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New focus concept

Previously introduced concept

Computing Progression Mapping

Nursery

	Topic	Declarative Knowledge	Procedural Knowledge	Vocabulary	Provision
Autumn 1	People - Me and my family	Know that technology exists and shows a curiosity to explore with resources in the classroom. My own personal information and that this is private.	Tell an adult if I am worried about something I have seen.	Computers, iPads, internet, safe, unsafe, technology	Computers, iPads, Beebots, toys with buttons
EYFS: Nursery A1: Me and my family – EY Framework Coverage Understanding the world - ELG: People, culture and communities					
Autumn 2	Places – our community	Know how technology in my classroom is used.	Help adults operate/ turn on simple equipment in the classroom (e.g. iPads, board).	Computers, iPads, internet, safe, unsafe, technology	Computers, iPads, Beebots, toys with buttons
EYFS: Nursery A2: Our community – EY Framework Coverage Understanding the world - ELG: People, culture and communities / ELG: The Natural World					
Summer 2	Building the World	Know how technology in my classroom is used. Talk about safe/ not-safe choices in real life – knowing where to go.	Knowing where to go for help if needed.	Computers, iPads, internet, safe, unsafe, technology	Computers, iPads, Beebots, toys with buttons
EYFS: Nursery Su2: Building the world – EY Framework Coverage Understanding the world - ELG: People, cultures and communities / ELG: The Natural World					

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Computing Progression Mapping

Reception

	Topic	Declarative Knowledge	Procedural Knowledge	Vocabulary	Resources
Autumn 1	People - Me and my family	Develop in interest in computing technology by using age appropriate websites, programs or resources.	Treat technology with respect and open pre-downloaded games.	Computers, iPads, internet, safe, unsafe, technology, mouse, camera, keyboard, screen, on, off	Computers, iPads, Beebots, toys with buttons, computer rich texts, instruction books, old technology
EYFS: Nursery A1: Me and my family – EY Framework Coverage Understanding the world - ELG: People, culture and communities					
Autumn 2	Places – our community	Know how technology is used in my school and in my community (technology hunt)	Use a simple pictogram or set of photos to count and organise information – link with topic. Take a picture on an ipad.	Computers, iPads, internet, safe, unsafe, technology, mouse, camera, keyboard, screen, on, off	Computers, iPads, Beebots, toys with buttons, computer rich texts, instruction books, old technology
EYFS: Nursery A2: Our community – EY Framework Coverage Understanding the world - ELG: People, culture and communities / ELG: The Natural World					
Summer 1 (Project) Code-a-pillar		Know how coding can be used to make a Code-a-pillar complete a journey. Coding is a set of instructions.	Treat technology with respect and take ana active role in storing equipment. Code a Code-a-pillar to travel on a jouney.	Coding, Code-a-pillar, sequence, steps, journey, map, in order, cause and effect, looping	15 Code-a-pillar

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Summer 2	**Building the World**	Talk about good and bad choices in real life, e.g. taking turns, saying kind things, helping others or telling an adult if they are upset	Can play appropriate games on the internet.	Computers, iPads, internet, safe, unsafe, technology, mouse, camera, keyboard, screen, on, off	Computers, iPads, Beebots, toys with buttons, computer rich texts, instruction books, old technology
EYFS: Nursery Su2: Building the world – EY Framework Coverage Understanding the world - ELG: People, cultures and communities / ELG: The Natural World					

Year 1

	Strand	Declarative Knowledge	Procedural Knowledge	Concept	Vocab	Interdisciplinary links
Autumn 1	Digital Literacy	Personal information needs to be kept private. Q: What is private information?	Where to go if I encounter something online that worries me (trusted adults) Q: Where do I go if I need help online?	Personal Information Online Safety	Private Personal information Online	PSHE links – personal information and trusted adults.
	Computer Science					
	Information technology					
NC Link		Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Use technology safely and respectfully, keeping personal information private; identify where to go for help and support			

