

Computing Progression of Skills and Knowledge
Willaston Primary Academy

EYFS: In this unit, children will be taught to:					
Core Skills <i>Key skills required to use technology with success.</i>		Apps & Opps	Computer Science <i>NC: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.</i>		Apps & Opps
<ul style="list-style-type: none"> Use a mouse/trackpad to move and place items on a screen, with increasing accuracy. Interact purposefully with icons and buttons in age-appropriate software using mouse clicks or taps. Develop mouse control through simple activities on-screen including click- and-drag, drag-and-drop. Use a variety of electronic toys in play situations, with the intention of finding out how it works. 	SeeSaw app Classroom touch screen	Computational Thinking <ul style="list-style-type: none"> I can follow simple oral algorithms I can spot simple patterns I can sequence simple familiar tasks 	Offline Games (directions across the room, or with toy cars on a table)		
		Coding and Programming <ul style="list-style-type: none"> I can input a simple sequence of commands to control a digital device with support 	Lego coding express (click here for details) Daisy the Dinosaur		
		Computer Networks <ul style="list-style-type: none"> Introduced in KS2 			
Digital Literacy <i>NC: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.</i>		Apps & Opps	Information Technology <i>NC: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.</i>		Apps & Opps
Self Image and Identity	<ul style="list-style-type: none"> Recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset. Explain how this could be either in real life or online. 	Project Evolve (Click here)	Word Processing <ul style="list-style-type: none"> Play on a touch screen game and use computers/keyboards/mouse in role play. Type letters with increasing confidence using a keyboard and tablet. Dictate short, clear sentences into a digital device. 	Coding Express, Seesaw, Pic Collage	
Online Relationships	<ul style="list-style-type: none"> I can recognise some ways in which the internet can be used to communicate. Give examples of how I (might) use technology to communicate with people I know. 		Data Handling <ul style="list-style-type: none"> Identify a chart. Sort physical objects, take a picture and discuss what I have done. Present simple data on a digital device. 	Seesaw	
Online Reputation	<ul style="list-style-type: none"> Identify ways that I can put information on the internet. 		Presentation/ Web Design/ e-book creation <ul style="list-style-type: none"> Record my voice over a picture. Create a simple digital collage. Move and resize images with my fingers or mouse. 	Seesaw	
Online Bullying	<ul style="list-style-type: none"> Describe ways that some people can be unkind online. I can offer examples of how this can make others feel. 		Animation <ul style="list-style-type: none"> Animate a simple image to speak in role. Create a simple animation to tell a story including more than one character. Know the difference between a photography and video. 	Chatter Pix Kids, Puppet Pals	
Managing Online Information	<ul style="list-style-type: none"> Talk about how I can use the internet to find things out. Identify devices I could use to access information on the internet. Give simple examples of how to find information (e.g. search engine, voice activated searching). 		Video Creation <ul style="list-style-type: none"> Record a short film using the camera. Record and play a film. Watch films back. 	Google Camera App, Shadow Puppets Edu, Seesaw	
Health, Wellbeing and lifestyle	<ul style="list-style-type: none"> I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples. 		Photography & Digital Art <ul style="list-style-type: none"> Take a photograph. Take a photograph and use it in an app. Use a painting app and explore the paint and brush tools. 	iPad Camera, Seesaw app, Draw and Tell	
Privacy and Security	<ul style="list-style-type: none"> Identify some simple examples of my personal information (e.g. name, address, birthday, age, location). Describe the people I can trust and can share this with; Explain why I can trust them. 		Augmented Reality <ul style="list-style-type: none"> Scan a QR code. Explore a 360 image. Talk about AR objects in my class. 	Seesaw, Animals 360, Figment AR	
Copyright and Ownership	<ul style="list-style-type: none"> That work I create belongs to me. Name my work so that others know it belongs to me. 		Sound <ul style="list-style-type: none"> Record sounds with different resources. Find ways to change your voice (tube, tin can, shouting to create an echo). Record sounds/voices in storytelling and explanations. 	Seesaw, talking tins,	

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Year 1: In this unit, children will be taught to:			
Core Skills <i>Key skills required to use technology with success.</i>	Apps & Opps	Computer Science <i>NC: Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</i> <i>Create and debug simple programs</i> <i>Use logical reasoning to predict the behaviour of simple programs</i>	Apps & Opps
<ul style="list-style-type: none"> Be able to log onto an account on a computer, iPad or program with support. Can enter text using single fingers, beginning to use more than one hand. Can use a mouse/trackpad to move and place items accurately on a screen. Use double click or tap where needed (if appropriate). Be able to use a range of methods of interacting with a program e.g. right click, drag and drop, long tap etc. Be able to save and retrieve work with support. 	SeeSaw activities Log in/navigate TT Rock Stars Recover iPad photos Class laptops basic boot/off. Lego Wedo, app with support and connect hub.	Computational Thinking <ul style="list-style-type: none"> I understand what algorithms are I can write simple algorithms I understand the sequence of algorithms is important I can debug simple algorithms I understand that algorithms are implemented as programs on digital devices 	Offline games directions across the room, instructions for getting ready for the day. Sequencing
		Coding and Programming <ul style="list-style-type: none"> I can create a simple program e.g. sequence of instructions for a Bee Bot I can use sequence in programs I can locate and fix bugs in my program 	Beebots Scratch Jnr activities 1-5 theme to class topic (click here) Lego Wedo Snail and Fan
		Computer Networks <ul style="list-style-type: none"> Introduced in KS2 	
Digital Literacy	Apps & Opps	Information Technology <i>NC: use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i>	Apps / Opps
<i>NC: recognise common uses of information technology beyond school use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies</i>		Project Evolve (Click here) World Safer Internet Day Feb	Seesaw, Pic Collage Pages/ Word Book Creator
Self-Image and Identity <ul style="list-style-type: none"> Recognise that there may be people online who could make me feel sad, embarrassed or upset. If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust. 	Word Processing <ul style="list-style-type: none"> Confidently type words quickly and correctly on a digital device. Use the space bar to make space and delete to delete letters/words. Make a new line using enter/return. Dictate into a digital device more accurately and with punctuation. 		
