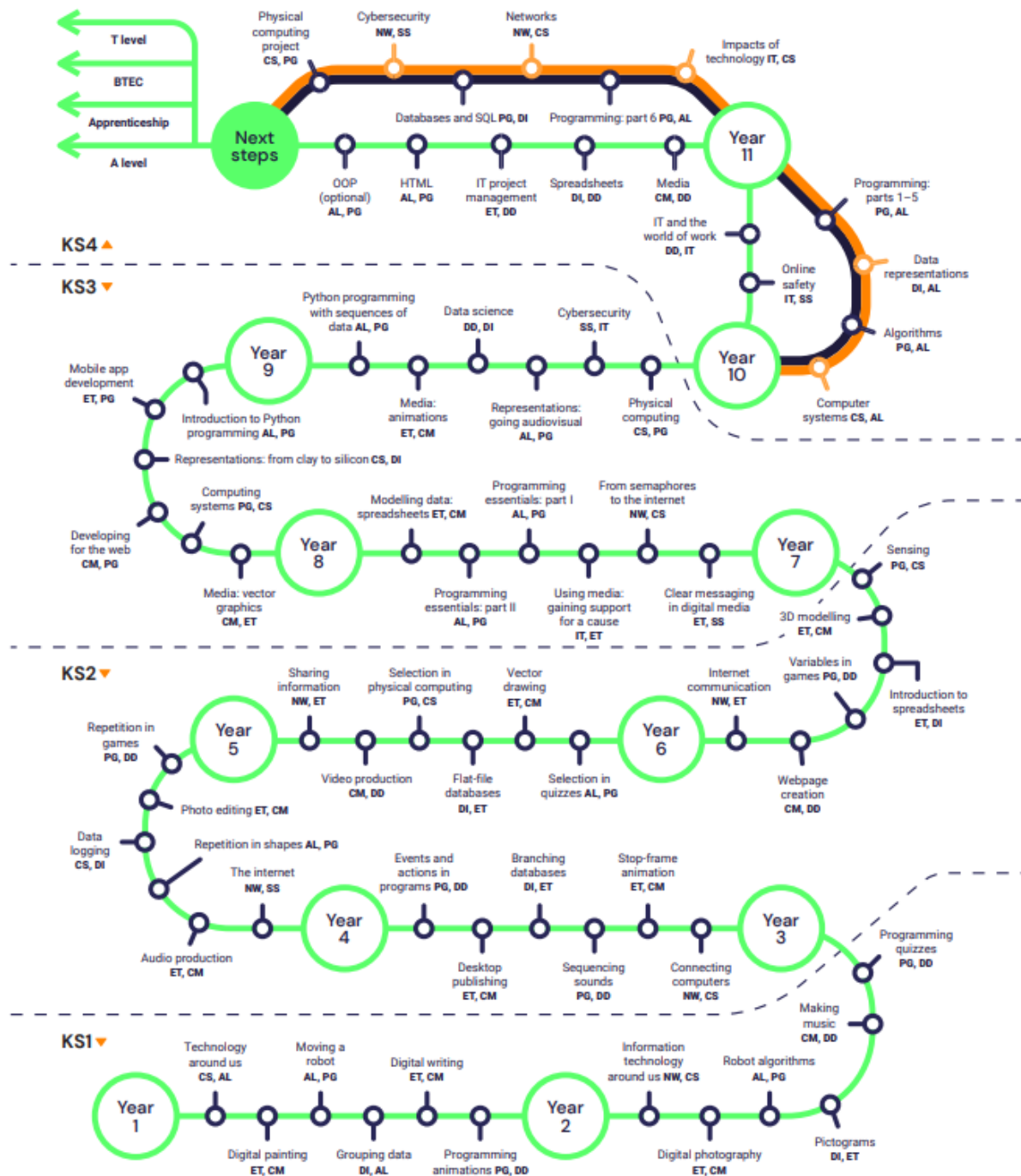


Below is the Teach Computing Curriculum Journey which detail how the programme provides children with the skills that they need to demonstrate their best in an increasingly digital age beginning at Year 1 and working through until the end of Year 11.