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			when they have concerns about content or contact on the internet or other online technologies.			
Autumn 2	Digital Literacy	Recognise and give examples of common uses of IT that they encounter in daily lives. Looking at iPads, computers etc. Q: What technology do I use every day?	Use an iPad to play and age appropriate, educational game. Q: What games are suitable to play?	Everyday technology	Technology, computers, iPads, machines, laptops	
	Computer Science					
	Information technology					
NC link		Recognise common uses of information technology beyond school	Recognise common uses of information technology beyond school Use technology purposefully to create, organise, store, manipulate and retrieve digital content			
Spring 1	Digital Literacy					
	Computer Science	Computers need instructions to work (using BeeBots to explore). Instructions need to be clear (taught without computers).	Create simple algorithms to solve a problem using BeeBots.	Computer programming using BeeBots.	Instructions, Beebots, Algorithm, Coding	English links – instruction writing.

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		Q: What makes a good set of instructions?	Q: How do the BeeBots know what to do?			
	Information technology					
NC link		Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs			
Spring 2	Digital Literacy	It is important to listen to your feelings when using technology. How to stay safe when visiting website or app. Q: How is staying safe online to staying safe in the real world?		Online Safety	Private Personal information Online Emotions	
	Computer Science					

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	Information technology					
NC link		Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.				
Summer 1	Digital Literacy	Online communities – what do we share, how do we stay safe, where do we go for help. Private information should be kept to myself online. Q: How are online communities different from 'real' communities?	Engage respectfully with other peoples work (done offline). Q: Why is it important to be respectful?	Online Safety	Private Personal information Online Community	
	Computer Science		Create simple algorithms to solve problems in a game setting (BeeBots – iPads) Q: Can you predict what is going to happen if we change …?	Coding	Instructions, Beebots, Algorithm, Coding	
	Information technology					
Summer 1 Project (Irobot Root			Create simple algorithms to solve a problem using Irobot	Coding	Instruction, debugging, sequence, outcome, Root,	

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Computing Progression Mapping

Coding Robot)			Begin to use logical debugging skills when using the iRobot and explain these verbally Use coding to achieve a specific goal		functions, respond, coding	
NC link		Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs			
Summer 2 PROJECT TBC	Digital Literacy					
	Computer Science					
	Information technology					
NC link			Use technology purposefully to create,			

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Computing Progression Mapping

			organise, store, manipulate and retrieve digital content			

Year 2

	Strand	Declarative Knowledge	Procedural Knowledge	Concept	Vocab	Interdisciplinary links
Autumn 1	Digital Literacy	Personal information needs to be kept private and understand the difference between friends at school and 'friends' online. That people have an online identity. Q: What is an online identity?	Where to go if I encounter something online that worries me (adults at home or school). Q: Who can I tell if I need help online?	Personal Information Online Safety Online Identity	Personal information, online identity, online friends	PSHE
	Computer Science					
	Information technology					
NC Link		Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.			

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Computing Progression Mapping

Autumn 2	Digital Literacy	Recognise and give examples of common uses of IT beyond the school. Looking at computers used in different settings and their role in different industries (e.g. robots in hospitals). Q: How is technology used outside of school?	Use an iPad to log into and play age appropriate, educational game. Q: How do you know if a game is suitable to play? What do you do if you're not sure?	Uses of computers	Information technology, computers, robots, humanoids	
	Computer Science					
	Information technology					
NC link		Recognise common uses of information technology beyond school	Recognise common uses of information technology beyond school Use technology purposefully to create, organise, store, manipulate and retrieve digital content			
Spring 1	Digital Literacy					
	Computer Science	Computers work by following algorithms. Algorithm need to be clear and concise (using A.L.E.X to explore). Algorithms are a set of instructions.	Create and debug simple programs (A.L.E.X). How to save work after each function iteration.	Coding	Coding, algorithms, debugging, functions, logical reasoning, concise, predictions	Science link with robots – possible opportunity for a trip or visitor.

