



# Dovedale Primary School

## Long term plan

### Computing



YR	<b>Autumn</b>	
	<b>Computer science</b> <b>Bee-Bots</b>	<b>Vocab:</b> program, forward, back, backwards, right, left, arrow, direction, turn, straight on, directions, route, instructions
	<u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning. Children need lots of time to play with the Bee-Bots before KS1.</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To understand that Bee-Bots need to be programmed not pushed</li><li>To experiment with programming a Bee-bot/Blue-bot</li><li>To guide the Bee-Bots to certain points</li></ul>
	<b>Spring</b>	
	<b>Digital literacy</b> <b>Photography</b>	<b>Vocab:</b> iPad, photograph, camera, PicCollage app
	<u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To use the camera feature</li><li>To take photographs</li><li>To use PicCollage, add a title, name and save</li></ul>
	<b>Information technology</b> <b>Technology hunt</b>	<b>Vocab:</b> technology, photographs, appliances
	<u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To recognise that a range of technology is used in places such as homes and schools.</li><li>To select and use technology for particular purposes.</li></ul>



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Summer	
<b>Computer Science</b>	<b>Vocab:</b> Bee-Bot, turn, program
<b>Bee-Bot emulator</b>	
<u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• to follow instructions as part of practical activities and games</li><li>• to learn to give simple instructions</li><li>• to learn that an algorithm is a set of instructions to carry out a task, in a specific order</li><li>• to learn how to explore and tinker with hardware to develop familiarity and introduce relevant vocabulary</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To know how to operate simple equipment.</li><li>• To complete a simple program on a computer.</li><li>• To experiment with programming a Bee-bot/Blue-bot</li><li>• To learn that an algorithm is a set of instructions to carry out a task, in a specific order</li></ul>



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Y1	Autumn	
	Digital Productivity	<b>Vocab:</b> Unit 1: Online safety, report cyberbullying, lock screen, desktop, swipe, app, screenshot Unit 2: 'Home row', delete, return, font, bold, italics, underline, alignment, colour, QR code, upload, show, hide, rename, save Unit 3: Web browser, search engine, key word search, rank, sponsored ads, search results, tab
	<u>Unit 1: iPad basics and online safety</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to access the camera feature using an iPad</li><li>How to identify different ways to stay safe online</li><li>What cyberbullying is</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To know the basics of handling an iPad (open/close apps, navigate desktop, search apps, identify common apps, lock screen, save/open files, take a screenshot)</li><li>To understand the SMART principles: (<b>S</b>tay safe, <b>D</b>on't <b>M</b>eeet up, <b>A</b>ccepting files, <b>R</b>eliable, <b>T</b>ell someone)</li><li>To focus on Meeting, Accepting and Telling</li></ul>
	<u>Unit 2: IT basics</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To understand what the 'home row' is and be able to position their fingers correctly on a keyboard</li><li>To learn some Word Processing basics (font, formatting, and text alignment)</li><li>To learn how to use the return and delete keys</li><li>To be able to 'show' and 'hide' the keyboard on an iPad</li><li>To be able to type some words in a document</li><li>To learn how to scan a QR code and upload a photo to an online platform</li><li>To be able to rename a Pages document</li></ul>



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<u>Unit 3: Internet skills</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To know what a web browser is</li><li>To know what a search engine is</li><li>To use a search engine to perform a key word search</li><li>To understand search results (category tabs, ranking filters)</li><li>To recognise sponsored ads</li><li>To find information and images online</li></ul>
<b>Spring</b>	
<b>Computer Science</b>	<b>Vocab:</b> <b>Unit 1: Code, command, algorithm, sequence, start, stop, move, grow, shrink, repeat</b> <b>Unit 2: Trigger, stop blocks, loops, movement, sprite, stage, move, upload, screenshot</b>
<u>Unit 1: Coding</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To understand some basic coding commands (e.g. move, grow, shrink, repeat) using Daisy the Dino and Tynker Jr</li><li>To know that a command is an instruction</li><li>To know that computers follow (run) commands</li><li>To be able to put code into a logical sequence</li><li>To know that code can contain errors</li></ul>
<u>Unit 2: Coding</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>What an algorithm is</li><li>How start and stop blocks are used in a sequence</li><li>Some basic coding commands</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To use Scratch Jr to create simple algorithms using trigger/stop blocks, loops and movement</li><li>To know what the stage is</li><li>To search and select backgrounds and sprites in a library and add them to the stage</li><li>To be able to remove unwanted code</li><li>To use logical reasoning to work out a task</li><li>To create simple algorithms in a sequence</li></ul>