Teach Computing Curriculum Journey

- Key**
- AL Algorithms
 - CS Computing systems
 - CM Creating media
 - DI Data & information
 - DD Design & development
 - ET Effective use of tools
 - IT Impact of technology
 - NW Networks
 - PG Programming
 - SS Safety & security
 - Computing
 - GCSE CS: Programming
 - GCSE CS: Theory



	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
EYFS	Children in EYFS do not access the Computing National Curriculum. However to ensure that they are set up for success and to demonstrate their best, they are given a broad range of technological experiences through the use of iPads, Bee-Bots and the class interactive whiteboard.					
Year 1	<p>Term focus: Technology around us</p> <p>Focus content: Children will become familiar with components of a computer by developing their keyboard and mouse skills and will begin to use technology responsibly.</p> <p>Resources and programmes:</p> <ul style="list-style-type: none"> • Paintz.app <p>Vocabulary bank: Technology, computer, mouse, trackpad, keyboard,</p>	<p>Term focus: Digital painting</p> <p>Focus content: Children will use a variety of tools to explore and create their own digital paintings by drawing inspiration from other artists.</p> <p>Resources and programmes:</p> <ul style="list-style-type: none"> • Paintz.app <p>Vocabulary bank: Paint program, tool, paintbrush, erase, fill, undo, shape tools, line</p>	<p>Term focus: Moving a robot</p> <p>Focus content: This unit introduces children to early programming. They will explore using commands and use the knowledge they gain to predict the outcome of programmes.</p> <p>Resources and programmes:</p> <ul style="list-style-type: none"> • Bee-Bots <p>Vocabulary bank: Bee-Bot, forwards, backwards, turn, clear, go, commands,</p>	<p>Term focus: Grouping data</p> <p>Focus content: Children will begin by using labels to categorise objects into groups based upon properties they choose. This will culminate in the children sorting objects into groups to answer data questions.</p> <p>Resources and programmes:</p>	<p>Term focus: Digital writing</p> <p>Focus content: Children will learn use software to create and change text. They will become familiar with typing on a keyboard, changing fonts and consider the differences between writing and typing.</p> <p>Resources and programmes:</p> <ul style="list-style-type: none"> • Keyboard • Mouse • Google documents <p>Vocabulary bank: Word processor, keyboard, keys, letters, type, numbers, space,</p>	<p>Term focus: Programming animations</p> <p>Focus content: Pupils are introduced to on-screen programming and algorithms via ScratchJr. They will explore the appearance of a project's sprites and background and use their developing skills to use, modify and create programs.</p> <p>Resources and programmes:</p> <ul style="list-style-type: none"> • ScratchJr <p>Vocabulary bank: ScratchJr, command, sprite, compare, programming, area,</p>

	screen, double-click, typing.	tool, fill tool, undo tool, colour, brush style, brush size, pictures, painting, computers.	instructions, directions, left, right, route, plan, algorithm, program.	value, data set, more, less, most, fewest, least, the same.	backspace, text cursor, capital letters, toolbar, bold, italic, underline, mouse, select, font, undo, redo, format, compare, typing, writing.	block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design
	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • create and debug simple programs. • use logical reasoning to predict the behaviour of 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • use technology purposefully to create, organise, store, manipulate and retrieve digital content. • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • use technology purposefully to create, organise, store, manipulate and retrieve digital content • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • create and debug simple programs. • use logical reasoning to predict the behaviour of