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Computing Progression Mapping

		Logical reasoning is applying rules to problem solving and can be used to make predictions. Q: What is an algorithm?	Use logical reasoning to predict the behavior of BeeBots and explain this. Q: What is logical reasoning? What does it help with?			
	Information technology					
NC link		Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behavior of simple programs			
Spring 2	Digital Literacy	All information that you see online leaves a digital trail – what information is okay to view?		Online Safety	Personal information, online identity, online friends	

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Computing Progression Mapping

		Q: What is a digital trail? Is it important?				
	Computer Science					
	Information technology		Use an iPad to search for a video, take a photo, scan a QR code. Q: How can we use an iPad to help us with our learning?			
NC link		Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Recognise common uses of information technology beyond school Use technology purposefully to create, organise, store, manipulate and retrieve digital			
Summer 1	Digital Literacy					
	Computer Science					
	Information technology	Technology can be used for a rage of purposes. Select the appropriate technology for a purpose.	Use an iPad to search for a video, take a photo, scan a QR code.	Uses of Technology	Information technology, computers, robots, humanoids, QR codes, camera, photo, video	Link with Humanities topic

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Computing Progression Mapping

		Q: What role does technology have in your learning?	Create a photo book of key areas around the school. Using the iPad to take photos and typing captions. Q: Is technology useful?			
Summer 1 Project (Dash)		Debugging can be used to improve code. Code can be used to make a robot complete a set of actions Loops can be used to repeat instructions. Sequencing plays an important role in the execution of functions.	Using multiple methods to debug code, responding to the outputs of a program (Dash) Choose the most appropriate method to make a robot complete a function. Using critical thinking to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Using loops and sequencing to solve problems.			

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New focus concept

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Computing Progression Mapping

NC link		Use technology purposefully to create, organise, store, manipulate and retrieve digital	Use technology purposefully to create, organise, store, manipulate and retrieve digital			
Summer 2	Digital Literacy					
	Computer Science					
	Information technology					
NC link			Use technology purposefully to create, organise, store, manipulate and retrieve digital content			

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New focus concept

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Computing Progression Mapping
Year 3

	Strand	Declarative Knowledge (knowing that)	Procedural Knowledge (knowing how to)	Concept	Vocab	Interdisciplinary links
Autumn 1	Digital Literacy	Personal information needs to be kept private and understand the difference between friends at school and 'friends' online. People have online personas. Recognise the behavior online that is acceptable/ not acceptable and know that behavior can be reported. Q: Why do people have online personas?	Where to go if I encounter something online that worries me. To use the 'report' function on age appropriate games. Q: When do you report someone/ something on a game?	Personal Information Online Safety	Personal information, online personas, online identity, FOMO	PSHE
	Computer Science					
	Information technology					
NC Link		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behavior; identify a range of ways to report concerns about content and contact.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behavior; identify a range of ways to report concerns about content and contact.			

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Computing Progression Mapping

Autumn 2	Digital Literacy	The use of computer networks and the internet in the classroom, beginning to explore the use of these beyond the classroom. Computers can be used to communicate and connect people in different locations (sending emails to family in other countries. Q: How can computers be used to help people in different places communicate?	Different methods for typing efficiently. Q: Why is it important to learn how to type efficiently?	Use of computers Typing	Networks, communication, internet, e-mail, efficiency, connection	
	Computer Science					
	Information technology					
NC link		Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration				
Spring 1	Digital Literacy					
	Computer Science	Computers work by following a set of clear instructions. These instructions are called algorithms. Logical reasoning is used to explain how algorithms work and to detect and correct errors in algorithms and programs. Understand that changing an algorithm/ instructions will change the output. Predictions can be made about the impact.	Create, describe and debug algorithms, explaining actions using logical reasoning. Code a program to achieve a sequential algorithm (creating an algorithm with more than one step).	Coding	Algorithms, instructions, logical reasoning, errors, debugging, input, output, predictions, block coding, sequential algorithm, digital devices, sequencing, repetition	

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Computing Progression Mapping

		There are different types of programming language. We are using block coding. Q: What makes a good algorithm?	Create programs to accomplish specific goals. Using an increased number of digital devices (IPad) and use sequencing and repletion. Use logical reasoning to identify and resolve problems. Q: How can you make your algorithm more efficient?			
	Information technology					
NC link		Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and program	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts			
Spring 2	Digital Literacy	Rings of responsibility. I have a responsibility for what I post online. Links between online identity and online posts. Q: Who is responsible for what is posted online?	Keeping my online identity safe and protected. Q: What is your online identity?	Online Safety Online Communities	Personal information, online personas, online identity, FOMO, communities, responsibility, identity	PSHE