	Data Handling <ul style="list-style-type: none"> Sort images or text into two or more categories on a digital device. Collect data on a topic. Create a tally chart and pictogram. Record myself explaining what I have done and what it shows me. 		Seesaw Pic Collage
Online Relationships <ul style="list-style-type: none"> Use the internet with adult support to communicate with people I know. Explain why it is important to be considerate and kind to people online. 	Presentation/ Web Design/ e-book creation <ul style="list-style-type: none"> Add labels to an image Order images to create a simple storyboard. Create a simple spider diagram. Sequence a series of pictures to explain my understanding of a topic 		Seesaw Pic Collage
Online Reputation <ul style="list-style-type: none"> Recognise that information can stay online and could be copied. Describe what information I should not put online without asking a trusted adult first 	Animation <ul style="list-style-type: none"> Add filters and stickers to enhance an animation of a character. Create an animation to tell a story with more than one scene. Add my own pictures to my story animation. 		Chatter Pix Kids, Puppet Pals
Online Bullying <ul style="list-style-type: none"> Describe how to behave online in ways that do not upset others and can give examples. 	Video Creation <ul style="list-style-type: none"> Record a film using the camera app. I can select images and record a voiceover. I can highlight and zoom into images as I record. 		Shadow Puppets Edu, iMovie
Managing Online Information <ul style="list-style-type: none"> Use the internet to find things out. Use simple keywords in search engines Describe and demonstrate how to get help from a trusted adult or helpline if I find content that makes me feel sad, uncomfortable worried or frightened. 	Photography & Digital Art <ul style="list-style-type: none"> Edit a photo with simple tools Use a paint/drawing app to create a digital image Begin to cut out an image to layer on another image. 		Camera Markup Photobooth Seesaw Keynote Pic Collage Notes
Health, Well-being and Lifestyle <ul style="list-style-type: none"> Explain rules to keep us safe when we are using technology both in and beyond the home. Give examples of some of these rules. 	Augmented Reality <ul style="list-style-type: none"> I can explore an interactive 360 image. I can scan a trigger image to begin a AR experience. I can pretend to interact with AR objects 		Google Expeditions, Figment AR AR Makr
Privacy and Security <ul style="list-style-type: none"> Recognise more detailed examples of information that is personal to me (e.g. where I live, my family's names, where I go to school). Explain why I should always ask a trusted adult before I share any information about myself online. Explain how passwords can be used to protect information and devices. 	Sound <ul style="list-style-type: none"> I can create a sequence of sounds (instruments, apps/software) I can explore short and long sounds. I can record my voice and add different effects 		Seesaw, Voice Memo
Copyright Ownership <ul style="list-style-type: none"> Explain why work I create using technology belongs to me. Say why it belongs to me (e.g. 'it is my idea' or 'I designed it'). Save my work so that others know it belongs to me (e.g. filename, name on content). 			

