

Computing Unit plan	
Vision statement (habit 1) A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. In our school, we believe that pupils should be given the opportunity to develop a rich and deep subject knowledge through the enjoyment, experience and challenge of learning; enabling them to understand the value of their learning and preparing them for their future in an ever changing workplace. Within the computing curriculum, it is our aim is to prepare our pupils to participate in this rapidly changing world. We recognise that computing is an important tool in both the society we live in and in the process of teaching and learning. We aim to close the gap between advantaged and disadvantaged children by providing exciting opportunities which will open up their horizons. The teaching of computing will give pupils the opportunities to learn how to employ computing to enable rapid access to ideas and experiences from a wide range of sources. They will be able to understand and apply the essential principles and concepts of Computer Science, evaluate and apply information technology analytically to solve problems and communicate ideas well. In a world immersed in technology, every school-leaver should have an understanding of computing. It is our vision that when a child leaves our school, they will know how to be responsible, competent, confident and creative digital citizens.	
Domains of knowledge (habit 2) Key concept (habit 2) Programming Programming –Algorithms (interpret, create and purpose of), decomposition, abstraction, pattern recognition, Data representation E-Safety Understanding technology – hardware, software, CPU, Computer parts, computer inputs, computer outputs, memory, Tim encryption, authentication	debugging, selection, Understanding technology commands, output of an algorithm, input in an algorithm, variables, logical reasoning Berners-Lee, Digital Literacy Von Neumann, operating systems, world wide web, internet, search engines, wireless, protocols, Data representation – calculations, spreadsheets, data collection, tables, graphs, manipulating data E-Safety - online responsibility, cyber-bullying, impact of digital media, privacy, personal information, reporting, content and contact Digital Literacy – file storage, presentation, impact on audience, evaluating, effective communication, Microsoft office, biased/ unbiased information, fake news, searching online, copyright, legislation, accuracy
Resources Teach Computing Unit Purple Mash MrPICT Beebots BigTrak Y1/2 PiXL eSafety lessons Y3-6 Internet Legends (eSafety lessons)	

Year 1											
Autumn Term				Spring Term 1		Spring Term 2		Summer Term 1		Summer Term 2	
Unit Title Safe and Responsible	Unit Length 6 weeks	Unit Title Creating Media	Unit Length 6 weeks	Unit Title Understanding Technology	Unit Length 6 weeks	Unit Title Algorithms	Unit Length 6 weeks	Unit Title Coding	Unit Length: 6 weeks	Unit Title Data	Unit Length: 5 weeks
Domain (habit 2) E-Safety		Domain (habit 2) Digital Literacy		Domain (habit 2) Understanding technology		Domain (habit 2) Programming		Domain (habit 2) Programming		Domain (habit 2) Data representation	
Key concepts (habit 2) reporting, impact of digital media		Key concepts (habit 2) file storage, presentation, effective communication		Key concepts (habit 2) Hardware, Computer parts, wireless, authentication		Key concepts (habit 2) Algorithms (interpret, create and purpose of), decomposition, commands, output of an algorithm		Key concepts (habit 2) selection, commands, output of an algorithm, input in an algorithm		Key concepts (habit 2) manipulating data, tables, data collection	
Relevant end points (habit 3) <i>Be able to develop critical thinking skills in everyday use of online communication by developing their knowledge and understanding of the pros and cons that online communication poses</i>		Relevant end points (habit 3) <i>Be able to make informed choices when choosing software to design and create digital content in an effective and professional manner</i>		Relevant end points (habit 3) <i>Be able to explain the different hardware in computers and how they work together</i>		Relevant end points (habit 3) <i>Develop pupils logical reasoning through increasingly challenging problems by developing their background knowledge and accurate knowledge of algorithms</i>		Relevant end points (habit 3) <i>To be able to use a computer program to design and write code for increasingly challenging purposes</i>		Relevant end points (habit 3) <i>Be able to select appropriate applications to devise, construct and manipulate data and present it to an appropriate audience</i>	
Broken down and sequenced knowledge (habit 4) <i>To know how to identify different devices that can go online, and separate those that do not</i> <i>To know that there are rules around e-safety and know who to tell if something concerns them online</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to complete simple tasks on a computer by following instructions</i> <i>To know that information can be presented in different ways (e.g. pictures, text, video, games)</i>		Broken down and sequenced knowledge (habit 4) <i>To know how and when ICR (intelligent character recognition) is used in everyday life</i> <i>To identify a computer and its main parts.</i>		Broken down and sequenced knowledge (habit 4) <i>To know that a sequence is the following of one thing after another.</i> <i>To know how to express everyday tasks as a series of steps (making a jam sandwich).</i> <i>Give simple instructions to everyday devices to make things happen</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to run a command on a device (Beebots/ Scratch Junior)</i> <i>To know how to combine forwards and backwards commands to make a sequence</i> <i>To know how to combine four direction commands to make sequences</i> <i>To know how to plan a simple program</i>		Broken down and sequenced knowledge (habit 4) Know how to put data into a program (Pictogram/ groups) sort objects and pictures in lists or simple table	