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<b>Summer</b>		
	<b>Digital Creativity</b>	<b>Vocab:</b> Unit 1: Tab, shapes, format, image, shadow, border, glow, effect, pen, line weight, line style, resize, rotate Unit 2: Slideshow, run show, exit, slide layout, text box, bullet image, gradient Unit 3: Flip, image editing, capture, range, angle, pano, slo-mo, portrait, landscape, filter
	<u>Unit 1: Digital Art</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To be able to access formatting tool options and navigate them using tabs</li><li>To insert and format shapes in Pages to create pictures</li><li>To use the touch screen to resize and rotate a shape</li><li>To format images in Word and apply special effects</li><li>To use the Doodle Buddy app to create patterns using various pen and colour options</li></ul>
	<u>Unit 2: Presentations</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To create a simple slideshow</li><li>To add a new slide to a presentation</li><li>To run and exit a show</li><li>To select layout options for a slide</li><li>To add and format text in a presentation</li><li>To format a background in a presentation</li><li>To add images to a presentation</li></ul>
	<u>Unit 3: iPad cameras</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to use the camera feature</li><li>How to take photographs</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To use the camera on an iPad to capture photos</li><li>To use 'pano' on a camera</li><li>To use 'slo-mo' on a camera</li><li>To use 'camera flip' to reverse a camera</li><li>and simple editing options.</li></ul>



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		<ul style="list-style-type: none"><li>• To know and practice some photography techniques (angle, range, steady hand, focus)</li><li>• To capture photos in portrait and landscape view</li><li>• To apply filters to an image</li></ul>
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Y2	<b>Autumn</b>	
	<b>Digital productivity</b>	<b>Vocab:</b> Unit 1: Annotation tools, text box, border, font options, upload, draw, emoji Unit 2: Pop-ups, chatrooms, block, report, reliability Unit 3: Shapes, text boxes, alignment, special effects, wrap text
	<u>Unit 1: IT skills in SeeSaw</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to access SeeSaw using their class QR code</li><li>• How to upload content to SeeSaw</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To use the 'drawing' interface in Seesaw to practice using the inbuilt annotation tools</li><li>• To use the 'notes' feature in Seesaw to develop typing skills</li><li>• To access the emoji keyboard to add illustrations</li></ul>
	<u>Unit 2: Online Safety</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• The SMART rules of online safety</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To know the dangers of pop-ups, web content and online chatrooms.</li><li>• To understand how to block and report cyberbullies</li><li>• To recognise that websites are not always reliable or trustworthy</li><li>• To know that anyone can create a website</li></ul>
	<u>Unit 3: Word processing</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• What the 'home row' is</li><li>• How to change the font style, size and colour and add emphasis to text</li><li>• How to use the return and delete keys when word processing</li><li>• How to add a shape to a document</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To create and rename a document in Pages</li><li>• To add text and images to a document</li><li>• To add text to a shape</li><li>• To format a document with colour, font options and designs options (shadow, border, line style, line weight)</li><li>• To use zoom to oversee a document layout</li><li>• To make effective use of white space</li><li>• To create posters using images, shapes and text</li></ul>



