

Computing Curriculum Overview

	Topic 1 1 input + small group focus		Topic 2 1 input + small group focus		Topic 3 1 input + small group focus		Online Safety 3 circle times + continuous provision	
N	Computational Thinking - Instructions		Beebot - Instructions		Beebot - Sequences		Topic 1: What do you do online? Topic 2: Jessie and Friends (Watching Videos) – ThinkUKnow Topic 3: Digiduck's big decision <i>No Key Task for online safety units</i>	
Asses	EYFS observation sheet		EYFS observation sheet		EYFS observation sheet			
	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To
	<p>Know that an instruction tells someone or something what to do.</p> <p>Know the terms: Forward Front Backwards Back Move Step</p>	<p>To be able to guide another child with simple instructions.</p> <p>To be able to use simple directional language.</p> <p>To give instructions in simple, individual steps.</p>	<p>Know that we can use instructions to control objects and computers.</p> <p>Know the terms: Forward Front Backwards Back Move Step Command Turn Clear Go</p>	<p>To control a Beebot using single steps.</p> <p>To use single step instructions to reach a specific destination.</p> <p>To evaluate the effectiveness of instructions by checking if the beebot reached the destination.</p>	<p>Know that putting instructions together in order is a sequence.</p> <p>Know that a sequence of instructions must be followed in order.</p> <p>Know the terms: Forward Backwards Move Sequence Command Turn Right Left Clear Go</p>	<p>To be able to reach a destination in using a sequence of steps.</p> <p>To make the Beetbot move in a simple sequence of steps.</p> <p>To use and respond to subject specific language (as listed in knowledge)</p>	<p>To know what apps / sites they are allowed to use in the classroom.</p> <p>To know what websites look like and recognise when they have left a safe site.</p> <p>Know they should ask for help if they feel unsafe.</p> <p>How they use the internet</p> <p>Some devices are connected to the internet</p> <p>Know the terms: Online App Website Computer Tablet Laptop Phone</p>	<p>Understand that they must ask for permission when using the internet.</p> <p>Understand how to ask for help from a grown up.</p> <p>Understand that they must only use agreed apps / sites they have permission for.</p> <p>Understand that they must be a good friend online.</p>

							Online, Internet, devices, screens, computers, videos, shows, TV, games, television, watch, safe, staying safe, adult, trust, friends, family.	
Continuous Provision (Opportunities to access these skills at all times)	Knowledge					To Know How To		
	I know basic equipment. I know you can operate the bee bots. I know the names of some parts of the computer. I know the names of some parts of a tablet. I know you can take a picture using a tablet. I know you can draw using the mouse. I know where to find the letter for the start of my name on the keyboard. I know I can play simple preloaded games on the whiteboard. I know I can play simple reloaded games on the computer. I know I can to take turns using the computers and whiteboard.					I know how to turn basic equipment on and off. I know how to operate the bee bots with some support. I know how to name some parts of a computer I know how to name some parts of a tablet. I know how to take a picture using a tablet. I know how to draw with some control using the mouse. I know how to use a mouse with increasing control. I know how to find the letter for the start of my name. I know how to play simple preloaded games on the whiteboard. I know how to take turns using the computers and whiteboard. I know how to play preloaded games on the computer using the mouse.		
Key Vocabulary	Computer Tablet Phone Camera Mouse Keyboard Whiteboard Bee bot online app website forward front backwards back move step command turn clear go							

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	Topic 1 1 input + small group focus		Topic 2 1 input + small group focus		Topic 3 1 input + small group focus		Online Safety 7 circle times plus continuous provision	
R	Computer Science - Beebot		Computer Science – Code-a-pillar		Computer Science - Beebot		Topic 1: Smartie the Penguin Topic 2: Project Evolve : Personal or Private? Topic 3: Jessie and Friends (Sharing Pictures) – ThinkUKnow <i>No Key Task for online safety units</i>	
Asses	EYFS observation sheet		EYFS observation sheet		EYFS observation sheet			
	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To
	<p>Know a sequence of instructions can be recorded, tested and improved.</p> <p>Understand these words: Sequence Direction Left turn Right turn Clear Go</p>	<p>To follow a sequence of commands to reach a given destination.</p> <p>To record a sequence of commands to reach a given destination.</p> <p>To be able to use simple directional language. To be able to distinguish left from right.</p> <p>To be able to successfully move the bee-bot from one location to another.</p>	<p>Know that instruction can be given in different ways.</p> <p>The importance of looking after toys and electrical items carefully.</p> <p>Understand these words: Sequence Sound Move Blocks Test Improve</p>	<p>To give a sequence of commands to reach a given destination.</p> <p>To be able to use directional language to avoid an obstacle.</p> <p>To be able to use the Code-a-Pillar blocks to create a sequence including movement and sound.</p> <p>To be able to use a repeat to make a continuous sequence.</p>	<p>Know that instructions must be linked to create a sequence.</p> <p>Instructions can include sound, light and movement.</p> <p>Understand these words: Robot iPad app programme instructions</p>	<p>To create an obstacle course to manoeuvre ‘Dash’ around.</p> <p>To be able to use simple directional language.</p> <p>To be able to use the iPad to create a simple programme.</p> <p>To be able work together to programme Dash.</p>	<p>To know who can help if something goes wrong online.</p> <p>To know there can be a risk online or in the real world.</p> <p>To know what apps / sites they are allowed to use in the classroom and at home.</p> <p>Identify and name examples of their own personal information.</p> <p>Understand these words: Adult Trust Share Choice Tablet Deleted Block personal private</p>	<p>Children understand that they need an adult with them when using the Internet.</p> <p>Children recognise who they can ask for help and know when they need help.</p> <p>Children understand that they need to share equipment and take turns.</p> <p>Children recognise the impact of good choices and consequences of wrong ones.</p>