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Computing Progression Mapping

	Computer Science					
	Information technology					
NC link						
Summer 1	Digital Literacy	Digital citizenship pledge. Knowing how to engage online in a positive manner. Knowing that digital media can be altered online. Q: Why do people alter things that they put online?		Online Safety Online Communities	Personal information, online personas, online identity, FOMO, communities, responsibility, identity, altered, peer pressure	
	Computer Science					
	Information technology					
Summer 1 Project (SPHERO)		Knowing that 'loops' repeat and action Knowing the differences between synchronous and asynchronous programming	Using loops in code to repeat an action and make code more efficient (when using block coding) Use asynchronous programming to complete a range of functions and tell a story Use various planning formats to plan code and comment on its utility.	Coding	Refractor, debugging, loop, synchronous programming, asynchronous programming	

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Computing Progression Mapping

NC link						
Summer 2 PROJECT TBC	Digital Literacy					
	Computer Science					
	Information technology					
NC link			Use technology purposefully to create, organise, store, manipulate and retrieve digital content			

Year 4

	Strand	Declarative Knowledge	Procedural Knowledge	Concept	Vocab	Interdisciplinary links
Autumn 1	Digital Literacy	Personal information needs to be kept private and understand the difference between friends at school and 'friends' online. People have online personas and understanding that my online persona is linked to my everyday life. Not all information online is real. People who post online have motivations and bias (newspapers and news outlets). Q: Is everything online true?	Where to go if I encounter something online that worries me. Use a range of ways to report concerns online. Q: How do you know if something online is unsafe? What can you do about it?	Personal Information Online Safety	Personal information, online personas, bias, fake news	

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Computing Progression Mapping

	Computer Science					
	Information technology					
NC Link		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	Use technology safely, respectfully and Responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.			
Autumn 2	Digital Literacy	The use of computer networks and the internet in the classroom, beginning to explore the use of these beyond the classroom. Computers can be used to communicate and connect people in different locations (look at how blogs can be sued to communicate information- Humanities link). Not everything online is real, people who put things online have agendas/ bias	How to use the internet (blog) to communicate information and ideas in a safe and respectful way. Engage respectfully with other peoples work (commenting on blog posts).	Use of Computers	Networks, communication, connection, blogs, fake news, agendas, search engines, ranking, credibility	Writing link/ Geography link – creating a blog about refugees.

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Computing Progression Mapping

		Q: How can blogs aid communication? How does a person's agenda impact what they write online?	Q: What are the main features of a blog?			
	Computer Science					
	Information technology		How to create and edit a blog post. Using search engines to retrieve information. Q: Are search engine rankings credible?	Use of Computers	Blog, search engines, ranking, credibility, internet, publish, copyright, permission	Writing link/ Geography link – creating a blog about refugees.
NC link		Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content			

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Computing Progression Mapping

		and information	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information			
Spring 1 WeeBee	Digital Literacy					
	Computer Science	Coding is used to make computers complete a set of functions. Different types of code can be used for different functions. Logical reasoning is used to explain how algorithms work and to detect and correct errors in algorithms and programs. This can be used to make predictions. Understand that changing an algorithm/ instructions will change the output. Predictions can be made about the impact. There are different types of programming language. We are using block coding.	Adept at debugging algorithms that are being developed. Make predictions by looking at algorithms and explain logical reasoning behind decisions. Create programs to accomplish specific goals. Using an increased number of	Coding	Coding, functions, logical reasoning, algorithms, programs, predictions, input, output, debugging, digital devices	

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Computing Progression Mapping

		Q: Can we predict what computers are going to do?	digital devices (laptops) Q: What is the most important step in coding?			
	Information technology					
NC link		Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output			
Spring 2	Digital Literacy	The rights and responsibilities of creators on the internet. Q: Who is responsible for what is posted online?		Online Safety	Personal information, online personas, bias, fake news, content creators, credibility	
	Computer Science					

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Computing Progression Mapping

