

Subject: Computing
Lead: Miss R Hornby

	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Reception	<u>All About Me</u>	<u>Animals</u>	<u>Travel</u>
NC Strand:	<p>Understanding the World (Specific Area)</p> <ul style="list-style-type: none"> Technology: children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purpose. <p>Explore toys that simulate control devices e.g., traffic lights, scanner, microwave, cash tills, with the intention of finding out how it works.</p> <p>Explore the commands needed to control a range of electronic toys.</p>	<p>Understanding the World (Specific Area)</p> <ul style="list-style-type: none"> Technology: children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purpose. <p>Explore ways of making and listening to sounds using programs and devices.</p> <p>Interact and explore their environment using a range of multimedia equipment, including digital cameras, video cameras, microscopes etc. This could also include the use of tablets e.g. iPad to capture still and moving images.</p> <p>Collect information, e.g., by taking photographs or collecting objects.</p>	<p>Understanding the World (Specific Area)</p> <ul style="list-style-type: none"> Technology: children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purpose. <p>Use a shortcut such as an icon on the desktop to navigate to a specific website.</p> <p>Explore a teacher-selected website to find a desired page, using hyperlinks and navigation buttons.</p>
E-Safety covered in PSHE			<p>Keeping safe (thrive)</p> <p>To share ideas about activities that are safe to do on electronic devices: https://www.coramlifeeducation.org.uk/scarf/lesson-plans/keeping-safe-online</p>
Key Vocab.	Instruction	Device, Record, Internet, SMART Rules	Technology, Share, Search Engine (Google), Website, Store, Online

	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Year 1	<u>Creating Media – Digital Painting</u> <u><i>Paint 3D</i></u>	<u>Creating media – Digital Writing</u> <u><i>Microsoft Word</i></u>	<u>Programming B – Programming Animations</u> <u><i>iPad - Scratch Jr</i></u>
NC Strand:	<ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate, and retrieve digital content (IT) 	<ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate, and retrieve digital content (IT) Use technology safely and respectfully, keeping personal information private (ES) 	<ul style="list-style-type: none"> Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions (CS) Create and debug simple programs (CS) Use logical reasoning to predict the behaviour of simple programs (CS)
E-Safety covered in PSHE		<u>Sharing Pictures:</u> <u>L8, L9 – about the role of the internet in everyday life</u> https://www.coramlifeeducation.org.uk/scarf/lesson-plans/sharing-pictures	
Key Vocab.	Tools (<i>fill, undo, shape, brush</i>), Save, Retrieve	Keyboard, Space Key / Bar, Shift, Backspace, Caps Lock, Mouse, Cursur, Word Processor, Toolbar (<i>bold, italic, underline</i>)	Command, Algoritmn

	<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring</u>	<u>Summer</u>
Year 2	<u>Information Technology Around Us</u>	<u>Creating Media – Digital Painting</u> <i><u>iPad - Pixlr App</u></i>	<u>Creating media – Digital Writing</u> <i><u>Chrome Music Lab – The Song Maker Tool</u></i>	<u>Programming B – Programming Animations</u> <i><u>iPad - Scratch Jr</u></i>
NC Strand:	<ul style="list-style-type: none"> Recognise common uses of information technology beyond school (DL) Use technology purposefully to create, organise, store, manipulate, and retrieve digital content (IT) 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. (ES) <p><i>L1, 2 and 3 to be combined into 1 afternoon, L5 and 6 to be covered on Internet Safety Day.</i></p>	<ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate, and retrieve digital content (IT) 	<ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate, and retrieve digital content (IT) Use technology safely and respectfully, keeping personal information private (ES) 	<ul style="list-style-type: none"> Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions (CS) Create and debug simple programs (CS) Use logical reasoning to predict the behaviour of simple programs (CS)
E-Safety Covered in PSHE	Rights & Responsibilities (Honesty and empathy) H34 – basic rules to keep safe online; the importance of telling a trusted adult if they come across something that scares them. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/playing-games		Healthy Relationships (Achieve and aspire) R12 – that hurtful behaviour (online and offline) is not acceptable; how to report bullying and the importance of telling a trusted adult. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/bullying-or-teasing	
Key Vocab.	Digital Device, Capture, <i>Portrait and Landscape</i> , Composition, Software,		Store, Retrieve, Resave, Share	Outcome, Animation, Program, Code

	Autumn 1	Autumn 2	Spring	Summer
Year 3	<u>Connecting Computers</u>	<u>Stop-Frame Animation</u> <u>iPad - iMotion</u>	<u>Data and information – Branching Databases</u> <u>i2data – i2e</u>	<u>Programming B – Events and Actions</u> <u>Scratch</u>
NC Strand:	<ul style="list-style-type: none"> Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS) 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 (IT) 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 (DL) 	<ul style="list-style-type: none"> 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 (DL) Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. (ES) 	<ul style="list-style-type: none"> 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 (DL) Use technology safely, respectfully, and responsibly (ES) 	<ul style="list-style-type: none"> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (CS) Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS) Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (CS) 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 (DL)
E-Safety Covered in PSHE	Rights & Responsibilities (Honesty & empathy) H37,L1 – reasons for following and complying with regulations and restrictions; how they promote personal safety and wellbeing with reference to social media, TV, films and games. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/as-a-rule		Keeping safe (respect) H42, R12, R22-30 – the importance of keeping personal information private; strategies for keeping safe online; where to get advice and report concerns. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/none-of-your-business	
Key Vocab.	Input, Processes, Output, Computer Network, Connection, Server, Wireless Access Point, Infrastructure	Stop-Frame, Animation, Frame, Media, 'Onion Skinning'	Branching Database, Data, Retrieve,	Program, Debug, Event, Code