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Year 2: In this unit, children will be taught to:			
Core Skills <i>Key skills required to use technology with success.</i>	Apps & Opps	Computer Science <i>NC: Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</i> <i>Create and debug simple programs</i> <i>Use logical reasoning to predict the behaviour of simple programs</i>	Apps & Opps
<ul style="list-style-type: none"> Log into and out of an account on a computer or program independently. Enter text using more than one finger, beginning to use both hands. Shut down a program or device at the end of a session. Use a mouse/trackpad to move and place items accurately on a screen. Use double click or tap, pinch to zoom, swipe etc. Save and retrieve work effectively. With clear guidance, navigate a folder system e.g. Shared Drive, iPad camera roll or Dropbox. Use basic keyboard keys e.g. backspace, space bar, return. 	SeeSaw activities Log in/navigate TT Rock Stars Recover iPad photos Class laptops basic boot/off. Lego Wedo, app with support and connect hub.	Computational Thinking <ul style="list-style-type: none"> Write algorithms for everyday tasks Use logical reasoning to predict the outcome of algorithms Understand decomposition is breaking objects/processes down Implement simple algorithms on digital devices I can debug algorithms 	Offline Robot Teacher Sandwich Maker <i>Bee Bots, Daisy the Dino</i>
		Coding and Programming <ul style="list-style-type: none"> Understand programs execute by following precise and unambiguous instructions I can create programs on a variety of digital devices Debug programs of increasing complexity Use logical reasoning to predict the outcome of simple programs 	Kodable Scratch Jnr activities 6-9 theme to class topic (click here) Lego Wedo Moving Satellite - Milos
		Computer Networks <ul style="list-style-type: none"> Introduced in KS2 	
Digital Literacy	Apps & Opps	Information Technology <i>NC: use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i>	Apps / Opps
<i>NC: recognise common uses of information technology beyond school use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies</i>	Project Evolve (Click here) World Safer Internet Day Feb	Word Processing <ul style="list-style-type: none"> Use the space bar only once between words and use touch to navigate to words letter to edit. Copy and paste images and text. Use caps locks for capital letters. Add images alongside text in a word processed document. Dictate longer passages into a digital device with accurate punctuation. 	Seesaw, Pic Collage Pages/ Word Book Creator Popplet
Self-image and Identity <ul style="list-style-type: none"> Explain how other people's identity online can be different to their identity in real life. Describe ways in which people might make themselves look different online. Give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help 		Data Handling <ul style="list-style-type: none"> Sort digital objects into a range of charts such as Venn diagrams, carroll diagrams and bar charts using different apps and software. Orally record myself explaining what the data shows me. Create a branching database using questions. 	Seesaw Pic Collage Plickers 2Investigate
Online Relationship <ul style="list-style-type: none"> Use the internet to communicate with people I don't know well (e.g. email a penpal in another school/ country). Give examples of how I might use technology to communicate with others I don't know well. 			
Online Reputation <ul style="list-style-type: none"> I can explain how information put online about me can last for a long time. I know who to talk to if I think someone has made a mistake about putting something online. 		Presentation/ Web Design/ e-book creation <ul style="list-style-type: none"> Add voice labels to an image. Add a voice recording to a storyboard. Add speech bubbles to an image to show what a character thinks. Import images to a project from the web and camera roll 	Seesaw Pic Collage Thinglink Boo Creator Balloon Stickies +
Online Bullying <ul style="list-style-type: none"> I can give examples of bullying behaviour and how it could look online. I understand how bullying can make someone feel. I can talk about how someone can/would get help about being bullied online or offline. 		Animation <ul style="list-style-type: none"> Create multiple animations of an image and edit these together. Create a simple stop motion animation. Explain how an animation/flip book works 	Chatter Pix Kids Puppet Pals Seesaw I Can Animate
Managing Online Information <ul style="list-style-type: none"> Use keywords in search engines. Demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). Explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, Siri). Explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. Explain why some information I find online may not be true. 		Video Creation <ul style="list-style-type: none"> I can write and record a script using a teleprompter tool. I can use tools to add effects to a video I can begin to use green screen techniques with support 	Shadow Puppets Edu, iMovie, Adobe SparkVideo
Health, Well-being and lifestyle <ul style="list-style-type: none"> Explain simple guidance for using technology in different environments and settings. Say how those rules/guides can help me 		Photography & Digital Art <ul style="list-style-type: none"> Edit a photo (crop, filters, mark up etc) Select and use tools to create digital imagery - controlling the pen and using the fill tool Cut images with accuracy to layer on other images. 	Camera Markup Photobooth Seesaw Keynote Pic Collage Notes
Privacy and Security <ul style="list-style-type: none"> Describe why other people's work belongs to them. Recognise that content on the internet may belong to other people. 		Augmented Reality <ul style="list-style-type: none"> Draw my own 360 image and explore it in VR. Bring objects into my surroundings using Augmented Reality. Create my own QR code. (qrcode-monkey.com) 	Google Expeditions, Figment AR AR Makr Keynote Thinglink
Copyright and Ownership <ul style="list-style-type: none"> Describe why other people's work belongs to them. Recognise that content on the internet may belong to other people. 		Sound <ul style="list-style-type: none"> Create a musical composition using software Record my own sound effects. Record my voice over a compositions to perform a song. 	Seesaw, Voice Memo Loopimal

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Year 3: In this unit, children will be taught to:				
<p>Core Skills <i>Key skills required to use technology with success.</i></p>	<p>Apps & Opps</p>	<p>Computer Science <i>NC: 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. 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.</i></p>	<p>Apps & Opps</p>	