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Continuous Provision	Knowledge	To Know How To
	<p>I know where to turn the computer on and off properly.</p> <p>I know I can operate and program bee bots.</p> <p>I know I can operate and program the code-a-pillar.</p> <p>I know I can operate and program the dash robot.</p> <p>I know I can complete a simple program on the computer.</p> <p>I know I can draw pictures using 2paint or 2simple.</p> <p>I know I can play and access different games on Busy Things and Education City.</p> <p>I know I can use touchscreen devices.</p> <p>I know I can take a picture on a tablet.</p> <p>I know I can type my name using the keyboard.</p> <p>I know I can stay safe online by following Smartie the Penguin's advice.</p> <p>I know I can use a mouse to navigate around programs.</p> <p>I know I can select different types of technology for different purposes.</p> <p>I know I can create a video of record a story.</p> <p>I know I can use the IWB to play different games.</p> <p>I know I can to draw using the IWB and pens.</p> <p>I know I can to change colours for my drawings.</p> <p>I know I can save a piece of work with support.</p> <p>I know I can label a picture.</p> <p>I know the names of the different parts of the computer.</p> <p>I know the names of the different parts of a tablet.</p> <p>I know I can take turns using the computers and whiteboard.</p> <p>I know the importance of screen time.</p>	<p>I know how to turn the computer on and off.</p> <p>I know how to operate the bee bots and program them to move.</p> <p>I know how to operate the code-a-pillar and program them to move.</p> <p>I know how to operate dash and program them to move.</p> <p>I know how to complete a simple program on the computer.</p> <p>I know how to draw pictures on the computer using 2paint or 2simple.</p> <p>I know how to play different games on Busy Things or Education City.</p> <p>I know how to choose games on Busy Things or Education city.</p> <p>I know how to use touchscreen devices.</p> <p>I know how to take pictures using a tablet.</p> <p>I know how to type my name using the keyboard.</p> <p>I know how to say how to stay safe online and follow Smartie the Penguin.</p> <p>I know how to use a mouse accurately to navigate around the program.</p> <p>I know how to select different types of technology for different purposes.</p> <p>I know how to create a video or record a story.</p> <p>I know how to use the IWB to play games.</p> <p>I know how to draw using the pen on IWB.</p> <p>I know how to change colours for my drawings.</p> <p>I know how to with support save my work.</p> <p>I know how to label a picture.</p> <p>I know how to name the parts of a computer.</p> <p>I know how to name the parts of a tablet.</p> <p>I know how to take turns using the computers and whiteboard.</p>
Key Vocabulary	<p>Screen Monitor Keyboard Mouse Phone Tablet Camera App Online Internet Game Code-a-pillar Dash robot Log in Exit Back Label Type Click Save Busy things Education City 2simple 2paint Smartie the Penguin Record Video Photo robot ipad share choice adult trust programme instructions sequence sound move blocks test improve go clear right turn left turn direction sequence</p>	

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	Topic 1 6 lessons + 1 online safety lesson		Topic 2 6 lessons + 1 online safety lesson		Topic 3 6 lessons + 1 online safety lesson		Online Safety 3 lessons	
1	iPad Photography		Digital Drawing and Writing		What is an algorithm?		Topic 1: Jessie and Friends (Playing Games) – ThinkUKnow Topic 2: Project Evolve: Personal Information and asking for help Topic 3: Chicken Clickin’ No Key Task for online safety units	
Asses	Key Task: To take a photo and add shapes, arrows and text to explain the image on iPad.		Key Task: To use computer based drawing tool and word processing to create a document including a picture and text.		Key Task: To write an algorithm to draw a character and use debugging to improve it. [unplugged activity]			
	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To		
	<p>That a computer is a part of IT.</p> <p>Know that you can use an iPad to take a picture.</p> <p>Know that photos can be stored on an iPad.</p> <p>There is a front and back camera on an iPad.</p> <p>An iPad is a type of tablet, what they are used for and how they can be used safely.</p> <p>Features of a good photograph.</p> <p>Understand these words: Zoom Save App iPad Angle Camera</p>	<p>Identify examples of computers</p> <p>Describe some uses of computers</p> <p>Use a mouse to open a program.</p> <p>Unlock an iPad screen and safely hold it with 2 hands and rest it safely on a table to operate.</p> <p>Use the home button and touchscreen on an iPad</p> <p>Open apps on the iPad – camera, photos and seesaw.</p> <p>Use tap to focus to take a clear photo using both the front and back camera.</p>	<p>That a computer can be used to create a document.</p> <p>Computers can allow you to edit text easily.</p> <p>When word processing, text will automatically move to the next line when a line is full.</p> <p>What the impact of using bold, italics and underline formatting is.</p> <p>What the impact of using colour, tools and size formatting is.</p> <p>Computers and allow you to arrange your work with images and text.</p>	<p>Turn on and log into a laptop independently.</p> <p>Open a program on a computer from the desktop or start menu.</p> <p>To open a word processor or drawing program</p> <p>Use the mouse (or trackpad) to draw using illustrations on screen.</p> <p>Use the keyboard to add text on screen.</p> <p>Use paint to create simple pictures.</p> <p>Use a range of tools (pen, pencil, brush) to create marks on a screen.</p>	<p>To understand why we need to evaluate algorithms.