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	<ul style="list-style-type: none"><li>How to resize and rotate objects</li></ul>	<ul style="list-style-type: none"><li>To know and use alignment options</li></ul>
<b>Spring</b>		
<b>Computer Science</b>		<b>Vocab:</b> <b>Unit 1: Coding, algorithm, sprite, stage, background, grid, shrink, grow, flip, speech, speed, trigger</b> <b>Unit 2: Coding, command, run, debug, format, slideshow, screenshot, import, transition</b>
<u>Unit 1: Coding</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to create simple algorithms in Scratch Jr using start / stop blocks and movement blocks</li><li>How to select backgrounds and sprites in Scratch Jr</li></ul>		<u>End point</u> <ul style="list-style-type: none"><li>To know that an algorithm is a set of step-by-step instructions</li><li>To use Scratch Jr to create an animation</li><li>To learn new commands to resize, flip, add speech, and change the speed of movement</li><li>To add additional scenes to an animation</li><li>To enable and disable stage gridlines to calculate distance</li><li>To set the start trigger to 'on tap'</li></ul>
<u>Unit 2: Presentations and Coding</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to create algorithms using a variety of commands in a logical sequence</li><li>How to create a simple slideshow with text and images</li></ul>		<u>End point</u> <ul style="list-style-type: none"><li>To add screenshots of code (from Coding Safari) to a presentation and annotate them using text boxes</li><li>To format a presentation with effective fonts and use of colour.</li><li>To apply transition effects to a slideshow</li></ul>





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<b>Summer</b>		
	<b>Digital Creativity</b>	<b>Vocab:</b> <b>Unit 1: Comic, book, square, frames, gutters, speech, text, images, format, full screen</b> <b>Unit 2: Screenshot, upload, coding, algorithm, comment, annotate</b>
	<u>Unit 1: Book Creator</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• New learning</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• “Animal Madness”. To create a simple comic using Book Creator.</li><li>• To use frames, speech/thought bubbles, text and images.</li><li>• To format the gutters by adding colour and create images for the comic using backgrounds and sprites in the Scratch Jr library.</li></ul>
	<u>Unit 2: Coding</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to use a range of trigger blocks and basic end blocks</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To complete coding tasks in Tynker Jr and on Hour of Code</li><li>• To screenshot code and upload to Seesaw</li><li>• To use the annotation tools and ‘comment’ features in Seesaw to show understanding.</li></ul>



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Y3	<b>Autumn</b>	
	<b>Digital Productivity</b>	<b>Vocab:</b> Unit 1: Format, font, font style, effects, Bluetooth, keyboard, touch typing, home row Unit 2: Logo, text box, pen, pencil, erase, magic pen, background, shapes, emoji, style, edit, delete Unit 3: Slide, run show, image, text, copy, paste, transparent, search filter, custom animation, transition, gradient
	<u>Unit 1: Typing skills</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• What the 'home row' is</li><li>• How to change the font style, size and colour and add emphasis to text</li><li>• How to use the return and delete keys when word processing</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To use Bluetooth keyboards and understand that they use a wireless connection</li><li>• To learn the basics of touch typing and the home row</li><li>• To use an online learning site and follow audio and written instructions</li><li>• To develop typing skills (finger positioning, speed, accuracy)</li><li>• To use a keyboard to type up sentences in Microsoft Word</li><li>• To format sentences to show a range of different font styles and effects</li></ul>
	<u>Unit 2: SeeSaw</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to use the 'drawing' interface to practice using the inbuilt annotation tools.</li><li>• How to use the 'notes' feature to develop typing skills by writing a short story.</li><li>• How to access the emoji keyboard to add illustrations.</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To use the 'drawing' program to design a new class logo</li><li>• To edit the style options of a text box</li><li>• To use the 'notes' feature to type up a short story</li></ul>



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<p><u>Unit 3: Presentations (and the internet)</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"><li>• How to create a basic Keynote presentation</li><li>• How to perform simple online searches</li><li>• That not all websites are reliable</li></ul>	<p><u>End point</u></p> <ul style="list-style-type: none"><li>• To create a sports presentation and apply custom animations to text and images</li><li>• To set a background colour to 'gradient' and adjust the direction</li><li>• To apply custom animation to objects</li><li>• To format images by applying special effects</li><li>• To use the internet to research a topic</li><li>• To copy and paste resources from the internet</li><li>• To know what 'transparent' images are and understand their benefits</li><li>• To use the search engine tools to filter transparent images</li></ul>
<p><b>Spring</b></p>	
<p><b>Computer Science</b></p>	<p><b>Vocab:</b></p> <p><b>Unit 1: Coding, algorithm, loop, IF statements, syntax</b></p> <p><b>Unit 2: Sequences, debugging, loops, repeat</b></p> <p><b>Unit 3: Wait commands, broadcast, sequence, parallel coding</b></p>
<p><u>Unit 1: Coding in Tynker</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"><li>• How to create simple algorithms in Scratch Jr using start / stop blocks and movement blocks</li><li>• How to select backgrounds and sprites in Scratch Jr</li><li>• How to complete coding tasks in Tynker Jr</li></ul>	<p><u>End point</u></p> <ul style="list-style-type: none"><li>• To be able to define an algorithm</li><li>• To understand the importance of syntax and accuracy in coding</li><li>• To understand the importance of detail in coding e.g. direction</li><li>• To learn different loop options</li><li>• To understand when and how IF statements are used</li><li>• To develop debugging skills by fixing incorrect code</li></ul>



