

# Fairstead Community Primary and Nursery School Computing Curriculum Map 2024-25



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>EYFS</b>	<p><b>Knowledge and Understanding of the World- Technology</b></p> <ul style="list-style-type: none"> <li>-using devices such as ipads and tablets to play interactive Maths or Literacy games</li> <li>-accessing the interactive whiteboard to move objects on screen, touch objects or answers</li> <li>-through continuous provision e.g. home/shop area- shop tills, telephones, devices with switches,</li> </ul>					
<b>Year 1</b>	<p><b>Technology Around Us</b></p> <ul style="list-style-type: none"> <li>-identifying technology</li> <li>-identifying a computer and its main parts</li> <li>-using a mouse in different ways</li> <li>-using a keyboard to type</li> <li>-using the keyboard to edit text</li> <li>-creating rules for using technology responsibly</li> </ul> <p><b>Vocabulary</b> technology, computer, mouse, trackpad, keyboard, screen, double-click, typing</p>	<p><b>Creating Media- Digital Painting</b></p> <ul style="list-style-type: none"> <li>-describing what different freehand tools do</li> <li>-using the shape tool and the line tools</li> <li>-making careful choices when painting a digital picture</li> <li>-explaining why I chose the tools I used</li> <li>-using a computer on my own to paint a picture</li> <li>-comparing painting a picture on a computer and on paper</li> </ul> <p><b>Vocabulary</b> paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo</p>	<p><b>Programing A- Moving a Robot</b></p> <ul style="list-style-type: none"> <li>-explaining what a given command will do</li> <li>-acting out a given word</li> <li>-combining forwards and backwards commands to make a sequence</li> <li>-combining four direction commands to make sequences</li> <li>-planning a simple program</li> <li>-finding more than one solution to a problem</li> </ul> <p><b>Vocabulary</b> Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program</p>	<p><b>Data and Information- Grouping Data</b></p> <ul style="list-style-type: none"> <li>-labelling objects</li> <li>-identifying that objects can be counted</li> <li>- describing objects in different ways</li> <li>-counting objects with the same properties</li> <li>-comparing groups of objects</li> <li>-answering questions about groups of objects</li> </ul> <p><b>Vocabulary</b> object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same</p>	<p><b>Creating Media- Digital Writing</b></p> <ul style="list-style-type: none"> <li>-using a computer to write</li> <li>-adding and removing text on a computer</li> <li>-identifying that the look of text can be changed on a computer</li> <li>-making careful choices when changing text</li> <li>-explaining why I used the tools that I chose</li> <li>-comparing typing on a computer to writing on paper</li> </ul> <p><b>Vocabulary</b> word processor, keyboard, keys, letters, type, numbers, space, backspace, text cursor, capital letters, toolbar, bold, italic, underline, mouse, select, font, undo, redo, format, compare, typing, writing</p>	<p><b>Programing B- Animations</b></p> <ul style="list-style-type: none"> <li>-choosing a command for a given purpose</li> <li>-showing that a series of commands can be joined together</li> <li>-identifying the effect of changing a value</li> <li>-explaining that each sprite has its own instructions</li> <li>-designing the parts of a project</li> <li>-using my algorithm to create a program</li> </ul> <p><b>Vocabulary</b> ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design</p>

		tool, colour, brush style, brush size, pictures, painting, computers				
Year 2	<p><b>Information Technology Around Us</b></p> <ul style="list-style-type: none"> <li>-recognising the uses and features of information technology</li> <li>-identifying the uses of information technology in the school</li> <li>-identifying information technology beyond school</li> <li>-explaining how information technology helps us</li> <li>-explaining how to use information technology safely</li> <li>-recognising that choices are made when using information technology</li> </ul> <p><b>Vocabulary</b> Information technology (IT), computer, barcode, scanner/scan</p>	<p><b>Creating media-Digital Photography</b></p> <ul style="list-style-type: none"> <li>-using a digital device to take a photograph</li> <li>-making choices when taking a photograph</li> <li>-describing what makes a good photograph</li> <li>-deciding how photographs