</p> <p>To understand why sometimes algorithms might need debugging.</p> <p>To know an algorithm is a sequence of specific instructions to reach a repeatable result</p> <p>Understand these words: Algorithm, debugging, evaluation, forwards, backwards, turn, control, app</p>	<p>Write an algorithm using words, pictures or programming blocks.</p> <p>Use testing (evaluation) and debugging to identify errors in an algorithm.</p> <p>Accurately sequence instructions to meet a given goal.</p> <p>Suggest improvements to ensure a given algorithm meets a specific goal.</p> <p>To follow an algorithm and suggest improvements – evaluation.</p>	<p>Know what personal information is and who you can share it with.</p> <p>To know why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others.</p> <p>Know that they must keep passwords private.</p> <p>Know that some apps and games may request or take payment for additional content (e.g. in-app purchases, lootboxes).</p> <p>Understand these words:</p>	<p>Recognise the Internet as an exciting place to be but understand the need for a balance in how they spend their time and make good choices about age appropriate activities.</p> <p>To identify personal information.</p> <p>Understand who to tell when they see something that makes them uncomfortable and make sure an adult knows what they are doing.</p> <p>To understand that purchases made online cost money.</p>

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	<p>QR Code Tool Icon Focus Framing compose edit</p>	<p>Position the camera on an iPad to include the subject of the photo.</p> <p>Use lines, shapes, arrows and text to annotate an image.</p> <p>Use the keyboard to type on an iPad including capitals and lowercase letters.</p> <p>Upload work to seesaw.</p>	<p>Saving work allows you to reopen work at a later date.</p> <p>Understand these words: Sign In Save Computer Keyboard Screen program tool paintbrush erase fill undo type document Back space Space bar Bold Italic underline</p>	<p>To use the shape and line tools to recreate the work of an artist</p> <p>To make marks with the square and line tools</p> <p>Use formatting tools to change the size, colour and effect of drawing tools and text.</p> <p>Use a computer to create simple text documents.</p> <p>Locate all keys needed to write a simple sentence.</p> <p>Use the speech tool to listen back to text.</p> <p>To save or open a document</p> <p>To use letter, number, backspace and Space keys</p>		<p>To be able to write an algorithm using arrows.</p> <p>To test and debug an algorithm</p> <p>To be able to write a precise algorithm for something they have created.</p> <p>To be able to move a character on an on screen program</p> <p>To create and debug simple algorithms</p> <p>To evaluate their algorithms and debug if necessary.</p> <p>To be able to use an on screen program to create and debug simple algorithms.</p>	<p>Browse, stranger, personal, share, private, online, purchase</p>	<p>To understand that they must ask to use the internet.</p> <p>To understand the risk of meeting someone they have met online.</p> <p>Explain the importance of seeking permission from a trusted adult before purchasing anything online or offline.</p>
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	Topic 1 6 lessons + 1 IT lesson		Topic 2 6 lessons + 1 online safety lesson		Topic 3 6 lessons + 1 online safety lesson		Online Safety 3 lessons	
2	Staying Safe Online		Scratch Junior		Presenting Information		Topic 1: Barefoot Computing – Safety Snakes Topic 2: Project Evolve: Online Bullying and asking for help Topic 3: Tek The Modern Cave Boy No Key Task for online safety units	
Asses	Key Task: To create online profile with only information which is safe to share online		Key Task: To create a simple quiz using Scratch Jr.		Key Task: To create a PowerPoint presentation			
	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To
	<p>Know common uses of IT and how they can be used together.</p> <p>Know the risks and opportunities of being an digital citizen</p> <p>Know what personal information is: name, school, address, password, phone number, photos, location and parent's finance/personal information.</p> <p>Know that personal information should be kept private.</p> <p>Know what to do if they see something inappropriate (turn screen off / close lid on laptop)</p> <p>Know who to speak to if something upsets</p>	<p>Explain know to use their knowledge about staying safe in the real world to the online world.</p> <p>Explain to other how to stay safe online.</p> <p>Understand how to get help if they are worried about something online.</p> <p>To understand their responsibility as digital citizens.</p> <p>Learn to identify websites and apps that safe and understand others may be risky.</p> <p>Learn that the information they share online leaves a digital footprint or "trail".</p>	<p>Know what an algorithm is.</p> <p>Know what the impact of a repeat is within a set of instructions.</p> <p>Know why we use events such as wait, start and end.</p> <p>Know the different colours refer to different types of blocks.</p> <p>Know common programming blocks in ScratchJr</p> <p>Know that a sprite moves on a background in ScratchJr</p> <p>Know that it is useful to create a design before writing a program</p>	<p>Open an iPad app independently.</p> <p>Use an algorithm to make an image move on the screen.</p> <p>Navigate on screen options on Scratch Jr.</p> <p>To identify the start of a sequence</p> <p>To identify that a program needs to be started</p> <p>Order instructions to create an algorithm.</p> <p>To predict the outcome of a sequence of commands</p> <p>Sequence programming blocks and pages blocks to create a program.</p>	<p>To know the main features of a presentation.</p> <p>To name some of the most popular presentation applications.</p> <p>To know what should go on a slide to make it easy to read / understand to know that different slide layouts are available</p> <p>To know that images, text boxes and text can all be formatted.</p> <p>Understand the words: Presentation, Microsoft PowerPoint, OpenOffice Impress, Google Slides, Apple</p>	<p>To edit the transition between slides.</p> <p>To save and load independently.