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<u>Unit 2: Coding in Lightbot</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to complete a range of coding activities in Space Cadets.</li><li>• The different loop options and how to use IF statements</li><li>• How to develop debugging skills by fixing incorrect code</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To use logical reasoning to design coding sequences</li><li>• To use loops in coding</li><li>• To be able to define 'debugging'</li></ul>
<u>Unit 3: Coding in Scratch Jr</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to create simple algorithms in Scratch Jr using start/stop blocks and movement blocks</li><li>• How to select backgrounds and sprites in Scratch Jr</li><li>• How to complete coding tasks in Tynker Jr</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To use wait commands to alter the timings of an animation</li><li>• To use broadcasts within coding to trigger an action</li><li>• To create coded animations that use parallel block sequences</li></ul>
<b>Summer</b>	
<b>Digital Creativity</b>	<b>Vocab:</b> Unit 1: Import, sketch, transparent canvas, fill options (solid, linear, radial, pattern), opacity, RGB, palette, slider, undo, history, FX, blend mode Unit 2: Range, focus, angle, foreground, background, frame, stickers, animation, layout, template, contrast
<u>Unit 1: Digital art</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to use a range of pen options within digital art</li><li>• How to edit colours and pen size</li><li>• How to use an eraser</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To be able to undo last action and undo history</li><li>• Know how transparency is represented in digital art (checked pattern)</li><li>• To know what a canvas is and a range of canvas options</li><li>• To be able to import a background onto a blank canvas To edit clipart by adjusting colour FX (effects) and blend mode settings</li></ul>



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		<ul style="list-style-type: none"><li>To design and edit complex shapes using settings sliders and colour options (radial, linear, pattern, solid)</li></ul>
	<p><u>Unit 2: Photography using iPads</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"><li>How to use an iPad to capture images</li><li>Some basic image editing options to improve picture</li></ul>	<p><u>End point</u></p> <ul style="list-style-type: none"><li>To develop photography skills to capture a range of related images</li><li>To access design templates within a software package</li><li>To add stickers and text boxes to a collage</li><li>To edit textbox options, including style, size and colour</li><li>To understand the need for colour contrasts when layering objects</li><li>To save an online project to a device</li></ul>



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Y4	<b>Autumn</b>	
	<b>Digital Productivity</b>	<b>Vocab:</b> Unit 1: Home row, speed, touch type, accuracy, typo Unit 2: Network, PAN/LAN/WAN, ethernet, fibre-optic, satellite, bandwidth, byte, binary, data transfer, topologies, IP address, URL Unit 3: input, output, process, devices, components, presentation, multimedia
	Unit 1 – Typing skills <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• The general layout of a QWERTY keyboard</li><li>• How to position their fingers on the 'home row'</li><li>• How to use common function keys</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To be able to type more letters/words whilst looking at the monitor</li><li>• To increase typing speed</li><li>• To improve typing accuracy</li></ul>
	Unit 2 – Networks <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• What the internet is and how to access it</li><li>• That computers can view websites through the internet</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To know what a network is and that computers can communicate with other devices</li><li>• To know the difference between PANs, LANs and WANs</li><li>• To know that digital data is transmitted via ethernet cables, fibre optic cables and satellites</li><li>• To know some common network topologies (ring/bus/star/mesh)</li><li>• To understand that computers communicate using binary code</li><li>• To know various data sizes (byte, KB, MB, GB, TB)</li></ul>