PiXL eSafety lessons		Creating Media – Digital Painting https://paintz.app/ or PM 2 Paint Creating Media – Digital Writing <i>Google Docs/Google Slides or PM 2Publish</i>		Computing Systems and Networks – Technology all around us https://paintz.app/		Programming A – Moving a Robot Beebots		Programming B – Introduction to Animation <i>Scratch Junior</i>			
		Unit 1.6 – Animated Story Books <i>2Create a Story</i>		Unit 1.9 - Technology Outside school, lesson 1		Unit 1.4 Lego builders		Unit 1.5 – Maze Explorers 2Go Unit 1.7 – Coding 2Code		Unit 1.2 – Grouping & Sorting <i>2Do it Yourself</i> Unit 1.3 – Pictograms	

Year 2											
Autumn Term 1 (8 weeks)		Autumn Term 2 (7 weeks)		Spring Term 1		Spring Term 2		Summer Term 1		Summer Term 2	
Unit Title Safe and Responsible	Unit Length 6 weeks	Unit Title Creating media	Unit Title Algorithms	Unit Title Understanding Technology	Unit Length 6 weeks	Unit Title Algorithms	Unit Length 6 weeks	Unit Title Coding	Unit Length: 6 weeks	Unit Title Data	Unit Length: 5 weeks
Domain (habit 2) E-Safety		Domain (habit 2) Digital Literacy		Domain (habit 2) Understanding technology		Domain (habit 2) Programming		Domain (habit 2) Programming		Domain (habit 2) Data representation	
Key concepts (habit 2) personal information, reporting, content and contact, online responsibility, privacy		Key concepts (habit 2) Presentation, file storage, effective communication, Microsoft office file, fake news, searching online		Key concepts (habit 2) hardware, software, CPU, Computer parts, wireless, protocols		Key concepts (habit 2) Algorithms (interpret, create and purpose of), decomposition, logical reasoning, output of an algorithm, input in an algorithm		Key concepts (habit 2) Abstraction, selection, commands, output of an algorithm, input in an algorithm		Key concepts (habit 2) data collection, tables, manipulating data	
Relevant end points (habit 3) <i>Be able to develop critical thinking skills in everyday use of online communication by developing their knowledge and understanding of the pros and cons that online communication poses</i>		Relevant end points (habit 3) <i>Be able to make informed choices when choosing software to design and create digital content in an effective and professional manner</i>		Relevant end points (habit 3) <i>Be able to explain the different hardware in computers and how they work together</i> <i>Be able to understand different networks in a variety of contexts by developing knowledge and understanding of the value and dangers</i>		Relevant end points (habit 3) <i>Develop pupils logical reasoning through increasingly challenging problems by developing their background knowledge and accurate knowledge of algorithms</i>		Relevant end points (habit 3) <i>To be able to use a computer program to design and write code for increasingly challenging purposes</i>		Relevant end points (habit 3) Be able to select appropriate applications to devise, construct and manipulate data and present it to an appropriate audience	
Broken down and sequenced knowledge (habit 4) <i>To know that personal information should be kept private.</i> <i>To know how to communicate safely, respecting and considering other people's feelings online.</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to identify obviously false information in a variety of contexts.</i> <i>To know how to organise, store, manipulate and retrieve data in a range of digital formats.</i> <i>To know how to use an increasing range of software on the computers/ ipads (e.g. 2simple, word, paint, skitch, book creator)</i>		Broken down and sequenced knowledge (habit 4) <i>To know what information technology is</i> <i>To know how information technology is used beyond school.</i> <i>To recall and understand the different parts of a computer.</i> <i>To know that a computer network can be used to share information</i> <i>To know that information can be organised in folders on a network</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to express everyday real life systems as a series of steps (A traffic light).</i> <i>To know that programs are a sequence of algorithms and algorithms are a set of instructions</i> <i>To know what happens when we change the order of instructions</i> <i>To know how to use logical reasoning to predict the outcome of a program (series of commands)</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to create a program using a given design</i> <i>To know how to change a given design</i> <i>To know how to create a program using my own design</i> <i>To know how to build sequences of blocks to match my design</i> (Scratch Junior)		Broken down and sequenced knowledge (habit 4) Know that technology can be used to represent data Know how to make a simple Y/N tree diagram to sort information.	
