is wired and wireless data transmission. Learners will develop an understanding of the terms ‘internet’ and ‘World Wide Web’, and of the key services and protocols used. Practical exercises are included</p>	<p>elucidating the mechanics of program execution.</p> <p>A range of pedagogical tools is employed throughout the unit, with the most prominent being pair programming, live coding, and worked examples.</p>	<p>binary representations and the way in which they have been approached in this unit are visualised in the concept map. This can be found in Lesson 1: Across time and space.</p>	<p>This unit progresses learners’ knowledge and understanding of modelling data using a spreadsheet. Due to the transitional nature of Year 7, the unit assumes that learners have little to no experience of using spreadsheets.</p>	<p>creative field is used to make the media products that we consume. Sessions will take learners through the basics of modelling, texturing, and animating; outputs will include 3D models, short videos, and VR. Links are made throughout to computer science, computational thinking, and the world of work. Tools and techniques learnt in this unit can also be used for 3D printing.</p>
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		<p>throughout to help strengthen understanding.</p> <p>Progression</p> <p>This unit progresses students' knowledge and understanding of networks and associated hardware. The unit will establish a foundation understanding of how data is transmitted across networks, as well as exploring the factors that can affect performance. The unit will spend time focussing on the internet and services provided over the internet.</p>				
Learning Checkpoint Tasks	LC1 – mini test	LC2 – mini test	LC3 – remote learning assignment	LC4 – inputs/outputs test	End of unit assessment	End of unit assessment
Common Assessment Task	TA1		TA2		TA3	

Mock Exam (if applicable)	N/A	N/A	N/A
Interleaved Knowledge	How to use ICT safely and appropriately in and out of school (passwords, social media, email, digital footprint)	This builds on knowledge gained in HT1 – ensuring organisation of folders, selecting appropriate and reliable information to incorporate into projects, whilst always maintaining safety in online use.	This builds on knowledge gained in half term 1 and 2 – selecting and using appropriate images from reliable sources and using digital graphics skills in order to edit into an appropriate way.