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<p>Unit 3 – PC basics</p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"><li>• That there are a variety of computing devices and peripherals</li><li>• How to create a multi-media slideshow presentation</li></ul>	<p><u>End point</u></p> <ul style="list-style-type: none"><li>• To know the difference between input, process and output</li><li>• To identify common input and output devices e.g. mouse, keyboard, monitor, printer</li><li>• To understand the difference between hardware and software</li><li>• To know some of the components that are found inside a computer e.g. motherboard, sound card and graphics card</li><li>• To create a multimedia presentation using Keynote</li><li>• To effectively use background colour, fonts, tables, images, transition effects and animation effects</li><li>• To conduct effective and relevant image searches using tool options in Safari</li><li>• To copy online images into a presentation</li></ul>
<b>Spring</b>	
<p><b>Computer Science</b></p>	<p><b>Vocab:</b></p> <p><b>Unit 1: Coding, algorithm, sprite, stage, flip, loop, parallel coding, freehand draw</b></p> <p><b>Unit 2: Coding, debugging, rotate, stage coordinates, costumes, trigger, broadcast, wait, resize, switch, forever</b></p>
<p><u>Unit 1: Coding and Book Creator</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"><li>• The key features of Coding</li><li>• How to create a project using Scratch Jr</li></ul>	<p><u>End point</u></p> <ul style="list-style-type: none"><li>• To create and edit a range of sprites and backgrounds</li><li>• To use the paint editing tools in Scratch Jr to add shapes and freehand drawing</li><li>• To create a multi-scene animation using 'go to scene' end blocks</li></ul>



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		<ul style="list-style-type: none"><li>• To insert screenshots into a digital book</li><li>• To format a book effectively</li><li>• To edit document detail settings</li></ul>
<u>Unit 2: Further Coding in Scratch 3.0</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• New learning (online version)</li></ul>		<u>End point</u> <ul style="list-style-type: none"><li>• To have a good understanding of common terms used in coding</li><li>• To browse and select sprite costumes in an animation using 'switch costume' blocks</li><li>• To understand how to position a sprite using coordinates</li><li>• To be able to rotate and resize sprites</li><li>• To use forever loops in an algorithm</li></ul>
<b>Summer</b>		
<b>Digital Creativity</b>		<b>Vocab:</b> <b>Unit 1: Pair, tools, pen, sketch, crayon, highlighter, pixel, RGB, opacity, pen-to-text, freehand, typeface, shape recognition</b> <b>Unit 2: Operators, variables, score, ask and wait, if/else, show/hide</b>
<u>Unit 1: Apple Pencil</u> <u>Required prior knowledge:</u> Children should know: <ul style="list-style-type: none"><li>• New learning</li></ul>		<u>End point</u> <ul style="list-style-type: none"><li>• To pair an Apple Pencil to an iPad</li><li>• To access and use the drawing tools in Apple notes</li><li>• To know what pixels are</li><li>• To rotate an Apple pencil to adjust eraser size</li><li>• To know what opacity is and adjust opacity settings for a pen</li><li>• To use the pen-to-text tool to convert freehand to typeface</li><li>• To use shape recognition to create perfect shapes</li></ul>





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	<p><u>Unit 2: Quizzes (in Scratch 3.0 and kahoot)</u></p> <p><u>Required prior knowledge:</u></p> <p>Children should know:</p> <ul style="list-style-type: none"><li>• How to use sprites and backgrounds</li><li>• How to use movement and speech commands</li><li>• How to switch sprite costumes</li></ul>	<p><u>End point</u></p> <ul style="list-style-type: none"><li>• To design and create a quiz in Scratch 3.0</li><li>• To use conditionals within code</li><li>• To add a score variable to an algorithm</li><li>• To use operators within an algorithm</li><li>• To use operators and variables to calculate a score</li><li>• To create an interactive project that enables a user to enter data</li></ul>
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Y5	<b>Autumn</b>	
	<b>Digital Productivity</b>	<b>Vocab:</b> Unit 1: Touch typing, 'home row', accuracy, speed, alternate keys, characters Unit 2: Cyberbullying, likes/dislikes, positive and negative impact, scroll addiction, text box, table, cell-formatting, header, footer Unit 3: Timings, multiple-choice, true/false, settings, embed video, trim
	<u>Unit 1 – Typing skills</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• The general layout of a QWERTY keyboard</li><li>• How to position their fingers on the 'home row'</li><li>• How to use common function keys</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To be able to type more letters/words whilst looking at the monitor</li><li>• To increase typing speed</li><li>• To improve typing accuracy</li></ul>
	<u>Unit 2 – Digital wellbeing</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• That online habits affect people in different ways</li><li>• How to identify strategies for developing healthy online habits</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To understand the positive and negative impact of technology on health, relationships, work and the environment.</li><li>• To create an information sheet on Digital Wellbeing using text boxes, word art, tables, images, headers and footers</li><li>• To format a document using a range of styles and techniques to make it more presentable</li><li>• To add a header and footer to a document</li></ul>
	<u>Unit 3 – Digital quizzes (Kahoot)</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to play quizzes in Kahoot!</li><li>• How to browse online videos and images</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To create a digital quiz using both multiple choice and true/false question options</li><li>• To search for and insert relevant online images and videos to illustrate questions</li><li>• To set appropriate timings for a quiz</li></ul>