</p> <p>To set the presentation theme.</p> <p>To use slide transitions.</p> <p>To use animations to introduce objects to a slide.</p> <p>To access Slide Sorter View.</p> <p>To drag slides to reorder.</p> <p>To use different options to present.</p> <p>To insert an image from a folder.</p>	<p>Know what makes a password secure.</p> <p>Know how to report concerns, including online bullying.</p> <p>Know that any personal information they put online can be seen and used by others.</p> <p>Know the impact of spending too much time online.</p> <p>Recognise some sources of support in different contexts (e.g. school, home, online).</p> <p>Understand why people sometimes don't ask for help when being bullied.</p>	<p>Recognise the need to keep personal information and passwords private. Identify who to turn to for help and support.</p> <p>Recognise the need for a secure password and evaluate some example passwords.</p> <p>Ask for permission and tell an adult what they are doing online.</p> <p>Suggest ways privacy settings can help keep personal information safe.</p> <p>Recognise how to balance time online vs offline.</p>

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	<p>them (parent, teacher or adult they trust).</p> <p>Begin to understand that not everything on the internet is safe.</p> <p>Understand the words: Online Private Trail Permanent Digital footprint Information Pledge Digital citizen Password Username Avatar Trust Trusted adult</p>	<p>Explore what information is OK to be shared online</p> <p>Stay safe online and recognise that it is similar to staying safe in the real world.</p>	<p>What debugging a program means</p> <p>Understand the words: predict Sprite Character Execute/run Algorithm Backdrop/ Stage Sequence Animation Debug Program Screen recorder Seesaw design evaluate blocks command</p>	<p>Use variables to define speed, distance, time and on screen text.</p> <p>Test, evaluate and improve (debug) a program.</p> <p>Save a program in ScratchJr</p> <p>Record the screen on an iPad.</p> <p>Upload work to seesaw.</p>	<p>Keynote, slide, New slide, slide layout, text box, format, font, colour, background, line, Image, picture, photo, format, insert, copy, folder, network, aspect ratio, Slide, Slide Sorter View, drag, present, Theme, transition, animation, slide, object, present, evaluate, edit</p>	<p>To copy an image from another source.</p> <p>To resize an image.</p> <p>To add a new slide and set or change the slide layout.</p> <p>To insert a text box and add text.</p> <p>Format a text box and text</p> <p>To organise my presentation into main ideas.</p>	<p>Understand the words: balance unplugged disconnect technology bullying, mean, support, network, report</p>	<p>Explain why spending too much time using technology can sometimes have a negative impact on anyone, e.g. mood, sleep, body, relationships.</p> <p>Give some examples of both positive and negative activities where it is easy to spend a lot of time engaged (e.g. doing homework, games, films, videos)</p>
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	Topic 1 6 lessons + 1 online safety lesson		Topic 2 6 lessons + 1 online safety lesson		Topic 3 6 lessons + 1 online safety lesson		Online Safety 3 lessons	
3	Networks		Scratch Music		Green Screen Video		Topic 1: Think U Know – Play Like Share Topic 2: Project Evolve: Ownership and Copyright Topic 3: Webster's Friend <i>No Key Task for online safety units</i>	
Asses	Key Task: To identify the devices on the school's local area network and explain how they allow us to save and open a file.		Key Task: To create an algorithm, including at least one repeat, to write a piece of music		Key Task: To create a news interview add suitable background using green screen app (DoInk)			
	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To
	Know what a network is.	Identify the different parts of the schools network.	To identify that each sprite is controlled by the commands I choose	To choose a word which describes an on-screen action for my plan	To understand the use of green screen and computer generated video effects.	To investigate the use of a picture background combined with picture foreground	To know some information we find online may not be real or true.	Explain who they can trust online.
	Know the similarities between using digital devices and using non-digital tools	Explain how I use digital devices for different activities	What a sequence is	To create a program following a design	To understand where green screen technology has been used in films	To take a photo making sure all the photo has green screen in the background.	To know who to ask for help when experiencing problems online.	Explain who to tell about what they are doing online
	Understand the term Local Area Network	Identify different clients on our school network – computer, laptop, tablets.	The difference between hardware and software	To identify the objects in a Scratch project (sprites, backdrops)		To investigate the use of a picture background combined with video foreground	To know the risk of meeting someone you met online.	Demonstrate safe behaviours regarding passwords and private information
	Understand that a network can include physical and wireless connections.	Use the correct terminology for our school's technology.	Know what an algorithm is.	To explain that objects in Scratch have attributes (linked to)	To understand how layers of video can be combined.		To understand that we all have rights over the content we create	Evaluate positive and negative social behaviours online
	Understand the functions of a LAN including saving, printing and connecting to the internet.	Draw a simplified plan of our school's local area network.	To know the purpose of physical inputs and outputs.	To recognise that commands in Scratch are represented as blocks	Understand the words: green screen, computer generated, film, angles, layers, photo, camera, seesaw, background, foreground, graphics, purpose, share, pre-recorded, plan, timeline, script,	To film a video with an image in the background.	To know that whilst the internet may be 'Free' not all content is 'Free to use'	Understand the different feelings they may experience and how these can change.