can be improved</li> <li>-using tools to change an image</li> <li>-recognising that photos can be changed</li> </ul> <p><b>Vocabulary</b> device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format, framing, lighting,</p>	<p><b>Programming A-Robot Algorithms</b></p> <ul style="list-style-type: none"> <li>-describing a series of instructions as a sequence</li> <li>-explaining what happens when we change the order of instructions</li> <li>-using logical reasoning to predict the outcome of a program</li> <li>- explaining that programming projects can have code and artwork</li> <li>- designing an algorithm</li> <li>-creating and debugging a program that I have written</li> </ul> <p><b>Vocabulary</b> instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition</p>	<p><b>Data and Information-Pictograms</b></p> <ul style="list-style-type: none"> <li>-recognising that we can count and compare objects using tally charts</li> <li>-recognising that objects can be represented as pictures</li> <li>-creating a pictogram</li> <li>-selecting objects by attribute and making comparisons</li> <li>-recognising that people can be described by attributes</li> <li>-explaining that we can present information using a computer</li> </ul> <p><b>Vocabulary</b> more than, less than, most, least, common, popular, organise, data, object, tally chart, votes, total, pictogram, enter, data, compare, objects, count, explain, attribute, group, same, different, conclusion, block diagram, sharing</p>	<p><b>Creating media- Digital Music</b></p> <ul style="list-style-type: none"> <li>-saying how music can make us feel</li> <li>-identifying that there are patterns in music</li> <li>-experimenting with sound using a computer</li> <li>-using a computer to create a musical pattern</li> <li>-creating music for a purpose</li> <li>-reviewing and refining our computer work</li> </ul> <p><b>Vocabulary</b> music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion, beat, instrument, open, edit</p>	<p><b>Programming B- Programming Quizzes</b></p> <ul style="list-style-type: none"> <li>-choosing a command for a given purpose</li> <li>-showing that a series of commands can be joined together</li> <li>-identifying the effect of changing a value</li> <li>-explaining that each sprite has its own instructions</li> <li>- designing the parts of a project</li> <li>-using my algorithms to create a program</li> </ul> <p><b>Vocabulary</b> sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify, change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code</p>

<p>Year 3</p>	<p><b>Computing Systems and Networks- Connecting Computers</b></p> <ul style="list-style-type: none"> <li>-explaining how digital devices function</li> <li>-identifying input and output devices</li> <li>-recognising how digital devices can change the way that we work</li> <li>-explaining how a computer network can be used to share information</li> <li>-exploring how digital devices can be connected</li> <li>-recognising the physical components of a network</li> </ul> <p><b>Vocabulary</b> digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets</p>	<p><b>Creating Media- Stop-frame animation</b></p> <ul style="list-style-type: none"> <li>-explaining that animation is a sequence of drawings or photographs</li> <li>-relating animated movement with a sequence of images</li> <li>-planning an animation</li> <li>-identifying the need to work consistently and carefully</li> <li>-review and improve an animation</li> <li>-evaluating the impact of adding other media to an animation</li> </ul> <p><b>Vocabulary</b> animation, flip book, stopframe, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition</p>	<p><b>Programming A- Sequencing sounds</b></p> <ul style="list-style-type: none"> <li>-exploring a new programming environment</li> <li>-identifying that commands have an outcome</li> <li>-explaining that a program has a start</li> <li>-recognising that a sequence of commands can have an order</li> <li>-changing the appearance of my project</li> <li>-creating a project from a task description</li> </ul> <p><b>Vocabulary</b> Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, run the code, order, note, chord, algorithm, bug, debug, code</p>	<p><b>Data and Information- Branching Databases</b></p> <ul style="list-style-type: none"> <li>-creating questions with yes/no answers</li> <li>-identifying the attributes needed to collect data about an object</li> <li>-creating a branching database</li> <li>-explaining