	Information technology		Report content that does not follow internet rules and guidance. Q: Who enforced rules online?	Online Safety	Personal information, online personas, bias, fake news, content creators, credibility, report	
NC link		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.			
Summer 1	Digital Literacy					
	Computer Science					
	Information technology	The internet and computers can be used in a range of ways to communicate ideas (blogs, websites, videos, social media, news) Q: What is the most effective way to communicate online?	How to use a range of programs and devices to create online content (websites, blogs, videos). Typing skills. Q: What different ways can you communicate online?	Online Safety Uses of Computers	Personal information, online personas, bias, fake news, content creators, credibility, blogs, websites, vidoes	
Summer 1 Project						

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Computing Progression Mapping

(Little Bits STEAM)						
NC link		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration			
Summer 2 PROJECT TBC	Digital Literacy					
	Computer Science					
	Information technology					
NC link			Use technology purposefully to create, organise, store, manipulate and retrieve digital content			

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Computing Progression Mapping
Year 5

	Strand	Declarative Knowledge	Procedural Knowledge	Concept	Vocab	Interdisciplinary links
Autumn 1	Digital Literacy	Personal information needs to be kept private and understand the difference between friends at school and 'friends' online. Understanding the differences between online personas and real life personas. Online personas influence how we engage and interact online. Q: How are online personas and offline personas the same? How are they different?	Engage safely and respectfully with a range on online communities (pre teaching for NatterHub). Q: What is important to know before engaging with online communities?	Personal information Online safety	Personal information, online personas, influence, interact, FOMO, social media, digital foot prints	PSHE
	Computer Science					
	Information technology					
NC Link		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact			
Autumn 2	Digital Literacy	Computers can be used to communicate and connect people in different locations (social	Different methods for typing efficiently and	Use of Computers	Computer, networks, social media,	

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		media – linking with fake news). Linking with NatterHub. Q: Is social media a good or a bad thing?	type with increasing fluency. Alter security settings on a range of devices and programs. Q: Why do you need to update your security settings? When should you update them?		communication, hardware, software, security, settings	
	Computer Science					
	Information technology					
NC link		Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.			
Spring 1	Digital Literacy	Search engines information is ranked. This impacts its reliability. Q: Is google a reliable search engine?	Using search engines to compile information and select information with an appreciation of its rank.	Search engines	Search engines, ranking, reliability, compiling, representing	Humanities – researching and presenting information on a topic

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Computing Progression Mapping

			Q: How do you select information that you find online? What do you need to consider?			
	Computer Science					
	Information technology		Using technology to store, manipulate and organize data on a given topic – linking with humanities topic. Q: What is the most effective way to communicate information using a computer?	Uses of Computers	Store, manipulate, organize, data, representation, search engines, presentation	Humanities – researching and presenting information on a topic
NC link		Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content			
Spring 2 Turtle Graphics	Digital Literacy					
	Computer Science	Coding is used to make computers complete a set of functions. Different types of code can be used for different functions.	Develop algorithms for a specific function. These can be	Coding	Coding, functions, code, debugging, function iteration,	

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Computing Progression Mapping

		The importance of debugging and the impact this has on a piece of code (more efficient). The importance of saving work after each functioning iteration. Q: Why is it important to debug your work?	deconstructed and refined to achieve specific goals. Debug simple programs that they have created Save a created algorithm on a number of platforms. Produce a program with a variety of objects, actions, events and outputs. Q: Is there another function that will give you the same output?		algorithms, objects, actions, inputs, outputs	
	Information technology					
NC link		Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts			

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Computing Progression Mapping

			Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs			
Summer 1	Digital Literacy	The use of computer networks and the internet beyond the classroom (look at the role of computers in aiding space exploration – linking with NASA). Q: How have developments in computing impacted other industries?		Uses of Computers	Network, internet, connection	Science link – NASA.
	Computer Science					
	Information technology		Present data and information in a variety of ways for a given purpose (children collate information about a NASA project). Creating a online presentation.	Uses of Computers	Network, internet, connection, presentation, blog, website	

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Computing Progression Mapping