		Creating Media – Digital Photography <i>Digital camera device; https://pixlr.com/x/</i>		Computing Systems and Networks – IT all around us <i>Unplugged/Google Slide sorting activity</i>		Programming A – Robot Algorithms Big Traks		Programming B – An introduction to Quizzes <i>Scratch Junior</i>		Data and Information – Pictograms <i>2Count</i>	
		Unit 2.6 - Creating Pictures <i>2Paint a Picture</i> Unit 2.7 - Making Music <i>2Sequence</i>		Unit 1.9 – Technology Outside School				Unit 2.1 – Coding <i>2Code</i>		Unit 2.4 – questioning	

Year 3											
Autumn Term 1		Autumn Term 2		Spring Term 1		Spring Term 2		Summer Term 1		Summer Term 2	
Unit Title Safe and Responsible	Unit Title 6 weeks	Unit Title Algorithms	Unit Length 6 weeks	Unit Title Creating media	Unit Title 6 weeks	Unit Title Understanding Technology	Unit Length 6 weeks	Unit Title Coding	Unit Length: 6 weeks	Unit Title Data	Unit Length: 5 weeks
Domain (habit 2) E-Safety		Domain (habit 2) Programming		Domain (habit 2) Digital Literacy		Domain (habit 2) Understanding technology		Domain (habit 2) Programming		Domain (habit 2) Data representation	
Key concepts (habit 2) online responsibility, impact of digital media, personal information, reporting, content and contact		Key concepts (habit 2) Algorithms (interpret, create and purpose of), decomposition, abstraction, logical reasoning, debugging		Key concepts (habit 2) file storage, effective communication, Microsoft office, searching online, accuracy		Key concepts (habit 2) hardware, computer inputs, computer outputs, memory, wireless, protocols, encryption, authentication		Key concepts (habit 2) Algorithms (create), abstraction, pattern recognition, debugging, selection, commands, output of an algorithm, input in an algorithm, logical reasoning		Key concepts (habit 2) data collection, tables, manipulating data	
Relevant end points (habit 3) <i>Be able to develop critical thinking skills in everyday use of online communication by developing their knowledge and understanding of the pros and cons that online communication poses</i>		Relevant end points (habit 3) <i>Develop pupils logical reasoning through increasingly challenging problems by developing their background knowledge and accurate knowledge of algorithms</i>		Relevant end points (habit 3) <i>Be able to make informed choices when choosing software to design and create digital content in an effective and professional manner</i>		Relevant end points (habit 3) <i>Be able to explain the different hardware in computers and how they work together</i> <i>Be able to understand different networks in a variety of contexts by developing knowledge and understanding of the value and dangers</i>		Relevant end points (habit 3) <i>To be able to use a computer program to design and write code for increasingly challenging purposes</i>		Relevant end points (habit 3) Be able to select appropriate applications to devise, construct and manipulate data and present it to an appropriate audience	
Broken down and sequenced knowledge (habit 4) <i>To know what having a positive digital footprint means</i> <i>Identify ways to keep safe when using ICT.</i> <i>To know that there are consequences when sending/posting.</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to use logical reasoning to explain how a simple algorithm works.</i> <i>To know that a loop is a sequence that can be executed many times.</i> <i>To know how to use a loop in an algorithm</i> <i>To know how to trace and debug linear algorithms with loops</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to use different approaches to search and retrieve digital information, including the browser address bar and shortcuts.</i> <i>To know that presentation software is used to complete a given task.</i>		Broken down and sequenced knowledge (habit 4) <i>Know that computer systems and hardware use input and output devices used in everyday life.</i> <i>To know how a computer network can be used to share information</i> <i>To know the physical components of a network</i> <i>To know that digital devices can be connected to a network</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to create a program to move a device in four directions (BigTrak)</i> <i>To know how to adapt a program to a new context</i> <i>To know how to develop my program by adding features</i> <i>To know how to identify and fix bugs in a program</i>		Broken down and sequenced knowledge (habit 4) Know how to design questionnaires to collect information Create graphs to display data and answer questions	
		Programming A – Sequence in Music <i>Scratch</i> Programming B – Events and Actions <i>Scratch</i>		Creating Media – Animation <i>iMotion</i>		Computing Systems and Networks – Connecting Computers		Programming B – Events and Actions <i>Scratch</i>			