why it is helpful for a database to be well structured</li> <li>- planning the structure of a branching database</li> <li>-independently creating an identification tool</li> </ul> <p><b>Vocabulary</b> attribute, value, questions, table, objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree</p>	<p><b>Creating Media- Desktop Publishing</b></p> <ul style="list-style-type: none"> <li>-recognising how text and images convey information</li> <li>-recognising that a text and layout can be edited</li> <li>-choosing appropriate page settings</li> <li>-adding content to a desktop publishing publication</li> <li>-considering how different layouts can suit different purposes</li> <li>considering the benefits of desktop publishing</li> </ul> <p><b>Vocabulary</b> text, images, advantages, disadvantages, communicate, font, style, landscape, portrait, orientation, placeholder, template, layout, content, desktop publishing, copy, paste, purpose, benefits</p>	<p><b>Programming B- Events and Actions in Programs</b></p> <ul style="list-style-type: none"> <li>-explaining how a sprite moves in an existing project</li> <li>-creating a program to move a sprite in four directions</li> <li>-adapting a program to a new context</li> <li>-developing my program by adding features</li> <li>-identifying and fixing bugs in a program</li> <li>- designing and creating a maze-based challenge</li> </ul> <p><b>Vocabulary</b> motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions</p>
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<p>Year 4</p>	<p><b>Computing systems and networks - Connecting computers- The Internet</b></p> <ul style="list-style-type: none"> <li>-describing how networks physically connect to other networks</li> <li>-recognising how networked devices make up the internet</li> <li>-outlining how websites can be shared via the World Wide Web (WWW)</li> <li>-recognising how the content of the WWW is created by people</li> <li>-evaluating the consequences of unreliable content</li> </ul> <p><b>Vocabulary</b> Internet, network, router, security, switch, server, wireless access point (WAP), website, web page, web address, routing, web browser, World Wide Web, content, links, files, use, download, sharing,</p>	<p><b>Creating Media-Audio production</b></p> <ul style="list-style-type: none"> <li>-identifying that sound can be recorded</li> <li>-explaining that audio recordings can be edited</li> <li>-recognising the different parts of creating a podcast project</li> <li>-applying audio editing skills independently</li> <li>-combining audio to enhance my podcast project</li> <li>-evaluating the effective use of audio</li> </ul> <p><b>Vocabulary</b> audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, playback, selection, load, save, export, MP3, evaluate, feedback.</p>	<p><b>Programming A-Repetition in Shapes</b></p> <ul style="list-style-type: none"> <li>-identifying that accuracy in programming is important</li> <li>-creating a program in a text-based language</li> <li>-explaining what 'repeat' means</li> <li>-modifying a count-controlled loop to produce a given outcome</li> <li>-decomposing a task into small steps</li> <li>-creating a program that uses count-controlled loops to produce a given outcome</li> </ul> <p><b>Vocabulary</b> Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure.</p>	<p><b>Data and Information-Data Logging</b></p> <ul style="list-style-type: none"> <li>-explaining that data gathered over time can be used to answer questions</li> <li>-using a digital device to collect data automatically</li> <li>-explaining that a data logger collects 'data points' from sensors over time</li> <li>-recognising how a computer can help us analyse data</li> <li>-identifying the data needed to answer questions</li> <li>-using data from sensors to answer questions</li> </ul> <p><b>Vocabulary</b> data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion</p>	<p><b>Creating Media-Photo Editing</b></p> <ul style="list-style-type: none"> <li>-explaining that the composition of digital images can be changed</li> <li>-explaining that colours can be changed in digital images</li> <li>-explaining how cloning can be used in photo editing</li> <li>-explaining that images can be combined</li> <li>-combining images for a purpose</li> <li>-evaluating how changes can improve an image</li> </ul> <p><b>Vocabulary</b> image, edit, digital, crop, rotate, undo, save, adjustments, effects, colours, hue, saturation, sepia, vignette, image, retouch, clone, select, combine, made