



Dovedale Primary School

Long term plan

Computing



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



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



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Y1	Autumn	
	<p>Digital Creativity</p>	<p>Vocab: Unit 1: Swipe, unlock/lock, app, screenshot, 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</p>
	<p><u>Unit 1: iPad basics and digital art</u> Children should know:</p> <ul style="list-style-type: none"> Some basic iPad handling from EYFS 	<p><u>End point</u></p> <ul style="list-style-type: none"> 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) To be able to access formatting tool options and navigate them using tabs To insert and format shapes in Pages to create pictures To use the touch screen to resize and rotate a shape To format images in Word and apply special effects To use the Doodle Buddy app to create patterns using various pen and colour options
<p><u>Unit 2: Presentations – introduction to Keynote</u> <u>Required prior knowledge</u> Children should know: New learning</p>	<p><u>End point</u></p> <ul style="list-style-type: none"> To create a simple slideshow To add a new slide to a presentation To run and exit a show To select layout options for a slide 	



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		<ul style="list-style-type: none"> To add and format text in a presentation To format a background in a presentation To add images to a presentation
<p><u>Unit 3: iPad cameras</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"> How to use the camera feature How to take photographs 		<p><u>End point</u></p> <ul style="list-style-type: none"> To use the camera on an iPad to capture photos To use 'pano' on a camera To use 'slo-mo' on a camera To use 'camera flip' to reverse a camera and simple editing options. To know and practice some photography techniques (angle, range, steady hand, focus) To capture photos in portrait and landscape view To apply filters to an image
<p>Spring</p>		
<p>Computer Science</p>		<p>Vocab:</p> <p>Unit 1: Code, command, algorithm, sequence, start, stop, move, grow, shrink, repeat</p> <p>Unit 2: Trigger, stop blocks, loops, movement, sprite, stage, move, upload, screenshot</p>
<p><u>Unit 1: Coding</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"> New learning 		<p><u>End point</u></p> <ul style="list-style-type: none"> To understand some basic coding commands (e.g. move, grow, shrink, repeat) using Daisy the Dino and Tynker Jr To know that a command is an instruction To know that computers follow (run) commands To be able to put code into a logical sequence To know that code can contain errors



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<p><u>Unit 2: Coding</u> <u>Required prior knowledge</u> Children should know:</p> <ul style="list-style-type: none"> • What an algorithm is • How start and stop blocks are used in a sequence • Some basic coding commands 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To use Scratch Jr to create simple algorithms using trigger/stop blocks, loops and movement • To know what the stage is • To search and select backgrounds and sprites in a library and add them to the stage • To be able to remove unwanted code • To use logical reasoning to work out a task • To create simple algorithms in a sequence
<p>Summer</p>	
<p>Digital Productivity</p>	<p>Vocab: Unit 1: Online safety, report, cyberbullying 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</p>
<p><u>Unit 1: Online Safety</u> <u>Required prior knowledge</u> Children should know:</p> <ul style="list-style-type: none"> • New learning 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To understand the importance of staying safe when using technology • To know the SMART principles: (Stay safe, Don't Mee<u>t</u> up, Accepting files, Reliable, Tell someone) • To focus on Meeting, Accepting and Telling
<p><u>Unit 2: Word processing</u> <u>Required prior knowledge</u> Children should know:</p> <ul style="list-style-type: none"> • Basic iPad handling 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To understand what the 'home row' is and be able to position their fingers correctly on a keyboard • To learn some Word Processing basics (font, formatting, and text alignment)



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		<ul style="list-style-type: none">• To learn how to use the return and delete keys• To be able to 'show' and 'hide' the keyboard on an iPad• To be able to type some words in a document• To learn how to scan a QR code and upload a photo to an online platform• To be able to rename a Pages document
	<p><u>Unit 3: Internet skills</u> <u>Required prior knowledge</u> Children should know:</p> <ul style="list-style-type: none">• New learning	<p><u>End point</u></p> <ul style="list-style-type: none">• To know what a web browser is• To know what a search engine is• To use a search engine to perform a key word search• To understand search results (category tabs, ranking filters)• To recognise sponsored ads• To find information and images online