<ul style="list-style-type: none"> When using a mouse or trackpad, be able to use left/right/double click and scroll. Able to use more than one hand to enter text, using the keyboard. Can use cut, copy and paste tools by right clicking or using the edit toolbar. Save and retrieve work effectively. With guidance, be able to navigate a folder system to find and open a specific file e.g. Shared Drive, iPad camera roll or Dropbox. Know and use basic keyboard function keys e.g. shift, caps lock, space bar, return.. 	<p>SeeSaw both on laptop and ipad.</p> <p>Shared drive saving and folder creation</p> <p>Word</p> <p>Lessons to teach basic key functions and typing on laptops typing club (click here).</p>	<p>Computational Thinking</p> <ul style="list-style-type: none"> Create algorithms for use when programming Decompose tasks (such as animations) into separate steps to create an algorithm Understand abstraction is focusing on important information Identify patterns in an algorithm I can use repetition in algorithms <p>Coding and Programming</p> <ul style="list-style-type: none"> Design and create programs Write programs that accomplish specific goals Use repetition in programs Work with various forms of input <p>Computer Networks</p> <ul style="list-style-type: none"> Understand that computers in a school are connected together in a network Understand why computers are networked Understand the difference between the Internet and the World Wide Web (WWW) 	<p>Offline activities. discussions</p> <p>Microbits Heart, Beating Heart, Shining sunbeams, Sunshine sensor, step counter (click here)</p> <p>Lego Wedo science projects 1 - 8</p> <p>Scratch coding online tutorials (click here) up to create a story code using scratch online (click here)</p> <p>Networks Lesson Network Info and vids Network Hunt – staff share</p>	
<p>Digital Literacy <i>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</i></p>	<p>Apps & Opps</p>	<p>Information Technology <i>NC: 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. 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.</i></p>	<p>Apps / Opps</p>	
<p>Self-image and identity</p>	<ul style="list-style-type: none"> Explain what is meant by the term 'identity'. Explain how I can represent myself in different ways online. Explain ways in which and why I might change my identity depending on what I am doing online (e.g. gaming; using an avatar; social media). 	<p>Project Evolve (Click here)</p> <p>World Safer Internet Day Feb</p>	<p>Word Processing</p> <ul style="list-style-type: none"> Use index fingers on keyboard home keys (f/j), use left fingers for a/s/ d/f/g, and use right fingers for h/j/k/l • Edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. • Use cut, copy and paste to quickly duplicate and organise text. 	<p>Seesaw, Pic Collage Pages/ Word Book Creator Popplet</p>
<p>Online Bullying</p>	<ul style="list-style-type: none"> Explain what bullying is and can describe how people may bully others. Describe rules about how to behave online and how I follow them 			
<p>Online Reputation</p>	<ul style="list-style-type: none"> Search for information about myself online. Recognise I need to be careful before I share anything about myself or others online. Know who I should ask if I am not sure if I should put something online. 		<p>Data Handling</p> <ul style="list-style-type: none"> Create my own sorting diagram and complete a data handling activity with it using images and text. Start to input simple data into a spreadsheet. Create a feelings chart exploring a story or character's feelings. 	<p>Use create graph classic click here Excel</p>
<p>Managing Online Info</p>	<ul style="list-style-type: none"> Explain what bullying is and can describe how people may bully others. Describe rules about how to behave online and how I follow them. 		<p>Presentation/ Web Design/ e-book creation</p> <ul style="list-style-type: none"> Create an interactive comic with sounds, formatted text and video. Annotate an image with videos Create a simple web page. Create a simple digital timeline/mindmap 	<p>Seesaw Pic Collage, Thinglink, Book Creator, Keynote, Adobe Spark Page, Balloon Stickies +</p>
<p>Health, Well-being and Lifestyle</p>	<ul style="list-style-type: none"> Explain why spending too much time using technology can sometimes have a negative impact on me; give some examples of activities where it is easy to spend a lot of time engaged (e.g. games, films, videos). 		<p>Animation</p> <ul style="list-style-type: none"> I can create animations of faces to speak in role with more life-like realistic outcomes. I can improve stop motion animation clips with techniques like onion skinning. I can use animation tools in presenting software to create simple animations. 	<p>Chatter Pix Kids Puppet Pals Seesaw I Can Animate iFunFace Toontastic 3D</p>
<p>Privacy and Security</p>	<ul style="list-style-type: none"> Give reasons why I should only share information with people I choose to and can trust. Explain that if I am not sure or I feel pressured, I should ask a trusted adult. Understand and can give reasons why passwords are important. Describe simple strategies for creating and keeping passwords private. Describe how connected devices can collect and share my information with others. 		<p>Video Creation</p> <ul style="list-style-type: none"> Sequence clips of mixed media in a timeline and record a voiceover Trim and cut film clips and add titles and transitions Independently create a green screen clip. Create my own movie trailer 	<p>Shadow Puppets Edu, iMovie, Adobe SparkVideo, Videorama</p>
			<p>Photography & Digital Art</p> <ul style="list-style-type: none"> Confidently take and manipulate photos Create a digital image using a range of tools, pens, brushes and effects Create transparent images with Instant Alpha 	<p>Camera Markup Photobooth Seesaw Keynote Pic Collage Notes.</p>
			<p>Augmented Reality</p> <ul style="list-style-type: none"> Create my own digital 360 image and explore it in VR Create my own images and bring it into my surroundings through AR. 	<p>Google Expeditions, Goole Tour Creator Fignment AR, EyeJack, Creator AR Makr, Keynote, Thinglink</p>
			<p>Sound</p> <ul style="list-style-type: none"> Create and edit purposeful compositions using music software to create mood or a certain style Experiment with live loops to create a song. 	<p>GarageBand Live Loops,</p>

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Year 4: In this unit, children will be taught to:			
Core Skills <i>Key skills required to use technology with success.</i>	Apps & Opps	Computer Science <i>NC: 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. 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.</i>	Apps & Opps
<ul style="list-style-type: none"> When using a mouse or trackpad, be able to use left/right/double click and scroll. When typing, hold two hands over different halves of the keyboard and use more than two fingers to enter text. Be able to save, name and retrieve work effectively to a suitable location. If appropriate, print a document. Be able to navigate a folder system to locate a specific file e.g. Shared Drive, iPad camera roll or Dropbox. Know and use keyboard function keys e.g. shift, caps lock, num lock, space bar, return. 	SeeSaw both on laptop and ipad. Shared drive saving and folder creation Word Lessons to teach basic key functions and typing on laptops typing club (click here) .	Computational Thinking <ul style="list-style-type: none"> Use abstraction to focus on what's important in my design Write increasingly more precise algorithms for use when programming. Use simple selection in algorithms Use logical reasoning to detect and correct errors in programs 	Offline activities. discussions
		Coding and Programming <ul style="list-style-type: none"> Use simple selection in programs. Work with various forms of output. Use logical reasoning to systematically detect and correct errors in programs. Work with various forms of output. 	Microbit introduction: Counter, activity picker, compass, thermometer see below. (click here) Lego Wedo Project 9-16 Stem project – chariot race using sphero or lego. Scratch coding online tutorials (click here) Chase Game to video Sensing.using scratch online (click here)
		Computer Networks <ul style="list-style-type: none"> Understand that servers on the Internet are located across the planet. Understand how email is sent across the Internet. Understand how the Internet enables us to collaborate. 	BBC Bitesize – how the internet works and ideas in class.