up, real, composite, cut, copy, paste, alter, background, foreground, zoom, undo, font</p>	<p><b>Programming B-Repetition in Games</b></p> <ul style="list-style-type: none"> <li>-developing the use of count-controlled loops in a different program</li> <li>-explaining that in programming there are infinite loops and count-controlled loops</li> <li>-developing a design that includes two or more loops which run at the same time</li> <li>-modifying an infinite loop in a given program</li> <li>- designing a project that includes repetition</li> <li>-creating a project that includes repetition</li> </ul> <p><b>Vocabulary</b> Scratch, programming, sprite, blocks, code, loop, repeat, value, infinite loop, count-controlled loop, costume, repetition, forever, animate, event block, duplicate, modify, design, algorithm, debug, refine, evaluate</p>
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	ownership, permission, information, accurate, honest, content, adverts					
Year 5	<p><b>Computing Systems and networks- Systems and Searching</b></p> <ul style="list-style-type: none"> <li>-explaining that computers can be connected together to form systems</li> <li>-recognising the role of computer systems in our lives</li> <li>-identifying how to use a search engine</li> <li>-describing how search engines select results</li> <li>-explaining how search results are ranked</li> <li>-recognising why the order of results is important, and to whom</li> </ul> <p><b>Vocabulary</b> system, connection, digital, input, process, storage, output, search, search engine, refine, index, bot, ordering, links, algorithm, search</p>	<p><b>Creating Media- Video Production</b></p> <ul style="list-style-type: none"> <li>-explaining what makes a video effective</li> <li>-using a digital device to record video</li> <li>-capturing video using a range of techniques</li> <li>-creating a storyboard</li> <li>-identifying that video can be improved</li> <li>-considering the impact of the choices made when making and sharing a video</li> </ul> <p><b>Vocabulary</b> video, audio, camera, talking head, panning, close up, video camera, microphone, lens, mid-range, long shot, moving subject, side by side, angle (high,  </p>	<p><b>Programming A- Selection in Physical Computing</b></p> <ul style="list-style-type: none"> <li>-controlling a simple circuit connected to a computer</li> <li>-writing a program that includes count-controlled loops</li> <li>-explaining that a loop can stop when a condition is met</li> <li>-explaining that a loop can be used to repeatedly check whether a condition has been met</li> <li>-designing a physical object that includes selection</li> <li>-creating a program that controls a physical computing project</li> </ul> <p><b>Vocabulary</b> microcontroller, USB, components, connection, infinite loop, output component, motor, repetition, count-controlled loop,  </p>	<p><b>Data and Information- Flat-file Databases</b></p> <ul style="list-style-type: none"> <li>-using a form to record information</li> <li>-comparing paper and computer-based databases</li> <li>-outlining how you can answer questions by grouping then sorting data</li> <li>-explaining that tools can be used to select specific data</li> <li>-explaining that computer programs can be used to compare data visually</li> <li>-using a real-life database to answer questions</li> </ul> <p><b>Vocabulary</b> database, data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation</p>	<p><b>Creating media- Introduction to Vector Graphics</b></p> <ul style="list-style-type: none"> <li>-identifying that drawing tools can be used to produce different outcomes</li> <li>-creating a vector drawing by combining shapes</li> <li>-using tools to achieve a desired effect</li> <li>-recognising that vector drawings consist of layers</li> <li>-grouping objects to make them easier to work with</li> <li>-applying what I have learned about vector drawings</li> </ul> <p><b>Vocabulary</b> vector, drawing tools, object, toolbar, vector drawing, move, resize, colour, rotate, duplicate/copy, zoom, select, align, modify, layers, order, copy, paste, group, ungroup, reuse, reflection</p>	<p><b>Programming B- Selection in Quizzes</b></p> <ul style="list-style-type: none"> <li>-explaining how selection is used in computer programs</li> <li>-relating that a conditional statement connects a condition to an outcome</li> <li>-explaining how selection directs the flow of a program</li> <li>-designing a program that uses selection</li> <li>-creating a program that uses selection</li> <li>-evaluating my program</li> </ul> <p><b>Vocabulary</b> selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, task, design, input, implement, test, run, setup, operator</p>