				Unit 4.6 – Animation <i>2Animate</i> Unit 2.8 – Presenting Ideas <i>2Create a Story</i> <i>2Connect</i>						Unit 3.8 - Graphing	

Year 4											
Autumn Term 1		Autumn Term 2		Spring Term 1		Spring Term 2		Summer Term 1		Summer Term 2	
Unit Title Safe and Responsible	Unit Length 6 weeks	Unit Title Creating media	Unit Length 6 weeks	Unit Title Algorithms	Unit Length 6 weeks	Unit Title Data	Unit Length 6 weeks	Unit Title Coding	Unit Length: 6 weeks	Unit Title Understanding Technology	Unit Length: 5 weeks
Domain (habit 2) E-Safety		Domain (habit 2) Digital Literacy		Domain (habit 2) Programming		Domain (habit 2) Data representation		Domain (habit 2) Programming		Domain (habit 2) Understanding technology	
Key concepts (habit 2) online responsibility, impact of digital media, privacy, reporting, content and contact		Key concepts (habit 2) file storage, presentation, impact on audience, evaluating, effective communication, Microsoft office, information, fake news, searching online, accuracy		Key concepts (habit 2) Algorithms (create), abstraction, pattern recognition, debugging, output of an algorithm, input in an algorithm, variables, logical reasoning		Key concepts (habit 2) data collection, tables, manipulating data		Key concepts (habit 2) debugging, commands, output of an algorithm, input in an algorithm, variables, logical reasoning		Key concepts (habit 2) computer inputs, computer outputs, memory, Tim Berners-Lee, world wide web, internet, wireless, protocols, encryption, authentication	
Relevant end points (habit 3) <i>Be able to develop critical thinking skills in everyday use of online communication by developing their knowledge and understanding of the pros and cons that online communication poses</i>		Relevant end points (habit 3) <i>Be able to make informed choices when choosing software to design and create digital content in an effective and professional manner</i>		Relevant end points (habit 3) <i>Develop pupils logical reasoning through increasingly challenging problems by developing their background knowledge and accurate knowledge of algorithms</i>		Relevant end points (habit 3) Be able to select appropriate applications to devise, construct and manipulate data and present it to an appropriate audience		Relevant end points (habit 3) <i>To be able to use a computer program to design and write code for increasingly challenging purposes</i>		Relevant end points (habit 3) <i>Be able to explain the different hardware in computers and how they work together</i> <i>Be able to understand different networks in a variety of contexts by developing knowledge and understanding of the value and dangers</i>	
Broken down and sequenced knowledge (habit 4) <i>To know how to identify potential risks when presented with scenarios, including social networking profiles.</i>		Broken down and sequenced knowledge (habit 4) <i>Use and combine a variety of software and internet services (e.g. book creator, iMovie, Garage band)</i> <i>To know how to evaluate the quality and success of their solutions</i> <i>To know how to evaluate the reliability of content and the consequences of unreliable content including adverts and fake news</i> <i>Know how to use software or search engines effectively.</i>		Broken down and sequenced knowledge (habit 4) <i>To know that non-Linear algorithms include variables (Understand the purpose of input and output)</i> <i>To know how to use non-Linear algorithms that include variables</i> <i>To know how to trace and debug non-linear algorithms</i> <i>To know how to create flowcharts and other diagrams to explain how a process or model works.</i>		Broken down and sequenced knowledge (habit 4) Know the difference between data and information. Know how to make a simple branching database to collect and manipulate different types of data.		Broken down and sequenced knowledge (habit 4) <i>To know how to use a block-based programming environment, to create shapes using count-controlled loops. (Scratch)</i> <i>To know that in programming there are infinite loops and count-controlled loops</i> <i>Detect and correct errors in programs (debug).</i> <i>To know how to design a project that includes repetition</i>		Broken down and sequenced knowledge (habit 4) <i>To know how digital devices function</i> <i>To know that the world wide web is part of the internet</i> <i>To know that interconnection of global networks is the internet</i> <i>To know that the world wide web comprises of websites and webpages</i>	
		Creating Media – Audio Editing <i>Audacity</i> Creating Media – Photo Editing <i>paint.net</i>		Programming A – Repetition in Shapes <i>PM</i> <i>Logo</i>		Y3 Data and Information – Branching Databases <i>2Question</i>		Programming B – Repetition in games		Computing Systems and Networks – The Internet <i>Online services</i>	