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



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<ul style="list-style-type: none"> • How to resize and rotate objects 	<ul style="list-style-type: none"> • To know and use alignment options
<h2 style="text-align: center; margin: 0;">Spring</h2>	
<h3 style="margin: 0;">Computer Science</h3>	
<p>Vocab:</p> <p>Unit 1: Coding, algorithm, sprite, stage, background, grid, shrink, grow, flip, speech, speed, trigger</p> <p>Unit 2: Coding, command, run, debug, format, slideshow, screenshot, import, transition</p>	
<p><u>Unit 1: Coding</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"> • How to create simple algorithms in Scratch Jr using start / stop blocks and movement blocks • How to select backgrounds and sprites in Scratch Jr 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To know that an algorithm is a set of step-by-step instructions • To use Scratch Jr to create an animation • To learn new commands to resize, flip, add speech, and change the speed of movement • To add additional scenes to an animation • To enable and disable stage gridlines to calculate distance • To set the start trigger to 'on tap'
<p><u>Unit 2: Presentations and Coding</u></p> <p><u>Required prior knowledge</u></p> <p>Children should know:</p> <ul style="list-style-type: none"> • How to create algorithms using a variety of commands in a logical sequence • How to create a simple slideshow with text and images 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To add screenshots of code (from Coding Safari) to a presentation and annotate them using text boxes • To format a presentation with effective fonts and use of colour. • To apply transition effects to a slideshow



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



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



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<p><u>Unit 3: Presentations (and the internet)</u> <u>Required prior knowledge</u> Children should know:</p> <ul style="list-style-type: none"> • How to create a basic Keynote presentation • How to perform simple online searches • That not all websites are reliable 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To create a sports presentation and apply custom animations to text and images • To set a background colour to 'gradient' and adjust the direction • To apply custom animation to objects • To format images by applying special effects • To use the internet to research a topic • To copy and paste resources from the internet • To know what 'transparent' images are and understand their benefits • To use the search engine tools to filter transparent images
<h2>Spring</h2>	
<h2>Computer Science</h2>	<p>Vocab: Unit 1: Coding, algorithm, loop, IF statements, syntax Unit 2: Sequences, debugging, loops, repeat Unit 3: Wait commands, broadcast, sequence, parallel coding</p>
<p><u>Unit 1: Coding in Tynker</u> <u>Required prior knowledge</u> Children should know:</p> <ul style="list-style-type: none"> • How to create simple algorithms in Scratch Jr using start / stop blocks and movement blocks • How to select backgrounds and sprites in Scratch Jr • How to complete coding tasks in Tynker Jr 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To be able to define an algorithm • To understand the importance of syntax and accuracy in coding • To understand the importance of detail in coding e.g. direction • To learn different loop options • To understand when and how IF statements are used • To develop debugging skills by fixing incorrect code



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



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		<ul style="list-style-type: none">To design and edit complex shapes using settings sliders and colour options (radial, linear, pattern, solid)
	<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">How to use an iPad to capture imagesSome basic image editing options to improve picture	<p><u>End point</u></p> <ul style="list-style-type: none">To develop photography skills to capture a range of related imagesTo access design templates within a software packageTo add stickers and text boxes to a collageTo edit textbox options, including style, size and colourTo understand the need for colour contrasts when layering objectsTo save an online project to a device



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



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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"> • That there are a variety of computing devices and peripherals • How to create a multi-media slideshow presentation 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To know the difference between input, process and output • To identify common input and output devices e.g. mouse, keyboard, monitor, printer • To understand the difference between hardware and software • To know some of the components that are found inside a computer e.g. motherboard, sound card and graphics card • To create a multimedia presentation using Keynote • To effectively use background colour, fonts, tables, images, transition effects and animation effects • To conduct effective and relevant image searches using tool options in Safari • To copy online images into a presentation
<h2>Spring</h2>	
<h3>Computer Science</h3>	<p>Vocab:</p> <p>Unit 1: Coding, algorithm, sprite, stage, flip, loop, parallel coding, freehand draw</p> <p>Unit 2: Coding, debugging, rotate, stage coordinates, costumes, trigger, broadcast, wait, resize, switch, forever</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"> • The key features of Coding • How to create a project using Scratch Jr 	<p><u>End point</u></p> <ul style="list-style-type: none"> • To create and edit a range of sprites and backgrounds • To use the paint editing tools in Scratch Jr to add shapes and freehand drawing • To create a multi-scene animation using ‘go to scene’ end blocks



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



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Unit 2: Quizzes (in Scratch 3.0 and kahoot)

Required prior knowledge:

Children should know:

- How to use sprites and backgrounds
- How to use movement and speech commands
- How to switch sprite costumes

End point

- To design and create a quiz in Scratch 3.0
- To use conditionals within code
- To add a score variable to an algorithm
- To use operators within an algorithm
- To use operators and variables to calculate a score
- To create an interactive project that enables a user to enter data



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



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



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



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



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



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



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