	they have concerns about content or contact on the internet or other online technologies.		<p>simple programs.</p> <ul style="list-style-type: none"> recognise common uses of information technology beyond school. 	other online technologies.	other online technologies.	<p>simple programs.</p> <ul style="list-style-type: none"> use technology purposefully to create, organise, store, manipulate and retrieve digital content.
Year 2	Term focus: Information technology around us	Term focus: Digital photography	Term focus: Robot algorithms	Term focus: Pictograms	Term focus: Digital music	Term focus: Programming quizzes
	Focus content: The children will consider questions such as ‘how is information technology being used for good in our lives?’ before considering how technology is used responsibly.	Focus content: Children will recognise that different devices can be used to capture photos and will gain experiences in capturing, editing and improving photos using software.	Focus content: This unit builds upon the work done in ‘Moving a robot’ to develop the children’s grasp of sequences and predictive reasoning. They will give commands in different orders and investigate how this changes the outcome. Furthermore, they will design and test algorithms as programs and debug them.	Focus content: The children will begin to understand what data means and how it can be collected in tally charts. They will also, learn the term ‘attribute’ and use it this to organise data. Finally progressing on to presenting data in the form of pictograms and block diagrams. This data will then be used to answer questions.	Focus content: Children will explore how music makes them think and feel. They will create patterns to make music with percussion instruments and digital tools. Their creations will be shared and compare the process of making music physically against making music digitally.	Focus content: Learning from ‘Programming animations’ will be recapped and developed to consider the outcome of command sequences. They will then modify designs to create their own quiz questions in ScratchJr use block of code.

	<p><u>Resources and programmes:</u></p>	<p><u>Resources and programmes:</u></p> <ul style="list-style-type: none"> • pixlr • iPads • Torches/lamps 	<p><u>Resources and programmes:</u></p> <ul style="list-style-type: none"> • Bee-bots 	<p><u>Resources and programmes:</u></p> <ul style="list-style-type: none"> • J2e pictogram 	<p><u>Resources and programmes:</u></p> <ul style="list-style-type: none"> • Music lab 	<p><u>Resources and programmes:</u></p> <ul style="list-style-type: none"> • ScratchJr
	<p><u>Vocabulary bank:</u> Information technology (IT), computer, barcode, scanner/scan.</p>	<p><u>Vocabulary bank:</u> device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format, framing, lighting.</p>	<p><u>Vocabulary bank:</u> instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition.</p>	<p><u>Vocabulary bank:</u> 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><u>Vocabulary bank:</u> music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion, beat, instrument, open, edit.</p>	<p><u>Vocabulary bank:</u> 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><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • use technology purposefully to create, organise, store, manipulate and retrieve digital content. • recognise common uses of information 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • use technology purposefully to create, organise, store, manipulate and retrieve digital content. • recognise common uses of information 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • use technology purposefully to create, organise, store, manipulate and retrieve digital content. • use technology safely and respectfully, 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • use technology purposefully to create, organise, store, manipulate and retrieve digital content. 	<p><u>National Curriculum links:</u></p> <ul style="list-style-type: none"> • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by

	<p>technology beyond school.</p> <ul style="list-style-type: none"> • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. 	<p>technology beyond school.</p> <ul style="list-style-type: none"> • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. 	<p>following precise and unambiguous instructions.</p> <ul style="list-style-type: none"> • create and debug simple programs. • use logical reasoning to predict the behaviour of simple programs. • use technology purposefully to create, organise, store, manipulate and retrieve digital content. 	<p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p>		<p>following precise and unambiguous instructions.</p> <ul style="list-style-type: none"> • create and debug simple programs. • use logical reasoning to predict the behaviour of simple programs.
Year 3	<p>Term focus: Connecting computers</p>	<p>Term focus: Stop-frame animations</p>	<p>Term focus: Sequencing sounds</p>	<p>Term focus: Branching databases</p>	<p>Term focus: Desktop publishing</p>	<p>Term focus: Events and actions in programs</p>
	<p>Focus content: The children will develop their understanding of digital devices with a focus on inputs, process and outputs. They will start by comparing digital</p>	<p>Focus content: The children will create stop-frame animations using tablets. This will be developed to create a story-based animation that incorporates learning from the</p>	<p>Focus content: The unit will explore sequencing programming through Scratch. The children will be introduced to the programme where they will select motion, sound and</p>	<p>Focus content: Children will develop an understanding of what a branching database is and how they can create one using yes/no questions to gain an</p>	<p>Focus content: Children will become familiar with the terms 'text' and 'images', understanding that they can be used to communicate messages. They will also use desktop</p>	<p>Focus content: This unit will consolidate prior learning relating to sequencing by moving a sprite in four directions (up, down, left and right). This will be explored within the</p>