	<u>Autumn</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer</u>
Year 4	<u>Creating Media – Audio Editing</u> <i><u>Audacity</u></i>	<u>Creating Media – Photo Editing</u>	<u>Data and Information – Data Logging</u>	<u>Programming A – Repetition in Shapes</u> <i><u>FMS Logo</u></i>
NC Strand:	<ul style="list-style-type: none"> Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content (ES) 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 (DL) Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (ES) 	<ul style="list-style-type: none"> Use search technologies effectively (ES) 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 (DL) Use technology safely, respectfully and responsibly; recognise acceptable /unacceptable behaviour; identify a range of ways to report concerns about content and contact. (ES) 	<ul style="list-style-type: none"> To work with various forms of input (CS) 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 (DL) <p><i>To be shortened to a few lessons.</i></p>	<ul style="list-style-type: none"> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (CS) Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS) Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (CS) 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 (DL)
E-Safety covered in PSHE	Rights & Responsibilities (Honesty & empathy) R24 – to respond safely and appropriately to adults they may encounter (in all contexts) whom they do not know. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/danger-risk-or-hazard	Keeping Safe (Respect) L11-16 – recognise ways in which the internet and social media can be used both positively and negatively. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/super-searcher		Money Matters (Thrive) L12. - to assess the reliability of sources of information online; and how to make safe, reliable choices from search results. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/in-the-news
Key Vocab.	Audio, Device Input and Output, Copyright, Podcast, File, Fade, Content, Export,	Data, Input, Input Device (Sensor), Software, Connect, Download		Programming, Loop (Count-Controlled, Indefinite) , Animate, Code, Algorithm, Variable, Concurrency

	<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring</u>	<u>Summer 2</u>
Year 5	<u>Computing Systems and Networks – Sharing Information</u>	<u>Creating Media - Vector Drawing</u> <i><u>Google Drawings App</u></i> <i><u>(Microsoft Publisher or PowerPoint)</u></i>	<u>Creating media – Video Editing</u> <i><u>Microsoft Video Editor</u></i>	<u>Programming B – Selection in Quizzes</u> <i><u>Scratch</u></i>
NC Strand:	<ul style="list-style-type: none"> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (CS) Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS) 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 (IT) 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 (DL) Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (ES) <i>To be shortened to 3 lessons.</i> 	<ul style="list-style-type: none"> 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. (DL) 	<ul style="list-style-type: none"> Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content (ES) 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 (DL) Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (ES) 	<ul style="list-style-type: none"> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (CS) Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS) Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (CS)
E-Safety covered in PSHE	Feelings & Emotions (Empathy & tolerance) R15, R23-4, R30 – strategies for recognising and managing peer influence; about why someone may behave differently online https://www.coramlifeeducation.org.uk/scarf/lesson-plans/spot-bullying		Healthy Relationships (Achieve and aspire) R12, R23-4, R28-30, L5, ,L16 – to recognise what it means to 'know someone online' and how this differs from knowing someone face-to-face; risks of communicating online https://www.coramlifeeducation.org.uk/scarf/lesson-plans/play-like-share-1	Healthy Life Styles (Thrive) L16 – how text and images in the media and on social media can be manipulated or invented. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/is-it-true
Key Vocab.	System, Component, IP Address, Network	Vector Drawing, Object, Resize Handle, Alignment Grid, Scale	Media Format, Content, Store, Retrieve, Export	Selection, Condition, Outcome, Algorithm, Modify

	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
Year 6	<u>Creating Media – 3D Modelling</u> <u>Tinkercad</u>	<u>Creating Media -Web Page Creation</u> <u>Google Workspace for Education</u>	<u>Programming A</u>
NC Strand: E-Safety covered in PSHE	<ul style="list-style-type: none"> 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 (DL) Use technology safely, respectfully and responsibly; recognise acceptable /unacceptable behaviour; identify a range of ways to report concerns about content and contact (ES) 	<ul style="list-style-type: none"> Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content (ES) 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 (DL) <p>Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p> <p>Healthy Relationships (Achieve & aspire) R12 – to recognise what it means to ‘know someone online’ and how this differs from knowing someone face-to-face; risks of communicating online. https://www.coramlifeeducation.org.uk/scarf/lesson-plans/fakebook-friends</p> <ul style="list-style-type: none"> (ES) 	<ul style="list-style-type: none"> Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS) Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (CS) 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 (DL)
Key Vocab.	3D, Dimension, Modify, Scale	Website, Copyright, HTML, Navigation Path, Hyperlink	Variable. Programming, Algorithm, Input