Digital Literacy <i>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</i>	Apps & Opps	Information Technology <i>NC: 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.</i>	Apps / Opps
Self-image and Identity <ul style="list-style-type: none"> Explain how my online identity can be different to the identity I present in 'real life' Knowing this, describe the right decisions about how I interact with others and how others perceive me. 	Project Evolve (Click here) World Safer Internet Day Feb	Word Processing <ul style="list-style-type: none"> I can combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets. Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text. Use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other AI technology. 	Seesaw, Pic Collage Pages/ Word Book Creator Popplet Keynote/PowerPoint
Managing Online Info <ul style="list-style-type: none"> Analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. Understand what criteria have to be met before something is a 'fact'. Describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites). Describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. Explain that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people. Explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true. 		Data Handling <ul style="list-style-type: none"> Create my own online multiple choice questionnaire. Input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. Understand how data is collected. 	Numbers Excel
Health, Well-being and Lifestyle <ul style="list-style-type: none"> Explain how using technology can distract me from other things I might do or should be doing. Identify times or situations when I might need to limit the amount of time I use technology. Suggest strategies to help me limit this time. 		Presentation/ Web Design/ e-book creation <ul style="list-style-type: none"> Create an interactive quiz eBook introducing hyperlinks. Create an eBook with text, images and sound. Create a presentation demonstrating my understanding with a range of media. Create a digital timeline/mindmap and include different media - sound and video. 	Google Sites Pic Collage, Thinglink, Book Creator, Keynote, Adobe Spark Page, Balloon Stickies +
Privacy and Security <ul style="list-style-type: none"> Explain what a strong password is. Describe strategies for keeping my personal information private, depending on context. Explain that others online can pretend to be me or other people, including my friends Suggest reasons why they might do this Explain how internet use can be monitored 		Animation <ul style="list-style-type: none"> Take multiple animations of a character I have created and edit them together for a longer video. Software to create a 3D animated story. Use line draw tool to create animations. 	Chatter Pix Kids Puppet Pals Seesaw, I Can Animate Animate Anything, iFunFace Toontastic 3D Stop Motion Studio
Online Reputation <ul style="list-style-type: none"> Describe how others can find out information about me by looking online. Explain ways that some of the information about me online could have been created, copied or shared by others. 		Video Creation <ul style="list-style-type: none"> Add music and sound effects to my films Add animated titles and transitions Add simple subtitles to a video clip. Confidently use green screen adding animated backgrounds. 	Shadow Puppets Edu, iMovie, Adobe SparkVideo, Videorama, Explain Everything, Chromavid
Online Bullying <ul style="list-style-type: none"> Identify some online technologies where bullying might take place. Describe ways people can be bullied through a range of media (e.g. image, video, text, chat). Explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation). 		Photography & Digital Art <ul style="list-style-type: none"> Enhance digital images and photographs using crop, brightness, contrast & resize Manipulate shapes to create digital art. Draw a series of images and export as an animated GIF. 	Camera Markup Photobooth Seesaw Keynote Pic Collage Notes. Paper, ImgPlay
Copyright and Ownership <ul style="list-style-type: none"> When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. Give some simple examples. 		Augmented Reality <ul style="list-style-type: none"> Create my own 360 video. Use the camera to create a 360 image. Add multiple objects into my surroundings through AR to explain a concept. 	Google Expeditions, Goole Tour Creator Figment AR, EyeJack, Creator AR Makr, Keynote, Thinglink
Online Relationships <ul style="list-style-type: none"> Describe strategies for safe and fun experiences in a range of online social environments Give examples of how to be respectful to others online. 		Sound <ul style="list-style-type: none"> Edit sound effects for a purpose. Create a simple four chord song following the correct rhythm. Record a radio broadcast or audiobook. 	GarageBand Anchor Voice Memos Seesaw

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Year 5: In this unit, children will be taught to:			
Core Skills <i>Key skills required to use technology with success.</i>	Apps & Opps	Computer Science <i>NC: 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. 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.</i>	Apps & Opps
<ul style="list-style-type: none"> When using a mouse or trackpad, be able to use left/right/double click and scroll. When typing, hold two hands over different halves of the keyboard and use more than two fingers to enter text. Be able to save, name and retrieve work effectively to a suitable location. If appropriate, print a document. Be able to navigate a folder system to locate a specific file e.g. Shared Drive, iPad camera roll or Dropbox. Know and use keyboard function keys e.g. shift, caps lock, num lock, space bar, return. 	SeeSaw both on laptop and iPad. Shared drive saving and folder creation Word Lessons to teach basic key functions and typing on laptops typing club (click here).	Computational Thinking <ul style="list-style-type: none"> Use abstraction to focus on what's important in my design Write increasingly more precise algorithms for use when programming. Use simple selection in algorithms Use logical reasoning to detect and correct errors in programs 	Offline activities, discussions, evidenced through coding and evaluation.