		Unit 4.9 – Making Music				Unit 3.6 – Branching databases		Unit 4.1 – Coding <i>2Code</i>			

Year 5											
Autumn Term 1		Autumn Term 2		Spring Term 1		Spring Term 2		Summer Term 1		Summer Term 2	
Unit Title Safe and Responsible	Unit Length 6 weeks	Unit Title Algorithms	Unit Length 6 Weeks	Unit Title Data	Unit Length 6 Weeks	Unit Title Coding	Unit Length 6 Weeks	Unit Title Understanding Technology	Unit Length: 6 Weeks	Unit Title Creating Media	Unit Length: 5 Weeks
Domain (habit 2) E-Safety		Domain (habit 2) Programming		Domain (habit 2) Data representation		Domain (habit 2) Programming		Domain (habit 2) Understanding technology		Domain (habit 2) Digital Literacy	
Key concepts (habit 2) online responsibility, cyber-bullying, impact of digital media, privacy,		Key concepts (habit 2) decomposition, abstraction, pattern recognition, debugging, variables, logical reasoning		Key concepts (habit 2) calculations, spreadsheets, data collection, tables, graphs, manipulating data		Key concepts (habit 2) Algorithms (interpret, create and purpose of), decomposition, abstraction, debugging, selection, commands, output of an algorithm, input in an algorithm, variables, logical reasoning		Key concepts (habit 2) hardware, CPU, computer inputs, computer outputs, memory, Tim Berners-Lee, operating systems, wireless, protocols, encryption, authentication		Key concepts (habit 2) file storage, presentation, impact on audience, evaluating, effective communication, Microsoft office,	
Relevant end points (habit 3) Be able to develop critical thinking skills in everyday use of online communication by developing their knowledge and understanding of the pros and cons that online communication poses		Relevant end points (habit 3) Develop pupils logical reasoning through increasingly challenging problems by developing their background knowledge and accurate knowledge of algorithms		Relevant end points (habit 3) Be able to select appropriate applications to devise, construct and manipulate data and present it to an appropriate audience		Relevant end points (habit 3) To be able to use a computer program to design and write code for increasingly challenging purposes		Relevant end points (habit 3) Be able to explain the different hardware in computers and how they work together Be able to understand different networks in a variety of contexts by developing knowledge and understanding of the value and dangers		Relevant end points (habit 3) Be able to make informed choices when choosing software to design and create digital content in an effective and professional manner	
Broken down and sequenced knowledge (habit 4) To know how to evaluate different ways of working together To know how to judge what sort of privacy settings might be relevant for reducing different risks To know what constitutes good behaviour online.		Broken down and sequenced knowledge (habit 4) To know that non-Linear algorithms include Variables and Conditionals (Understand the purpose of if, then and else commands) To know how to use non-Linear algorithms that include variables and conditionals To know how to create flowcharts and other diagrams to explain how a process or model works. To know how to trace and debug non-linear algorithms		Broken down and sequenced knowledge (habit 4) Know what a spreadsheet is and what it is used for. Know how to create data collection forms and enter data from these accurately. Know how to make graphs from the calculations		Broken down and sequenced knowledge (habit 4) To know how to create a program with different outcomes using selection To know how to design the flow of a program which contains 'if... then... else...' To know how to design a program which uses selection To know how to create a program which uses selection (Scratch)		Broken down and sequenced knowledge (habit 4) Know the functions of the processor, memory, backing storage and peripherals in a typical desktop computer To know the physical components of a network To know that computers connect with other devices. To know that data is transferred using agreed protocols (methods) To know the advantages and disadvantages of a network.		Broken down and sequenced knowledge (habit 4) To know how to prepare and present information in a range of forms To use a computer to create a video	
		Programming A – Selection in physical computing		Data and Information – Flat-File databases <i>2Investigate</i>		Programming B – Selection in quizzes				Creating Media – Video Editing <i>Green Screen – Do Ink</i>	
				Unit 5.4 – Databases <i>2Investigate</i>		Unit 5.1 – Coding <i>2Code (Gorilla)</i>		Unit 4.8 – Hardware Investigators			

Year 6											
Autumn Term 1		Autumn Term 2		Spring Term 1		Spring Term 2		Summer Term 1		Summer Term 2	