	engine optimisation (SEO), web crawler, content creator, selection, ranking	low, normal), static, zoom, pan, tilt, storyboard, filming, review, import, split, trim, clip, edit, reshoot, delete, reorder, export, evaluate, share	Crumble controller, switch, LED, Sparkle, crocodile clips, connect, battery box, program, condition, Input, output, selection, action, debug, circuit, power, cell, buzzer			
Year 6	<p><b>Computing Systems and networks- Communication and Collaboration</b></p> <p>-explaining the importance of internet addresses -recognising how data is transferred across the internet -explaining how sharing information online can help people to work together -evaluating different ways of working together online -recognising how we communicate using technology -evaluating different methods of online communication</p> <p><b>Vocabulary</b> communication, protocol, data, address, Internet Protocol (IP),</p>	<p><b>Creating Media- Web page creation</b></p> <p>-reviewing an existing website and consider its structure -planning the features of a web page -considering the ownership and use of images (copyright) -recognising the need to preview pages -outlining the need for a navigation path -recognising the implications of linking to content owned by other people</p> <p><b>Vocabulary</b> website, web page, browser, media, Hypertext Markup Language (HTML),</p>	<p><b>Programming A- Variables in Games</b></p> <p>-defining a 'variable' as something that is changeable -explaining why a variable is used in a program -choosing how to improve a game by using variables -designing a project that builds on a given example -using my design to create a project -evaluate my project</p> <p><b>Vocabulary</b> variable, change, name, value, set, design, event, algorithm, code, task, artwork, program, project, code, test, debug, improve, evaluate, share, assign, declare</p>	<p><b>Data and Information- Introduction to Spreadsheets</b></p> <p>-creating a data set in a spreadsheet -building a data set in a spreadsheet -explaining that formulas can be used to produce calculated data -applying formulas to data -creating a spreadsheet to plan an event -choosing suitable ways to present data</p> <p><b>Vocabulary</b> data, collecting, table, structure, spreadsheet, cell, cell reference, data item, format, formula, calculation, spreadsheet, input, output, operation, range, duplicate, sigma, propose, question, data set, organised, chart, evaluate, results, sum,</p>	<p><b>Creating Media- 3D Modelling</b></p> <p>-recognising that you can work in three dimensions on a computer -identifying that digital 3D objects can be modified -recognising that objects can be combined in a 3D model -creating a 3D model for a given purpose -planning my own 3D model -creating my own digital 3D model</p> <p><b>Vocabulary</b> TinkerCAD, 2D, 3D, shapes, select, move, perspective, view, handles, resize, lift, lower, recolour, rotate, duplicate, group, cylinder, cube, cuboid, sphere, cone, prism, pyramid, placeholder, hollow, choose, combine, construct, evaluate, modify</p>	<p><b>Programming B- Sensing Movement</b></p> <p>-creating a program to run on a controllable device -explaining that selection can control the flow of a program -updating a variable with a user input -using an conditional statement to compare a variable to a value -designing a project that uses inputs and outputs on a controllable device -developing a program to use inputs and outputs on a controllable device</p> <p><b>Vocabulary</b> Micro:bit, MakeCode, input, process, output, flashing, USB, trace, selection, condition, if then else, variable, random, sensing, accelerometer, value, compass, direction, navigation, design, task,</p>

	Domain Name Server (DNS), packet, header, data payload, chat, explore, slide deck, reuse, remix, collaboration, internet, public, private, oneway, two-way, one-to-one, one-to-many.	logo, layout, header, media, purpose, copyright, fair use, home page, preview, evaluate, device, Google Sites, breadcrumb trail, navigation, hyperlink, subpage, evaluate, implication, external link, embed.		comparison, software, tools.		algorithm, step counter, plan, create, code, test, debug
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