			Q: What do you need to consider when representing information?			
NC link		Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information § use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital conten			
Summer 2	Digital Literacy					
PROJECT TBC	Computer Science					

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Computing Progression Mapping

	Information technology					
NC link			Use technology purposefully to create, organise, store, manipulate and retrieve digital content			

Year 6

	Strand	Declarative Knowledge	Procedural Knowledge	Concept	Vocab	Interdisciplinary links
Autumn 1	Digital Literacy	Personal information needs to be kept private and understand the difference between friends at school and 'friends' online. Exploring personal digital footprints and the impact these can have offline (being responsible for what you engage with online). Links with social media use. Q: Do digital footprints accurately represent an individual?	Engage safely and respectfully with a range on online communities (pre teaching for NatterHub). Q: How can you manage you online presence?	Personal information Online Safety	Personal information, online safety, FOMO, online communities, digital footprint, social media, online personas	PSHE
	Computer Science					
	Information technology					
NC Link		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify	Use technology safely, respectfully and responsibly; recognise			

UNIVERSITY OF CAMBRIDGE PRIMARY SCHOOL

New focus concept

Previously introduced concept

Computing Progression Mapping

		a range of ways to report concerns about content and contact Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact			
Autumn 2	Digital Literacy	The use of computer networks and the internet beyond the classroom (exploring social media). Links with Natter Hub. Q: What is the role of social media in our society?		Use of computers Social media	Social media, age rating, FOMO, internet, platforms, influencers	PSHE
	Computer Science					
	Information technology					
NC link		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration				
Spring 1	Digital Literacy					

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Computing Progression Mapping

	Computer Science	Coding is used to make computers complete a set of functions. There are different types of coding (e.g. block coding, Python etc. – exposure) The importance of debugging and the impact this has on a piece of code (more efficient). Code can be organized and labeled. Awareness of multiple methods for debugging code – flow charts The importance of saving work after each functioning iteration. Q: Is it important for other people to be able to read and understand your code? Why?	Deconstruct, improve and create programs including using: selection, principles of logical reasoning and employing various strategies to solve problems. Develop coding skills, beginning to organize code in functions. Labeling code to make it easier to follow. Follow flow charts to create and debug code. Begin to use these to explain code that has been created. Develop programs to include interactivity. Q: How did you use logical thinking to improve your code?	Coding	Coding, functions, code, debugging, function iteration, algorithms, objects, actions, inputs, outputs	
	Information technology					
NC link		Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Design, write and debug programs that accomplish specific goals, including			

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Computing Progression Mapping

			controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including			

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Computing Progression Mapping

			collecting, analysing, evaluating and presenting data and information			
Spring 2	Digital Literacy	Online creator can use adverts and clickbait to encourage people to view their content. Spotting key signs of click bait. Social media has benefit and negatives - exploring 'my media balance'. Online experiences and gender stereotypes. Q: Should advertising online be against the law?	Typing skills			
	Computer Science					
	Information technology		Use numerous programs (word, PowerPoint) to covey information.			
NC link		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including			

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Computing Progression Mapping

		the opportunities they offer for communication and collaboration	collecting, analysing, evaluating and presenting data and information			
Summer 1	Digital Literacy					
	Computer Science	Coding is used to make computers complete a set of functions. There are different types of coding (e.g. block coding, Python etc. – exposure). Explore the different functions of each type of coding (examples) The importance of debugging and the impact this has on a piece of code (more efficient). Code can be organized and labeled. Code needs to be labeled in a way that allows other people to understand your code. Awareness of multiple methods for debugging code – flow charts The importance of saving work after each functioning iteration.	Deconstruct, improve and create programs including using: selection, principles of logical reasoning and employing various strategies to solve problems. Develop coding skills, beginning to organize code in functions. Labeling code to make it easier to follow. Follow flow charts to create and debug code. Begin to use these to explain code that has been created. Develop programs to include interactivity.			
	Information technology					

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New focus concept

Previously introduced concept

Computing Progression Mapping

NC link		Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs				
Summer 2 PROJECT TBC	Digital Literacy					
	Computer Science					
	Information technology					
NC link			Use technology purposefully to create, organise, store, manipulate and retrieve digital content			