



Half Acres

AREA OF STUDY WITHIN COMPUTING

Based on 'Twinkl PlanIt' scheme of Work



Year 1	Computer Skills	Painting	Word Processing Skills	Programming Toys	Programming with Scratch JR
	<ul style="list-style-type: none"> • Use a computer mouse or trackpad. • Switch on and shutdown a computer. • Launch an application and manipulate windows. • Save a file • Drag objects • Identify and practise computer skills. 	<ul style="list-style-type: none"> • Paint with different colours. • Paint with different brushes. • Create shapes and fill areas. • Make changes to improve my work. • Add text to a painting. • Use a computer program to make a poster. 	<ul style="list-style-type: none"> • Type on a keyboard. • Type symbols and save files. • Edit text • Use a keyboard • Select and format text. • Format the font 	<ul style="list-style-type: none"> • Create instructions using pictures. • Say why it is important to be precise when writing an algorithm. • Write instructions to program a person like a computer • Program a Bee-Bot to move. • Debug a Bee-Bot. • Program a sequence to make a Bee-Bot move. 	<ul style="list-style-type: none"> • Describe and use instructions to program a character • Program a character to grow and shrink. • Use instructions to make characters move at different speeds and distance. • Use a repeat instruction to make a sequence of instructions run more than once. • Create programs that play a recorded sound. • Create programs with a sequence of linked instructions.
Year 2	Internet Research skills	Computer Art	Presentation skills	Preparing for Turtle Logo	Programming with Turtle Logo and Scratch
	<ul style="list-style-type: none"> • Search the Internet using one word. • Stay safe when using the Internet. • Search the Internet to find results suitable for children • Search for information safely online. • Follow links to another web page • Follow links safely online. • Create content for an online blog • Use a camera to take safe photos to use online • Create content for an online blog • Use an online blog safely and respectfully. • Post positive comments and responses on a blog. 	<ul style="list-style-type: none"> • Create computer art. • Use a range of tools in a computer program to reproduce a style of art. • Make and edit shapes to create a piece of art. • Change the shade of a colour for effect. • Retrieve a file to edit in a computer program. Use a range of skills to create a piece of art. 	<ul style="list-style-type: none"> • Use basic computer skills. • Use folders • Organise ideas for a presentation. • Create a simple presentation with text. • Add and format an image. • Reorder slides and present a presentation. • Search and print. 	<ul style="list-style-type: none"> • Give and follow an algorithm to turn right or left. • Give and follow an algorithm to make half and quarter turns. • Give and follow an algorithm using the commands right 90 and left 90. • Give, follow and complete an algorithm. • Use recognised language in an algorithm. • Create, test and debug an algorithm 	<ul style="list-style-type: none"> • Create an algorithm to move or rotate the turtle • Create an algorithm and use the repeat command. • Create an algorithm and add sound. • Create an algorithm and use the repeat and say command. • Create an algorithm and use the green flag to start. • Create an algorithm and use the commands to change the backdrop and add sprites.