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		<ul style="list-style-type: none"><li>To test the quiz on peers and understand the importance of audience feedback</li><li>To trim videos from YouTube</li></ul>
<b>Spring</b>		
<b>Computer Science</b>		<b>Vocab:</b> <b>Unit 1: Algorithm, sequence, functions, decomposition, iteration, abstraction</b> <b>Unit 2: 'Go to' coordinates, sensor touching colour, conditional statements, forever loop, stop all, variables</b>
<u>Unit 1: Coding in Tynker</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to create algorithms</li><li>How to debug code</li><li>How to sort code into a sequence</li></ul>		<u>End point</u> <ul style="list-style-type: none"><li>To use computational thinking when creating algorithms</li><li>To use decomposition and abstraction to improve coding</li><li>To create functions for an algorithm</li></ul>
<u>Unit 2: Advanced Coding</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to use sprites and backgrounds effectively</li><li>How to use if statements</li><li>How to use continual loops</li></ul>		<u>End point</u> <ul style="list-style-type: none"><li>To create an interactive pong game in Scratch 3.0</li><li>To use sensors within a game</li><li>To use IF statements within a game to allow for multiple outcomes</li><li>To use 'wait until' commands to provide a condition to an algorithm</li><li>To use audio commands within an algorithm</li><li>To control multiple sprites within an animation</li></ul>



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<b>Summer</b>		
<b>Digital Creativity</b>		<b>Vocab:</b> Unit 1: Pair, sketch, pen, select, erase, design, fill, canvas, blend, layer, pipette Unit 2: Frame, speed, play back, onion layers, convert, MP4, duplicate
<u>Unit 1: Digital art using Apple pencils</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to pair an Apple pencil to an iPad</li><li>How to use the touch sensitive tip effectively</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To use additional pen options such as calligraphy, fur, sketchy and stamp.</li><li>To drag and drop colours on to a canvas using an Apple pencil</li><li>To use the blend feature to manipulate a drawing</li><li>To understand the various colour palette options in Procreate and their individual benefits</li><li>To know what a pipette is and how to use it</li><li>To add layers to a piece of artwork</li></ul>	
<u>Unit 2: Animation</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>New learning (animation)</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>To create a simple animation using several frames (photo stills) in Stop Motion</li><li>To create simple animations using animation assist in Procreate</li><li>To adjust the speed of an animation</li><li>To know what an onion layer is</li><li>To adjust the number of visible onion layers when designing an animation</li><li>To duplicate a layer and understand the benefits of this feature</li><li>To convert an animation into an MP4 video</li></ul>	