		Coding and Programming <ul style="list-style-type: none"> Use simple selection in programs. Work with various forms of output. Use logical reasoning to systematically detect and correct errors in programs. Work with various forms of output. 	Lego Wedo Project 17-20 Super Scratch lessons 1- 6 plus own project.
		Computer Networks <ul style="list-style-type: none"> Understand how we view web pages on the Internet. Use search technologies effectively. Understand that web spiders index the web for search engines. Appreciate how pages are ranked in a search engine. 	How is data transmitted? (Click here) What is a web spider? How do searches work? (click here) Learn about Larry Page (Google)
Digital Literacy <i>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</i>	Apps & Opps	Information Technology <i>NC: 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.</i>	Apps / Opps
Self-image and Identity <ul style="list-style-type: none"> Explain how my online identity can be different to the identity I present in 'real life' Knowing this, describe the right decisions about how I interact with others and how others perceive me. 	Project Evolve (Click here) World Safer Internet Day Feb	Word Processing <ul style="list-style-type: none"> Start to apply other useful effects to my documents such as hyperlinks. Import sounds to accompany and enhance the text in my document. Organise and reorganise text on screen to suit a purpose 	Seesaw, Pic Collage Pages/ Word Book Creator Popplet Keynote/PowerPoint
Managing Online Info <ul style="list-style-type: none"> Use different search technologies. Evaluate digital content and can explain how I make choices from search results. Explain key concepts including: data, information, fact, opinion belief, true, false, valid, reliable and evidence. Understand the difference between online mis-information (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead). Explain what is meant by 'being sceptical'. Give examples of when and why it is important to be 'sceptical'. Explain what is meant by a 'hoax'. Explain why I need to think carefully before I forward anything online. Explain why some information I find online may not be honest, accurate or legal. Explain why information that is on a large number of sites may still be inaccurate or untrue. Assess how this might happen (e.g. the sharing of misinformation either by accident or on purpose). 		Data Handling <ul style="list-style-type: none"> I can create and publish my own online questionnaire and analyse the results. I can use simple formulae to solve calculations including =sum and other statistical functions I can edit and format difference cells in a spreadsheet. 	Numbers Excel Google Forms Google Sheets
Health, Well-being and Lifestyle <ul style="list-style-type: none"> Describe ways technology can affect healthy sleep and can describe some of the issues. Describe some strategies, tips or advice to promote healthy sleep with regards to technology 		Presentation/ Web Design/ e-book creation <ul style="list-style-type: none"> Collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 Create and export an interactive presentation including a variety of media, animations, transitions and other effects. Create an interactive guide to a image by embedding digital content and publishing it online. Create a webpage and embed video. 	Google Sites Pic Collage, Thinglink, Book Creator, Keynote, Adobe Spark Page, Balloon Stickies +
Privacy and Security <ul style="list-style-type: none"> Create and use strong and secure passwords. Explain how many free apps or services may read and share my private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. Explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why I should seek permission from a trusted adult before purchasing. 		Animation <ul style="list-style-type: none"> Record animations of different characters and edit them together to create an interview. Add green screen effects to a stop motion animation. Create flip book animation using digital drawings and export as a Gif or video. 	Chatter Pix Kids Puppet Pals Seesaw, I Can Animate Animate Anything, iFunFace, Plotagon Toontastic 3D Stop Motion Studio
Online Reputation <ul style="list-style-type: none"> Search for information about an individual online and create a summary report of the information. Describe ways that information about people online can be used by others to make judgments about an individual. 		Video Creation <ul style="list-style-type: none"> Use cutaway and split screen tools in iMovie. Evaluate and improve the best video tools to best explain my understanding. Further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool. 	Shadow Puppets Edu, iMovie, Adobe SparkVideo, Videorama, Explain Everything, Chromavid
Online Bullying <ul style="list-style-type: none"> Recognise when someone is upset, hurt or angry online. Describe how to get help for someone that is being bullied online and assess when I need to do or say something or tell someone. Explain how to block abusive users. Explain how I would report online bullying on the apps and platforms that I use. Describe the helpline services who can support me and what I would say and do if I needed their help (e.g. Childline). 		Photography & Digital Art <ul style="list-style-type: none"> Make a digital photo using camera settings Enhance digital photos and images using crop, brightness and resize tools Link and explain how to photoshop images and how this is used in the media. 	Camera Markup Photobooth Seesaw Keynote Pic Collage Notes. Paper, ImgPlay