Year 3	Internet Research and Communication	Drawing and Desktop Publishing	Presentation Skills	Word Processing	Programming with Turtle Logo and Scratch
	<ul style="list-style-type: none"> • Identify how word order affects search results. • Explain how searches return results. • Save and share webpages. • Identify the ways, and investigate how, we communicate online. • Explain how to stay safe when communicating online. • Explain why I need to be responsible online. 	<ul style="list-style-type: none"> • Draw with different shapes and lines • Order and group objects • Manipulate shapes and lines • Recognise effective layout. • Combine text and images • Lay out objects effectively. 	<ul style="list-style-type: none"> • Plan a branching story. • Create slide templates and organise slides with hyperlinks • Add theme, transitions and animation to a presentation. • Use action settings. • Insert audio and video • Evaluate slide layout and make improvements. 	<ul style="list-style-type: none"> • Use basic computer skills. • Change the case of text. • Align text. • Use bullets and numbering. • Use the <ctrl> key. • Insert and format text boxes. 	<ul style="list-style-type: none"> • Create and debug an algorithm using the move, rotate and repeat commands. • Create and debug algorithms using penup and pendown. • Create and debug algorithms that draw regular polygons. • Create and debug algorithms that draw shapes. • Create and debug algorithms that draw regular polygons. • Create and debug algorithms to draw patterns.
Year 4	Word Processing		Animation	Programming Turtle Logo	Scratch: Questions and Quizzes
	<ul style="list-style-type: none"> • Format images for a purpose. • Use formatting tools to create an effective layout. • Use the spellcheck tool. • Insert and format a table in a word processing document. • Change a page layout for a purpose. • create hyperlinks within a word document. 		<ul style="list-style-type: none"> • Describe early forms of animation before computers and how computers have made a difference. • Create a short computer animation using one or more moving stick figures. • Create a recorded animation involving a number of moving characters on a background. • Structure specific timing of animations using a time slider. • Use a camera to create a short stop-motion animation film. • Analyse and evaluate software. 	<ul style="list-style-type: none"> • Create and debug an algorithm to create a procedure. • Create and debug an algorithm that uses setpos to draw shapes. • Create and debug an algorithm with different colours. • Create and debug an algorithm to fill areas with colour. • Create and debug an algorithm to produce text. • Create and debug an algorithm to draw arcs. 	<ul style="list-style-type: none"> • Can compare quizzes and decompose a problem into smaller parts • Can write and debug a program. • Use sequence and selection. • Write and debug a program which uses sequence and repetition. • Work with variables. • Write and debug a program which uses sequence • Write a program. • Design, write and debug my own program by selecting appropriate visual block commands to create a sequence.

Year 5	Flowol	Radio Station	Internet Research and Webpage Design	3D Modelling: SketchUp	Scratch 3.0: Developing Games
	<ul style="list-style-type: none"> • Draw and interpret a flowchart with the correct symbols. • Create and edit a flowchart to control a simulated device. • Control multiple outputs at the same time. • Use a decision symbol based on the status of an input. • Create a flowchart program containing a subroutine. • Design, write and debug my own flowchart program for a given task. 	<ul style="list-style-type: none"> • Use software to create my own sounds by recording, editing and playing • Combine audio effects to create an original radio jingle. • Research and plan digital content for a radio podcast. • Use software to create and present digital content for a radio podcast. • Design and record a persuasive radio advert for a product or service. • Present and evaluate audio content 	<ul style="list-style-type: none"> • Evaluate webpages. • Create a webpage layout. • Add text to a webpage. • Add images to a webpage. • Add hyperlinks into a webpage. • Publish and share my webpage. 	<ul style="list-style-type: none"> • Draw 3D shapes. • Add detail to 3D drawings. • Add and manipulate 3D models. • Create a complex 3D model • Create a complex 3D model for my own design 	<ul style="list-style-type: none"> • Design and program a character game. • Design an original character or backdrop for a game. • Add features or effects to enhance a game. • Create an original animated game with a specific goal. • Program costume changes for a sprite. • Add point-scoring and levels to game code.
Year 6	Spreadsheets	Film Making	Scratch: Animated Stories	Kodu Programming	
	<ul style="list-style-type: none"> • Enter data and formulae into a spreadsheet. • Order and present data based on calculations. • Add, edit and calculate data. • Use a spreadsheet to solve problems. • Plan and calculate a spending budget. • Design a spreadsheet for a specific purpose. 	<ul style="list-style-type: none"> • Use appropriate software and other tools effectively to write a film script. • Locate and check appropriate digital content, and provide accurate crediting of sources. • Use digital recording devices to film and import into video editing software. • Plan, conduct and import video interviews as part of a short film. • Use video editing software to create a short film. • Use video editing software to turn a film project into a finished movie and present it. 	<ul style="list-style-type: none"> • Create appropriate animations for a story scene. • Structure and control the timing of events. • Control when objects need to be visible. • Sequence events to create a story narrative. • Add voice sounds to enhance an animated story. • Add interactive user features to a scene or story 	<ul style="list-style-type: none"> • Investigate and evaluate the features of programming software. • Program Kodu using 'When' and 'Do' instructions. • Use tools and add features to create an original landscape in Kodu. • Analyse and deconstruct code to work out its purpose. • Program a character to be controlled around a custom track to reach a goal. • Program a character to follow an automatic path. 	