	Know the role of different parts of our school's network (including server, switch, wireless access point, firewall, router, clients, printers).	Explain how a file is saved or opened on our school server using a diagram.	Understand the words: Scratch, programming, blocks, commands, code, sprite, input, output, costume, stage, backdrop, motion, turn, point in direction, go to, glide, Sequence, event, task, design, code, run the code,	Use variables to define pitch and duration of a musical note.		To take a video making sure all the video has green screen in the background.	To know the difference between the internet and the WWW.	Know screen use can affect the way we feel, and that it's different for each person and start forming health habits.
				To start a program in different ways		To investigate the use a video background combined with		

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	<p>To Know How To the devices in the school's network operate together.</p> <p>Understand the words: Computer network Save/open Local Area Network Device Server Wireless Switch Router Modem Firewall Client Printer</p>		<p>Sequence, order, note, chord, debug, debugging, instructions, steps, algorithm, repeat, repetition</p>	<p>Experiment with changes in variable and note the impact.</p> <p>To create a sequence of connected commands</p> <p>To explain that the objects in my project will respond exactly to the code</p> <p>To combine sound commands</p> <p>To order notes into a sequence</p> <p>To write an algorithm using programming blocks in scratch</p> <p>Use repetition to reduce the number of steps needed in an algorithm</p> <p>Use debugging to fix errors in an algorithm.</p> <p>To identify and name the objects I will need for a project</p>	<p>live, images, animation</p>	<p>simple video foreground</p> <p>To import media into a green screen program as the background.</p> <p>To plan a green screen sequence using a timeline.</p> <p>To import media into a green screen program</p> <p>To edit a green screen project, trimming media and adjusting video volume.</p> <p>To combine a range of tools within a green screen video.</p>	<p>Recognise when something encountered online 'doesn't feel right'</p> <p>Identify and resist pressurising and manipulative behaviour</p> <p>Identify some risks of sharing photos, videos and comments publicly</p> <p>Explain what privacy settings are used for and how they can help</p> <p>Give examples of how a child's online actions can affect others</p> <p>Understand the words: comment share report block copyright, free to use, ownership, rights, consequence, copy, permission, usage rights, stranger,</p>	<p>To evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results.</p>
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				<p>To implement an algorithm as code</p> <p>To use hardware to create inputs for a program</p> <p>Use a program to control a physical device.</p>			<p>online, real, fake, trust</p>	
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	Topic 1 5 lessons + 2 online safety lesson		Topic 2 6 lessons + 1 online safety lesson		Topic 3 6 lessons + 1 online safety lesson		Online Safety 4 lessons	
4	Understanding Data – Spreadsheets		Staying Safe Online		Programming - Microbits		Topic 1: Digital Wellbeing 1 + 2 Topic 2: Project Evolve: Misinformation and Hoaxes Topic 3: #goldilocks <i>No Key Task for online safety units</i>	
Asses	Key Task: To be able to collect data, enter into cells and use a formula to add the contents of 2 cells together.		Key Task: To create a guide to how to stay safe online		Key Task: Create a game on scratch using conditionals (when . . .), repeats and variables.			
	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To
	<p>Know what a spreadsheet is and that it can be used to carry out maths.</p> <p>Know what information and data are.</p> <p>Know that MS Excel is a program used to create spreadsheets.</p> <p>To know that a formula must start with an equals sign</p> <p>To know that the division symbol is /</p> <p>To know that the multiplication symbol is *</p> <p>Know that, when using formulae, changing inputs changes outputs</p> <p><i>Understand the words: Data</i></p>	<p>Open and use MS excel.</p> <p>Add data to a spreadsheet.</p> <p>Select and edit data in a spreadsheet</p> <p>Choose and apply an appropriate format for a cell</p> <p>To save a spreadsheet and open to edit or update.</p> <p>Calculate data using different operations.</p> <p>Use formula to carry out addition, subtraction, multiplication and division operations.</p> <p>Locate a cell with a specific reference on a spreadsheet</p>	<p>Understand about apps' and services' community standards, or terms of service – as well as online tools for reporting abuse.</p> <p>Understand specific ways to respond to bullying when you see it.</p> <p>Recognise upsetting content and understand what to do when they encounter it.</p> <p>Understand it's OK to feel scared or sad when you see something upsetting on (or off) a screen.</p> <p>Who they can go to if they need help with</p>	<p>Identify things online they do not like, know how to tackle them and how to report them.</p> <p>Talk about why and when to report the abuse – and the online spaces where they can report to.</p> <p>Know how to identify, and respond to, situations of harassment or bullying online.</p> <p>Identify who they can talk to about upsetting content – and how to approach a conversation.