Copyright and Ownership <ul style="list-style-type: none"> Assess and justify when it is acceptable to use the work of others. Give examples of content that is permitted to be reused. 		Augmented Reality <ul style="list-style-type: none"> Create an interactive VR experience. Create an animated object and bring it into my surroundings through AR Create an AR experience using objects I have created to explain a concept 	Google Expeditions, Goole Tour Creator Fignment AR, EyeJack, Creator, AR Makr, Keynote, Thinglink, Merge Cube
		Sound <ul style="list-style-type: none"> Add voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast. Create a remix of a popular song 	iMovie GarageBand Anchor Voice Memos Seesaw

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Year 6: In this unit, children will be taught to:			
Core Skills <i>Key skills required to use technology with success.</i>	Apps & Opps	Computer Science <i>NC: 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. 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.</i>	Apps & Opps
<ul style="list-style-type: none"> When using a mouse or trackpad, be able to use left/right/double click and scroll. When typing, hold two hands over different halves of the keyboard and use more than two fingers to enter text. Be able to save, name and retrieve work effectively to a suitable location. If appropriate, print a document. Be able to navigate a folder system to locate a specific file e.g. Shared Drive, iPad camera roll or Dropbox. Know and use keyboard function keys e.g. shift, caps lock, num lock, space bar, return. 	SeeSaw both on laptop and ipad. Shared drive saving and folder creation Word Lessons to teach basic key functions and typing on laptops typing club (click here) .	Computational Thinking <ul style="list-style-type: none"> Recognise, and make use, of patterns across programming projects. Write precise algorithms for use when programming. Identify variables needed and their use in selection and repetition. Decompose code into sections for effective debugging. Critically evaluate my work and suggest improvement. 	Offline activities, discussions, evidenced through coding and evaluation.
		Coding and Programming <ul style="list-style-type: none"> Use a range of sequence, selection and repetition commands combined with variables as required to implement my design Create procedures to hide complexity in programs. Identify and write generic code for use across multiple projects. Critically evaluate my work and suggest improvements. Identify and use basic HTML tags (See Computer Networks objectives) 	Lego Wedo Project 21-24 Super Scratch lessons 7-9 plus own project. Python/ Notepad HTML
		Computer Networks <ul style="list-style-type: none"> Understand what HTML is and recognize HTML tags Know a range of HTML tags and can remix a web page Create a webpage using HTML 	<ul style="list-style-type: none"> Looking at source material Website designer
Digital Literacy <i>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</i>	Apps & Opps	Information Technology <i>NC: 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.</i>	Apps / Opps
Self-image and Identity <ul style="list-style-type: none"> Describe ways in which media can shape ideas about gender. Identify messages about gender roles and make judgements based on them. Challenge and explain why it is important to reject inappropriate messages about gender online. Describe issues online that might make me or others feel sad, worried, uncomfortable or frightened. Know and can give examples of how I might get help, both on and offline. Explain why I should keep asking until I get the help I need. 	Project Evolve (Click here) World Safer Internet Day Feb	Word Processing <ul style="list-style-type: none"> Confidently choose the best application to demonstrate my learning. Format text to suit a purpose. Publish my documents online regularly and discuss the audience and purpose of my content 	Seesaw, Pic Collage Pages/ Word Book Creator Popplet Keynote/PowerPoint
Online relationships <ul style="list-style-type: none"> Show I understand my responsibilities for the well-being of others in my online social group. Explain how impulsive and rash communications online may cause problems (e.g. flaming, content produced in live streaming). Demonstrate how I would support others (including those who are having difficulties) online. Demonstrate ways of reporting problems online for both myself and my friends. 		Data Handling <ul style="list-style-type: none"> Write spreadsheet formula to solve more challenging maths problems. Create and publish my own online quiz with a range of media (images and video) 	Numbers Excel Google Forms Google Sheets
Online Bullying <ul style="list-style-type: none"> Explain how I am developing an online reputation which will allow other people to form an opinion of me. Describe some simple ways that help build a positive online reputation. 		Presentation/ Web Design/ e-book creation <ul style="list-style-type: none"> Create a web site which includes a variety of media. Design an app prototype that links multimedia pages together with hyperlinks. Choose applications to communicate to a specific audience. Evaluate my own content and consider ways to improvements. 	Google Sites Pic Collage, Thinglink, Book Creator, Keynote, Adobe Spark Page, Balloon Stickies +