Digital Literacy including Online Safety

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>I can identify what technology is in the classroom.</p>	<p>I can identify when a password is needed and why.</p> <p>I know the importance of keeping passwords private.</p> <p>I can identify and explain, the uses of technology, in and around, my classroom (including Twitter etc.)</p> <p>I can discuss what technology is in my home and what is used for.</p> <p>I can explain that information can be retrieved from computers.</p>	<p>I can explain what 'Online Safety' means.</p> <p>I can explain how to communicate safely online.</p> <p>I can explain who to tell if I feel unsafe online.</p> <p>I can recall the 'SMART' rules for online safety.</p> <p>I can understand what personal information should be kept safe online.</p> <p>I can give advice to others about keeping safe online.</p>	<p>I can explain what a 'digital footprint' is.</p> <p>I can understand that people can use the information I put online.</p> <p>I can begin to identify possible dangers online.</p> <p>I can identify websites suitable/unsuitable for my age.</p> <p>I can explain when I should ask an adult for their advice.</p> <p>I can begin to explain who a website is aimed at.</p> <p>I can identify unkind online behaviour.</p>	<p>I can explain 'Cyberbullying'</p> <p>I can explain where cyberbullying can take place.</p> <p>I can identify adverts online.</p> <p>I can explain how companies use websites for their products.</p> <p>I can create a strong password.</p> <p>I can explain why a strong password is important.</p> <p>I can explain what privacy settings are.</p> <p>I can identify online communities I am part of.</p> <p>I can discuss the positive and negative aspects of online communities.</p>	<p>I can confidently define, and recognise, cyberbullying.</p> <p>I can explain the appropriate response to hurtful messages/comments online.</p> <p>I can access, and use, a trusted search engine.</p> <p>I can explain what 'plagiarism' is.</p> <p>I can explain what 'digital citizenship' is.</p> <p>I can explain how to be a good digital citizen.</p> <p>I can identify comments that may be hurtful to others.</p> <p>I can reflect on my own messages to ensure they are kind.</p>	<p>I can explain what 'phishing' is and can recognise the signs.</p> <p>I can identify a 'spam' email.</p> <p>I can explain what to do with spam email.</p> <p>I can explain the steps to take to avoid spam emails.</p> <p>I can create a strong password using a set of given rules.</p> <p>I can understand that not everything I see online is true.</p> <p>I can identify unsafe online behaviour.</p>	<p>I can understand that not all websites are 'secure'.</p> <p>I can identify warning signs that suggest an unsecure website.</p> <p>I can confidently explain what to do if I am asked or told something online which makes me uncomfortable.</p> <p>I can identify a situation that I may find myself in where I need to remain vigilant.</p> <p>I can explain how cyberbullying can be as harmful as in-person bullying.</p>
<p>Safe Stranger</p>	<p>Password Private Camera Photograph</p>	<p>'Communicate safely' Unsafe Online 'SMART' rules' Personal information Top tip/advice Search Internet</p>	<p>Digital footprint, Keywords, In/Appropriate Website/webpage 'Rate and review' 'Kind/unkind behaviour' Results, 'Possible danger' Information, Links 'online content' Blog, Search engine, Navigate, Permission</p>	<p>Word order Communicate Bookmark Favourite Technology Cyberbullying Advertisements Promote Privacy Online Communities Targeted Devices</p>	<p>URL Plagiarism 'Online profile' Digital citizen(ship) Trusted/reliable</p>	<p>Phishing SPAM Virus Trojan</p>	<p>Crediting/Citation Cross-check Warning signs Privacy Policy</p>

Information Technology (Basic Computer Skills)