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Y6	<b>Autumn</b>	
	<b>Digital Productivity</b>	<b>Vocab:</b> Unit 1: Touch typing, 'home row', accuracy, speed, alternate keys, characters Unit 2: Digital footprint, hyperlinks, transition, animation, social media, cyberbullying, block, report, privacy settings, scroll addiction, grooming, subscriptions, SPAM, catfishing, notifications, locator services, disable, enable
	<u>Unit 1 – Typing skills</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• The general layout of a QWERTY keyboard</li><li>• How to position their fingers on the 'home row'</li><li>• How to use common function keys</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To be able to type more letters/words whilst looking at the monitor</li><li>• To increase typing speed</li><li>• To improve typing accuracy</li></ul>
	<u>Unit 2 – Presentations and online safety</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• That online platforms present risks</li><li>• That people can be bullied online</li><li>• How to create a multimedia presentation with text, images, tables and transitions</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To understand what a digital footprint is</li><li>• To identify a range of social media applications, including WhatsApp, SnapChat, YouTube and Instagram</li><li>• To identify some potential risks when using social media, such as cyberbullying, unwanted subscriptions, grooming and catfishing privacy settings</li><li>• To know what targeted marketing is</li><li>• To know what notifications are and the advantages/disadvantages of enabling/disabling them</li></ul>



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		<ul style="list-style-type: none"><li>To know there are laws regarding social media, including age restrictions age</li><li>To customise animation setting in a presentation (automatic/click/with/after/ timer)</li><li>To create text and image hyperlinks to navigate a presentation</li></ul>
<b>Spring</b>		
<b>Computer Science</b>		<b>Vocab:</b> <b>Unit 1: Algorithm, sequence, functions, decomposition, iteration, nested loops</b> <b>Unit 2: Logical reasoning, computational thinking, screenshots, caption</b>
<u>Unit 1 - Coding in swift</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to create complex algorithms using functions and loops</li><li>How to test and debug their code</li></ul>		<u>End point</u> <ul style="list-style-type: none"><li>To use a touchscreen to navigate an online world</li><li>To understand the benefits of eliminating unnecessary code</li><li>To create complex functions to complete multiple tasks</li><li>To use nested loops in an algorithm</li><li>To use IF statements in an algorithm</li></ul>
<u>Unit 2 – Coding in SpriteBox</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>How to create complex algorithms using functions and loops</li><li>How to test and debug their code</li><li>How to create a book in Book Creator using backgrounds, text and images</li></ul>		<u>End point:</u> <ul style="list-style-type: none"><li>To complete several coding challenges in SpriteBox using computational thinking and logical reasoning</li><li>To design an avatar</li><li>To design and create a user guide in Book Creator</li><li>To add and delete pages in an e-Book</li><li>To use titles and captions to add text to a page</li></ul>



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<b>Summer</b>		
	<b>Digital Creativity</b>	<b>Vocab:</b> <b>Unit 1: Digital art, blur, noise, liquify</b> <b>Unit 2: Trailer, edit, screen record, storyboard, trim, clip, drop down menu, close-up, wide, action, landscape</b> <b>Unit 3: Pair, connect, flash, reset, LED</b>
	<u>Unit 1: Procreate (advanced)</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to use the touch sensitive tip effectively</li><li>• How to use various pen tools</li><li>• How to use the blend feature and colour palette</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To develop digital art skills by creating more complex designs in procreate.</li><li>• To use a range of adjustment options to blur, add noise and liquify a drawing</li></ul>
	<u>Unit 2: Making iMovies</u> <u>Required prior knowledge</u> Children should know: <ul style="list-style-type: none"><li>• How to capture video using an iPad</li></ul>	<u>End point</u> <ul style="list-style-type: none"><li>• To create a movie trailer in iMovie using the video camera and online screen record</li><li>• To enable screen record within the control centre of an iPad</li><li>• To mute/unmute the microphone when using screen record</li><li>• To use the screen record feature to copy clips from online videos</li><li>• To use trim to remove unwanted video at the start/end of a clip</li><li>• To edit the 'outline' text for a trailer and use drop down menus to access further options</li><li>• To insert video files from a device into a storyboard</li><li>• To know a range of clip options (close-up, landscape, wide, action)</li></ul>



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	<p><u>Unit 3: Programming Micro:Bits</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"><li>• New learning</li></ul>	<p><u>End point</u></p> <ul style="list-style-type: none"><li>• To pair a Micro:Bit to an iPad</li><li>• To connect the essential components of a Micro:Bit</li><li>• To program a Micro:Bit using various triggers and commands</li><li>• To flash messages to a Micro:Bit</li><li>• To control LED lights and operate a traffic light model through code commands</li></ul>
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