Managing Online Info <ul style="list-style-type: none"> Use search technologies effectively. Explain how search engines work and how results are selected and ranked. Demonstrate the strategies I would apply to be discerning in evaluating digital content. Describe how some online information can be opinion and can offer examples. Explain how and why some people may present 'opinions' as 'facts'. I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how I might encounter these online (e.g. advertising and 'ad targeting'). Demonstrate strategies to enable me to analyse and evaluate the validity of 'facts' and I can explain why using these strategies are important. Identify, flag and report inappropriate content. 		Animation <ul style="list-style-type: none"> Mix animations and videos recordings of myself to create video interviews. Plan, script and create a 3D animation to explain a concept or tell a story. Choose and create different types of animations to best explain my learning. 	Chatter Pix Kids Puppet Pals Seesaw, I Can Animate Animate Anything, iFunFace, Plotagon Toontastic 3D Stop Motion Studio
Health, Well-being and Lifestyle Online Reputation <ul style="list-style-type: none"> Describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. Assess and action different strategies to limit the impact of technology on my health (e.g. nightshift mode, regular breaks, correct posture, sleep, diet and exercise). Explain the importance of self-regulating my use of technology; I can demonstrate the strategies I use to do this (e.g. monitoring my time online, avoiding accidents) 		Video Creation <ul style="list-style-type: none"> Use the green screen masking tool with more than one character. Use picture in picture tools in iMovie. Add animated subtitles to my film to further enhance my creation. Create videos using a range of media - green screen, animations, film and image. 	Shadow Puppets Edu, iMovie, Adobe SparkVideo, Videorama, Explain Everything, Chromavid
Privacy and Security <ul style="list-style-type: none"> Different passwords for a range of online services. Describe effective strategies for managing those passwords (e.g. password managers, acronyms, stories). Know what to do if my password is lost or stolen. Explain what app permissions are and can give some examples from the technology or services I use. Describe simple ways to increase privacy on apps and services that provide privacy settings. Describe ways in which some online content targets people to gain money or information illegally; Describe strategies to help me identify such content (e.g. scams, phishing) 		Photography & Digital Art <ul style="list-style-type: none"> Edit a picture to remove items, add backgrounds, merge 2 photos Evaluate and discuss images explaining effects and filters that have been used to enhance the media. Use3D drawing app to create a realistic representation of world objects 	Camera Markup Photobooth Seesaw Keynote Pic Collage Notes. Paper, ImgPlay Sketchup.
Copyright and Ownership <ul style="list-style-type: none"> Demonstrate the use of search tools to find and access online content which can be reused by others. Demonstrate how to make references to and acknowledge sources I have used from the internet 		Augmented Reality <ul style="list-style-type: none"> Create and upload my own VR Google Expedition. Create an interactive poster using AR. Explain how VR and AR works. 	Google Expeditions, Goole Tour Creator Fimgnt AR, EyeJack, Creator, AR Makr, Keynote, Thinglink, Merge Cube
		Sound <ul style="list-style-type: none"> Add voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast) Compose a soundtrack that can be added to a film project. 	iMovie GarageBand Anchor Voice Memos Seesaw Keezy/Launchpad

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List of hyperlinks

EYFS	Coding Express	https://le-www-live-s.legocdn.com/sc/media/files/support/preschool/coding-express/20180221v2_45002_ps_coding-express_teacher-guide_url_video_uk-7d9228033a87f19ab683881f811123ff.pdf
Y1	Scratch Junior	https://www.scratchjr.org/teach/activities
Y2	Scratch Junior	https://www.scratchjr.org/teach/activities
Y3	Microbit	https://microbit.org/projects/make-it-code-it/
	Scratch	https://resources.scratch.mit.edu/www/guides/en/EducatorGuidesAll.pdf https://scratch.mit.edu/projects/editor/?tutorial=getStarted
	Networks	http://code-it.co.uk/wp-content/uploads/2015/05/networks.pdf http://code-it.co.uk/netintsearch \\msserver\Staff_Share\Network Hunt
	Graphing	https://nces.ed.gov/nceskids/graphing/classic/
Y4	Microbit	https://microbit.org/projects/make-it-code-it/
	Scratch	https://resources.scratch.mit.edu/www/guides/en/EducatorGuidesAll.pdf https://scratch.mit.edu/projects/editor/?tutorial=getStarted
	Networks	https://www.bbc.co.uk/bitesize/clips/z94dq6f
Y5	Networks	https://www.youtube.com/watch?v=ZhEf7e4kopM https://www.youtube.com/watch?v=LVV_93mBfSU
	Scratch	https://willastonantwich-my.sharepoint.com/:f:/g/personal/marksy_willastonacademy_co_uk/EgMwYqTU6HpNvTAPZq1TVHMBZxyOABFm0np7NpZcUZn6rQ?e=ok0IXM
Y6	Scratch	https://willastonantwich-my.sharepoint.com/:f:/g/personal/marksy_willastonacademy_co_uk/EgMwYqTU6HpNvTAPZq1TVHMBZxyOABFm0np7NpZcUZn6rQ?e=ok0IXM
(ALL YEAR GROUPS)	PROJECT EVOLVE (you must create an account)	https://projectevolve.co.uk/toolkit/
	Typing Club	https://www.typingclub.com/
	BBC Computing	https://www.bbc.co.uk/bitesize/subjects/zft3d2p
	Twinkl Coding Resources KS1 (supplementary materials)	https://www.twinkl.co.uk/resources/home-key-stage-1-subjects/ict
	Twinkl Coding Resource KS2 (supplementary materials)	https://www.twinkl.co.uk/resources/keystage2-ks2/ks2-subjects/ks2-ict