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>I can turn on digital equipment.</p> <p>I can handle technology with care.</p> <p>I can interact with technology.</p>	<p>I can turn on/off digital equipment.</p> <p>I can interact with technology purposefully (navigating an iPad).</p> <p>I can use technology to take a picture.</p> <p>I can use technology to record a video.</p>	<p>I can use one finger to input text.</p> <p>I can log on the laptop using my own username.</p> <p>I can use a mousepad to navigate around the screen.</p> <p>I can minimise and close windows on the desktop.</p> <p>I can copy and paste pictures from the internet.</p> <p>I can use the CAPS LOCK to insert capital letters.</p> <p>I can use the backspace button.</p>	<p>I can use two fingers to input text at the speed of 10 words per minute.</p> <p>I can resize windows on the desktop.</p> <p>I can log off a computer.</p> <p>I can use the shift key to access the exclamation mark and question mark.</p> <p>I can save my work into the correct location.</p> <p>I can use the 'undo' and 'redo' tools.</p>	<p>I can work with two windows open on the desktop.</p> <p>I can use the shift key to access different symbols including capital letters.</p> <p>I can retrieve my own work from the server.</p>	<p>I can use the 'Snipping Tool' to take screenshots</p> <p>I can type words at a speed of 15 words per minute.</p>	<p>I can use CTRL to support shortcuts (CTRL+C, CTRL+V, CTRL+A)</p>	<p>I can type words at a speed of 20 words per minute.</p>
<p>Computer Laptop iPad/tablet On Off Click Button SMART/ Whiteboard</p>	<p>Application Mouse Keyboard Screen Double click Button Select</p>	<p>Shutdown Launch Windows Save File Open Drag Objects Cursor Components (mouse, trackpad, screen, monitor) Folder Log on/off Shutdown Computer program Undo/redo Edit Insert Print Image</p>	<p>Computer art Tools Retrieve Software Rotate Resize Duplicate Arrange Manipulate Upload Print Preview</p>	<p>Database Screenshots Menu Shortcuts Audio Video Hyperlinks Combine</p>	<p>Movie Maker Opening title Duration Credits Project Crop Snipping Tool 'Pan and zoom'</p>	<p>Inference points Measure tool SketchUp Push/pull Offset Interpret Digital content Podcast Audio content Broadcast Download Import/Export</p>	<p>Convert .mp3/.mp4</p>

Information Technology (Word Processing)

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
-	-	I can combine pictures and text (with hep where appropriate)	<p>I can change the font within Microsoft Word.</p> <p>I can alter the font size and colour within Microsoft Word.</p> <p>I can use bold, underline and italic on Microsoft Word.</p> <p>I can insert, and write within, a text box (Microsoft Publisher)</p> <p>I can move, resize and rotate text boxes (Word/Publisher)</p>	<p>I can use bullet points to create a list.</p> <p>I can use numbers to create a list.</p> <p>I can align text to the left, right and centre on Microsoft Word.</p> <p>I can use WordArt to create titles and subheadings (Word/Publisher)</p> <p>I can insert and format shapes (Word/Publisher)</p>	I can layer objects for a purpose.	I can insert a table (Word/Publisher)	I can format a table
-	Text Type	Font Edit Symbol Backspace Delete Space/space bar Capital letter/CAPSLOCK Bold Italics Underline Insert Document	Shift Presentation Add/format Reorder Slide Microsoft PowerPoint Layout Source Text box Border Outline	Uppercase/lowercase Align Bullets Numbering Justified Secure Slide templates Theme Design Branching Transitions Animations	Spellcheck Table Word processing Orientation Columns/rows Cells Desktop publisher/Microsoft Publisher Enhance Layer Soundtrack Caption	<i>Children will explore and embed previous vocabulary through their webpage design</i>	Microsoft Excel Spreadsheet Formula Function Data Calculations Budget?? Cell reference Graph Running total