</p> <p>Use messages and comments on</p>	<p>To understand decomposition</p> <p>To understand the use of repetition</p> <p>To begin to understand conditionals</p> <p>To understand inputs and outputs</p> <p><i>Understand the words: inputs, algorithm, sequence, program, input, output, LED (light emitting diode), flipbook, animation, repeat, flowchart, oval, rectangle, block, delay, process, start, end (stop), flowchart, decomposition, editor, simulator, block, process, product, conditional,</i></p>	<p>Control a micro:bit with a range of input actions to get my desired output action</p> <p>Order events as part of an algorithm</p> <p>Organise information in a logical way.</p> <p>To use decomposition to create a dance sequence</p> <p>To create a flipbook animation of a dance sequence</p> <p>To write simple flowchart algorithms using repetition</p> <p>To write programs based on algorithms using</p>	<p>To know what is safe to share about themselves online.</p> <p>To know what information should be kept personal and not shared online.</p> <p>To know that information shared online can be seen by different audiences.</p> <p>To know the difference between sharing publically and privately.</p> <p>Identify how people can have lots of different feelings at the same time.</p> <p>Identify strategies for developing healthy digital habits.</p>	<p>Children understand the need for rules to keep them safe when exchanging ideas online.</p> <p>Children understand that an adult needs to know what they are doing online and understand how to report concerns, including online bullying.</p> <p>Children understand that any personal information they put online can be seen and used by others.</p> <p>Children recognise that they can use online tools to collaborate and communicate with others and the</p>

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<p>Cell Column Row Sort Formula Sum Sheet Spreadsheet Cell reference</p>	<p>Apply a formula to multiple cells by duplicating it</p> <p>Use the auto sum tool</p> <p>Apply a formula to calculate the data I need to answer questions</p>	<p>something online.</p> <p>Know what a social media site is and the age restrictions.</p> <p>Know that it's hard to fully understand the meaning behind online content.</p> <p>Know everything online comes from a range of sources</p> <p>Know how to find credible information online.</p> <p>Know how to make strong passwords to secure their information online.</p> <p>Know ways in which they can be kind to others online.</p> <p>Identify ways in which they can secure their information online by creating strong</p>	<p>learning platform respectfully.</p> <p>To create stronger passwords and know not to share them with friends.</p> <p>To identify situations when it's better to wait to communicate face-to-face with a peer than to text them right away.</p> <p>Consider their digital footprints and be mindful about what they read or post online, knowing that it can be misinterpreted</p> <p>Know how online content can be interpreted in different ways through the eyes of different people.</p> <p>Demonstrate ways of protecting their online reputation.</p> <p>Identify ways of working out whether information online is reliable.</p>	<p>condition, if, then, loop,</p>	<p>repetition</p> <p>To decompose a process into stages</p> <p>To construct simple flowchart algorithms</p> <p>To use repetition in algorithms</p> <p>To follow an algorithm accurately to write a program</p> <p>To use repetition in a program effectively</p> <p>To test and debug programs and algorithms</p> <p>To begin to use conditional loops</p> <p>To explore block based programming using prior knowledge</p>	<p>To know what is meant by a 'hoax'.</p> <p>Know what is meant by fake news.</p> <p>Understand the words: reputation public private share Online Offline Anonymous Risks Pretend screen time wellbeing feelings impact habits healthy unhealthy balance hoax, share, motivation, disinformation</p>	<p>importance of doing this responsibly, choosing age-appropriate websites.</p> <p>To explain why someone would need to think carefully before they share.</p> <p>Children recognise the effect their writing or images might have on others.</p> <p>To understand the impact of sharing information online.</p> <p>To understand how quickly others can see information you share online.</p> <p>Recognise the different feelings they may experience when online</p> <p>Identify how screen activities and habits can</p>
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			<p>passwords.</p> <p>Identify what they can do to be kind online.</p> <p>Know how they can protect their online reputation.</p> <p>Know how privacy setting can keep you safe online.</p> <p>Know how to work out whether information online is true and reliable.</p> <p>Understand the words: staying safe, online, public, private, digital footprint, personal information, protect, positive, negative, kindness, profile, real, fake, sources, password, upstander, help, trusted adult, mean, rude, bully, bullying, help, report, guidelines, CEOP, NSPCC, risk</p>					<p>affect people in different ways.</p> <p>Identify some activities and habits as having a good, or not so good, impact on the way people feel.</p>
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	Topic 1 6 lessons + 1 online safety lesson		Topic 2 6 lessons + 1 online safety lesson		Topic 3 6 lessons + 2 online safety lesson		Online Safety 4 lessons	
5	Networks and the internet		Crumble Controllers		Collaborative Working		Topic 1: Digital Wellbeing 2 Topic 2: Project Evolve: Reporting Problems Topic 3: But it's just a game No Key Task for online safety units	
Assess	Key Task: To create a webpage to explain the WWW is and how search engines locate information.		Key Task: To design, program and test a carousel with a crumble controller.		Key Task: Create a Google Slide presentation about African animals.			