Unit Title Safe and Responsible	Unit Length 6 weeks	Unit Title Creating Media	Unit Length 6 weeks	Unit Title Understanding technology	Unit Length 6 weeks:	Unit Title Data	Unit Length 6 weeks	Unit Title Algorithms	Unit Length 6 weeks	Unit Title Coding	Unit Length: 5 Weeks
Domain (habit 2) E-Safety		Domain (habit 2) Digital Literacy		Domain (habit 2) (Understanding technology habit 2)		Domain (habit 2) Data representation		Domain (habit 2) Programming		Domain (habit 2) Programming	
Key concepts (habit 2) online responsibility, cyber-bullying, impact of digital media, content and contact		Key concepts (habit 2) presentation, impact on audience, evaluating, effective communication, Microsoft office, biased/ unbiased information, fake news, copyright, legislation, accuracy		Key concepts (habit 2) hardware, software, CPU, memory, operating systems, world wide web, internet, search engines, wireless, protocols, encryption, authentication		Key concepts (habit 2) calculations, spreadsheets, tables, graphs, manipulating data		Key concepts (habit 2) Algorithms (interpret, create and purpose of), decomposition, abstraction, pattern recognition, debugging, selection, commands, output of an algorithm, input in an algorithm, variables, logical reasoning		Key concepts (habit 2) Algorithms (interpret, create and purpose of), decomposition, abstraction, pattern recognition, debugging, selection, commands, output of an algorithm, input in an algorithm, variables, logical reasoning	
Relevant end points (habit 3) <i>Be able to develop critical thinking skills in everyday use of online communication by developing their knowledge and understanding of the pros and cons that online communication poses</i>		Relevant end points (habit 3) <i>Be able to make informed choices when choosing software to design and create digital content in an effective and professional manner</i>		Relevant end points (habit 3) <i>Be able to explain the different hardware in computers and how they work together</i> <i>Be able to understand different networks in a variety of contexts by developing knowledge and understanding of the value and dangers</i>		Relevant end points (habit 3) Be able to select appropriate applications to devise, construct and manipulate data and present it to an appropriate audience		Relevant end points (habit 3) <i>Develop pupils logical reasoning through increasingly challenging problems by developing their background knowledge and accurate knowledge of algorithms</i>		Relevant end points (habit 3) <i>To be able to use a computer program to design and write code for increasingly challenging purposes</i>	
Broken down and sequenced knowledge (habit 4) <i>To know that there are pros and cons of online communication</i> <i>To know how to be a critical consumer when online</i>		Broken down and sequenced knowledge (habit 4) <i>To know that the way information is presented can cause an impact on the audience</i> <i>To know how to evaluate and improve presentations in the light of discussion, marking and audience response.</i> <i>To know that linking to content by other people has implications (copyright/ legislation)</i> <i>To know that some information can be biased/ fake</i>		Broken down and sequenced knowledge (habit 4) <i>Know the role of an operating system</i> <i>Know how networks work by describing the types of service offered (e.g. through email, www, ftp and video conferencing).</i> <i>To know about network topologies</i> <i>To know the advantages and disadvantages of a network.</i>		Broken down and sequenced knowledge (habit 4) Know how a spreadsheet can be used in everyday life. Know how to sort and filter data collected using a spreadsheet		Broken down and sequenced knowledge (habit 4) <i>To know how to predict what will happen when variables and rules within a model are changed.</i> <i>To know how to debug non-linear algorithms created by others (games, app, Scratch)</i> <i>To know that algorithm efficiency looks at how long it takes to run an algorithm and how much space is needed.</i> <i>To know how to count steps and optimise an algorithm for efficiency</i>		Broken down and sequenced knowledge (habit 4) <i>To know how to apply knowledge of programming to a new environment</i> <i>To choose how to improve a game by using variables</i> <i>To design a project that builds on a given example</i> <i>To know how to implement the algorithms that have been created</i> <i>(Scratch, Kodu)</i>	
		Creating media – webpage creation		Computing Systems and Networks – Communication <i>Online websites</i>		Data and Information – Spreadsheets <i>Google Sheets or MS Excel</i>				Programming A – Variables in games <i>Scratch</i>	
		Unit 5.6 – 3D Modelling <i>2Animate</i> Unit 6.4 - Blogging		Unit 6.6 – Networks Unit 6.8 - Binary		Unit 6.3 – Spreadsheets <i>2Calculate</i> Unit 6.9 Spreadsheets <i>with MS Excel</i>				Unit 6.1 – Coding <i>2Code/2Chart</i>	