Computer Science

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<p>I can complete a simple programming sequence using a range of technology (BeeBots, programming games online).</p>	<p><i>Children to continue using BeeBots to develop understanding of coding and programming moving onto using ScratchJNR as an iPad/laptop based program.</i></p> <p>I can explain what an 'algorithm' is.</p> <p>I can say why it is important to be precise when writing an algorithm.</p> <p>I can write instructions to program a person like a computer</p> <p>I can program a Bee-Bot to move.</p> <p>I can debug a Bee-Bot's sequence.</p> <p>I can describe and use instructions to program a character. (ScratchJNR)</p> <p>I can program a character to grow and shrink. (ScratchJNR)</p> <p>I can use instructions to make characters move at different speeds and distance. (ScratchJNR)</p> <p>I can use a repeat instruction to make a sequence of instructions run more than once. (ScratchJNR)</p>	<p><i>Children to apply growing programming skills into 'Turtle Logo' program.</i></p> <p>I can apply my understanding of algorithms within a different program</p> <p>I can give, follow and complete an algorithm.</p> <p>I can give and follow an algorithm to turn right or left.</p> <p>I can give and follow an algorithm to make half and quarter turns.</p> <p>I can give and follow an algorithm using the commands right 90 and left 90.</p> <p>I can use recognised language in an algorithm.</p> <p>I can create, test and debug an algorithm</p> <p>I can create an algorithm to move or rotate the turtle.</p> <p><i>Children to apply growing programming skills by being introduced to Scratch.</i></p>	<p>Create an algorithm and use the repeat command.</p> <p>Create an algorithm and add sound.</p> <p>Create an algorithm and use the repeat and say command.</p> <p>Create an algorithm and use the green flag to start.</p> <p>Create an algorithm and use the commands to change the backdrop and add sprites.</p>	<p>I can decompose programs into smaller parts.</p> <p>I can use logical reasoning to detect and correct errors in algorithms and programs.</p>	<p>I can design, input and test an increasingly complex set of instructions to a program or device.</p> <p>I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems.</p> <p>I can test simple programs that use sequencing and repetition.</p> <p>I can use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency.</p>	<p>I can solve problems by decomposing them into smaller parts.</p> <p>I can create programs using variables.</p> <p>I can use sequences, selection and repetition to explore real world problems.</p> <p>I can use logical reasoning to explain how increasingly complex algorithms work.</p> <p>I can detect and correct errors in algorithms and programs efficiently.</p>

		<p>I can create programs that play a recorded sound. (ScratchJNR)</p> <p>I can create programs with a sequence of linked instructions. (ScratchJNR)</p>					
-	<p>Instructions</p> <p>BeeBot</p> <p>Arrow</p> <p>Turn</p> <p>Error</p>	<p>Precise</p> <p>Algorithm</p> <p>Program (verb)</p> <p>Debug</p> <p>Sequence/linked instructions/ Continuous loop</p> <p>Step-by-step</p> <p>Direct (verb)</p> <p>Direction</p> <p>Evaluate</p> <p>Programming</p> <p>Character</p> <p>Grow/shrink</p> <p>Speed/distance</p> <p>Repeat/repeat instruction</p> <p>Predict behaviour</p> <p>Recorded sound</p> <p>Navigate</p> <p>Sprite</p> <p>Position</p> <p>Background</p> <p>Blocks</p> <p>Add/remove</p> <p>Edit</p> <p>Value</p> <p>'repeat forever'</p> <p>Section</p> <p>Effect</p>	<p>'Execute an action'</p> <p>Complex instructions</p> <p>Half turn</p> <p>Quarter turn</p> <p>Commands</p> <p>'Recognised language'</p> <p>Test</p> <p>'Accurate instructions'</p> <p>Abbreviation</p> <p>Rotate</p> <p>Variable</p> <p>Backdrop</p> <p>Project</p> <p><i>"Year 2 to ensure that all introductory vocabulary from Year 1 has been embedded"</i></p>	<p>Polygons</p> <p>Patterns</p> <p>Variable</p> <p>Script/Script Area</p> <p><i>"Year 3 to ensure that all vocabulary from Year 2 has been embedded"</i></p>	<p>Animation</p> <p>Timing/Time slider</p> <p>Stop-motion</p> <p>Frames/linked frames</p> <p>Webcam</p> <p>Digital device</p> <p>Interaction</p> <p>Procedure</p> <p>Setpo</p> <p>Decompose</p> <p>Repetition</p> <p>Scoring system</p> <p>Numerical</p>	<p>Input/output</p> <p>Flowchart</p> <p>Decision symbol</p> <p>Status</p> <p>Subroutine</p> <p>Conventional sequence</p> <p>Modify</p> <p>Costume</p> <p>'Game code'</p> <p>Consequence</p> <p>Coding language</p> <p>Logical</p>	<p>'Interactive User Feature'</p> <p>Succession</p> <p>'When' and 'Do' instructions</p> <p>Automatic path</p> <p>Virtual environment</p> <p>Playability</p>