	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To
	<p>Know what a Wide Area Network is.</p> <p>Know what a packet is.</p> <p>Understand computer networks including the internet</p> <p>Know what the internet and World Wide Web are.</p> <p>Understand how search engines work (selecting, sorting and ranking)</p> <p>What the internet is.</p> <p>Know there is a difference between the internet and the WWW.</p> <p>Know that LANs can provide multiple services, such as the world wide web</p>	<p>Use diagrams and text within content blocks on an itslearning page.</p> <p>Understand that webpages are built up of containers.</p> <p>Begin to understand how html can be edited to change a webpage.</p> <p>Explain how the internet provides access to the WWW.</p> <p>Explain the difference between the internet and the world wide web.</p> <p>Explain what the world wide web is used for.</p> <p>Demonstrate how information is sent</p>	<p>Know the uses of computing in the world.</p> <p>Understand the terms upload and download.</p> <p>To know what an infinite loop does</p> <p>To know that a condition is either true or false</p> <p>To know that a condition being met can start an action</p> <p>Understand the words: Inputs Microcontroller, components, connection, infinite loop, output component, motor, repetition, count-controlled loop, Crumble controller, switch, LED,</p>	<p>Plan and implement a program using inputs and outputs.</p> <p>Test and evaluate a program at regular intervals during development.</p> <p>Debug problems while programming.</p> <p>To create a simple circuit and connect it to a microcontroller</p> <p>To program a microcontroller to make an LED switch on</p> <p>To connect more than one output component to a microcontroller</p> <p>To use a count-controlled loop to control outputs</p>	<p>To understand and use transitions and animations.</p> <p>To know what can be included in a presentation slide</p> <p>To locate the key tools within google slides: new slide, layout, text box, theme</p> <p>To understand usage rights. Know that more than one person can contribute to a single document.</p> <p>To know the types of files that you can use on google drive</p> <p>Understand the words:</p>	<p>To deliver a presentation</p> <p>To evaluate the work of others. To reflect on their own work.</p> <p>To create a presentation within google slides using insert slide, slides layout, text box, images</p> <p>To evaluate the use of layout features within a slide of a presentation</p> <p>To add and respond to comments on google slides.</p> <p>To format text and objects in G Slides.</p> <p>To create a presentation</p>	<p>To understand some of the difficulties some people may have, including online</p> <p>To understand how to report problems online and can name a number of reporting routes that I could use or suggest to someone else</p> <p>To know some strategies, tips or advice to promote health and wellbeing with regards to technology.</p> <p>To know common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.</p>	<p>Children can create a secure password.</p> <p>To describe what I can do to support others online, both friends and people I know less well</p> <p>Children understand appropriate and inappropriate use of the Internet including excessive use.</p> <p>Children recognise the risks and rewards of using Internet communication tools and understand how to protect themselves and the devices they use.</p>

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<p>Understand the opportunities LANs offer for communication and collaboration</p> <p>Know how content can be added and accessed on the World Wide Web (WWW)</p> <p>Understand how keywords are used within an internet search</p> <p>Know that websites and their content are created by people</p> <p>Understand the words: IP address Services Packets Page ranking Selection URL Hyperlink World Wide Web Wide Area Network Internet Service Provider Internet Search engine Copyright</p>	<p>as packets on a network.</p> <p>Explain how a search engine responds to your search requests and locate the answer on the world wide web.</p> <p>Create a web page that ranks highly in search results.</p>	<p>Sparkle, crocodile clips, connect, battery box, program, condition, Input, output, Selection, condition, action, repetition, debug, variables,</p>	<p>To design sequences that use count-controlled loops</p> <p>To design a conditional loop</p> <p>To program a microcontroller to respond to an input</p> <p>To identify a condition and an action in my project</p> <p>To use selection (an 'if...then...' statement) to direct the flow of a program</p> <p>To identify a real-world example of a condition starting an action</p> <p>To create a detailed drawing of a project and explain what it will do</p> <p>To write an algorithm that describes what a model will do</p> <p>To use selection to produce an intended outcome</p>	<p>collaborative, slides, spreadsheets, presentation, forms, drawings, network, storage, cloud, files, storage, layout, format, title, content, hyperlink, slide, format, share, share, comment, @ / mention, present, animation, transition, full screen</p>	<p>within google slides using insert slide, slides layout, text box, images</p> <p>To add images to slides</p> <p>To work in a group to plan a presentation</p> <p>To apply a theme to a G Slides presentation</p> <p>To format text and objects in G Slides.</p> <p>To know how to effectively design a slide as part of a presentation</p> <p>To edit a shared document using google docs.</p>	<p>To know the pressures that technology can place on someone and how / when they could manage this.</p> <p>Know what Digital Wellbeing means to them.</p> <p>Identify how screen activities and habits can affect people in different ways – with both a positive and negative impact on our Digital Wellbeing.</p> <p>Understand the words: Addiction time limit balance age limit PEGI parental digital, wellbeing, balance, positive, negative, influence, screen time, impact, report, help, bullying, NSPCC, CEOP, trusted adult</p>	<p>Children understand the need to respect the rights of other users, and understand their own responsibility for information that is shared and how it may impact on others.</p> <p>Children recognise the need to choose age-appropriate games to play on their devices, and when to limit use.</p> <p>Reflect on our own screen use.</p> <p>Understand that using technology can be a distraction from other things, in both a positive and negative way. Identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help</p>
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				To test and debug a project				<p>with limiting this time.</p> <p>To understand that persuasive design are used to keep users engaged (current and future use).</p>
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	Topic 1 6 lessons + 1 online safety lesson		Topic 2 6 lessons + 1 online safety lesson		Topic 3 6 lessons + 1 online safety lesson		Online Safety 3 lessons	
6	Video Editing		Crumble Controllers		Online Safety		Topic 1: #LiveSkills Topic 2: Troll Stinks Topic 3: Project Evolve: Loot Boxes and Purchases <i>No Key Task for online safety units</i>	
Asses	Key Task: Produce a complete video for school council campaign using editing features of imovie.		Key Task: To design, program and test a vehicle with a crumble controller.		Key Task: To show empathy to the recipient of a negative message and rephrase it using kinder language.			
	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To	To Know	To Know How To
	Know that video is a visual media format	Evaluate and compare videos	To know that a wide range of input and output components can be used within a computer program.	Connect a sparkle correctly as an output for the crumble controller	To understand what having a positive digital footprint means.	Identify ways in which they can start to build a positive digital footprint.	Children know their own right to be protected from the inappropriate use of technology by others and their responsibility to report concerns.	Children understand how to use social networking websites appropriately, keeping an adult informed about their online activity.
	Know different software and hardware that can be used to make a video –clips, iMovie, DoInk	Know and experiment with different camera angles	Understand how technology is used beyond the classroom.	Combine knowledge of electricity with programming skills.	Explain what it means to have a positive digital footprint, and why this is important.	Identify sources of support for someone who is worried about anything online.	Children know the need to respect the rights of other users, and understand their own responsibility for information that is shared and how it may impact on others.	They make good choices when they present themselves online.
	Name some camera shots / angles including close up, longshot and the impact of angles.	To select appropriate software and hardware to complete a given task.	To know what a sparkle is	Make and evaluate a computing project including variables, repetition and selection (eg if... else...) based on a condition	Explain things someone can do to build a positive digital footprint.	Know how to develop respectful, empathetic and healthy online relationships.		Children recognise the appropriate online tools to collaborate and communicate with others, understanding how to protect themselves from online bullying or causing hurt to others, especially when using social networks.
	Know that videos are saved in different formats for software and need to be exported when complete.	Use video, picture and text to communicate an idea.	Know about the life, work and impact of Alan Turing.	To use wide range of input and output components within a computer program	Know how to be a critical consumer while online.	Identify ways to manage and respond in a healthy and safe way to hurtful online behaviour.	To know that others may not be who they say they are online.	
	Know how effective different techniques are within a video.	Capture video using a range of filming techniques	Understand the words: decode, code, cipher, logic, decomposition, Enigma code, Alan Turing, Bletchley Park, cross-referencing, collaboration, presentation,	Evaluate and debug each section of a program to ensure the finished product fits the brief.	Understand and identify about different online scams, including what ‘phishing’ means.	Demonstrate ways to build positive and healthy online	To know that not everything on the internet is true.	
	Understand the words: Mute Voiceover Overlay Transition	Use sounds, music, text, video effects and overlay/green screen to create a video.		Plan a computing project including variables, repetition	Describe ways to critically evaluate what we see on social media.		Understand self-esteem and confidence in	
	Save a video during editing and							

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	<p>Crop Footage Shots Angles Ken burns Transition Text Soundtrack Filter Edit Upload Export Save</p>	<p>export the finished item.</p> <p>Store, retrieve, and export my recording using editing software</p> <p>Share ideas and plan as a group for a video making project.</p> <p>To know the purpose of a story board and use it to plan a video</p> <p>Recognise that my choices when making a video will impact the quality of the final outcome</p>	<p>crumble, scratch, block-based code, program, sparkles, micro usb port, + and – terminals, proximity sensor, light sensor, LED, crumble, variable, repetition, conditional, selection, input, output</p>	<p>and selection (eg if... else...) based on a condition</p> <p>To apply their programming knowledge to complete a task.</p> <p>To use repetition within a program To collaborate in a team to create a presentation within a shared document</p> <p>To research, create and present a presentation about Alan Turing</p> <p>For pupils to evaluate their own and others' work, according to given criteria</p> <p>To understand how to decompose a problem into smaller parts, to help solve it</p> <p>To use logical reasoning to work through a problem and solve a challenging code.</p>	<p>Explain how social media can mislead or misrepresent reality.</p> <p>Identify sources of support that can help friends and peers if they are experiencing hurtful behaviour online.</p> <p>Know how mean behaviour online can lead to conflicts at school.</p> <p>Know online tools for reporting abuse.</p> <p>Identify different ways to step in and be a helper in a specific situation.</p> <p>Understand the words: online reputation, digital footprint, private, personal, information, point of view, phishing, deceptive, disinformation, misinformation, skeptical, deceptive news,</p>	<p>relationships and friendships.</p> <p>Identify ways to manage and respond in a healthy and safe way to hurtful online behaviour.</p> <p>Describe strategies they can use to respond to hurtful online behaviour, in ways that keep them safer and more healthy.</p> <p>Identify ways to avoid escalating conflicts online.</p> <p>Identify specific ways to respond to bullying when you see it.</p> <p>Know how to behave if you experience harassment.</p> <p>Know how to recognise upsetting content and strategies for refusing and reporting it.</p>	<p>terms other than appearance</p> <p>Understand what flattery might look like</p> <p>Understand the words: Live Stream Self Esteem Trust reliable, positive, negative, body-image, flatter, compliment report behaviour</p>	<p>Understand that there can be good or bad attention online and in person.</p> <p>Identify ways to build own self esteem and begin to understand their impact on the self esteem of others.</p> <p>To identify untrustworthy behavior online.</p> <p>Recognise characteristics they like about themselves</p> <p>Share a compliment based on personality to someone else</p>
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				<p>To know how to apply algebra to crack a code.</p>	<p>scam, malicious, catfishing, conflict, bullying, cyberbullying, harassment, respect, healthy, empathy, kindness, conflict, bullying, cyberbullying, harassment, media, upstander, report, online, NSPCC, CEOP</p>	<p>Explain what to do or say when they see upsetting stuff online – and understand they can refuse to watch or engage with it.</p>		
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