	and non-digital devices before being introduced to network infrastructure devices like routers and switches.	topic 'digital music' as children add music into their animation.	event blocks to create their own programs. Ultimately the children will be make a representation of a piano.	understanding of what attributes are and how they are used to sort groups of objects. Over the course of this unit the children will create physical and on-screen branching databases.	publishing software to make careful choices about font, size, colour and typing to improve upon premade documents. They will be adding text and images to create their own piece of work using software.	context of a maze. The children will be introduced to programming extensions using pen blocks.
	<u>Resources and programmes:</u>	<u>Resources and programmes:</u> <ul style="list-style-type: none"> iPads iMotion 	<u>Resources and programmes:</u> <ul style="list-style-type: none"> Scratch 	<u>Resources and programmes:</u> <ul style="list-style-type: none"> J2e database tools 	<u>Resources and programmes:</u> <ul style="list-style-type: none"> Canva This will require parental consent found here. 	<u>Resources and programmes:</u> <ul style="list-style-type: none"> Scratch
	Vocabulary bank: digital device, input, process, output, programme, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets.	Vocabulary bank: animation, flip book, stop-frame, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition.	Vocabulary bank: 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,	Vocabulary bank: attribute, value, questions, table, objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree.	Vocabulary bank: text, images, advantages, disadvantages, communicate, font, style, landscape, portrait, orientation, placeholder, template, layout, content, desktop publishing, copy,	Vocabulary bank: motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions.

			note, chord, algorithm, bug, debug, code.		paste, purpose, benefits.	
	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration • select, use and combine a 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information • use technology safely, respectfully and 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms

	variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	responsibly, recognise acceptable/unacceptable behaviour, identify a range of ways to report concerns about content and contact.	work and to detect and correct errors in algorithms and programs <ul style="list-style-type: none"> select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information 		collecting, analysing, evaluating and presenting data and information	work and to detect and correct errors in algorithms and programs <ul style="list-style-type: none"> select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
Year 4	Term focus: The internet	Term focus: Audio production	Term focus: Repetition in shapes	Term focus: Data logging	Term focus: Photo editing	Term focus: Repetition in games
	Focus content:	Focus content:	Focus content:	Focus content:	Focus content:	Focus content:

	<p>Prior knowledge of networks will be drawn upon to appreciate the internet as a network of networks which should be kept secured. The children will be given opportunities to explore the World Wide Web for themselves to learn about who owns content, what they can access, add and create. This will culminate in children evaluating online content to determine how honest, accurate or reliable it is and to understand the impact of false information.</p>	<p>Children will identify input devices (microphones) and output devices (speakers or headphones) that are required to work with sound digitally. They will discuss the ownership of digital audio and copyright implications of duplicating the work of others.</p>	<p>The first of two programming unites in Year 4, the children will look at repetition and loops within programming to create programmes by planning, modifying and testing commands to create shapes and patterns.</p>	<p>The children will consider how and why data is collected over time. They will compare the senses that humans use to experience the world and how computers can use special input devices called sensor to monitor the environment, collecting data as well as accessing data captured over long periods of time, the children will use computers to review and analyse data.</p>	<p>The children will build upon their understanding of how digital images can be changed and edited, and how they can be resaved and reused. They will reflect upon the impact that editing images can have and evaluate whether their choices are effective.</p>	<p>This unit will explore the concept of repetition in programming using Scratch. Children will draw upon their learning in 'Repetition in shapes' to discover similarities between the different coding environments. They will learn about the differences in count-controlled and infinite loops and use the knowledge to alter existing animations and games using repetition.</p>
	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • Chrome Music Lab 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • Audacity • Microphones • Headphones 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • TurtleAcademy 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • iPads • Arduino science journal 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • Befunky photo editor • 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • Scratch

				data logging app		
	Vocabulary bank: 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, ownership, permission, information, accurate, honest, content, adverts.	Vocabulary bank: audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, playback, selection, load, save, export, MP3, evaluate, feedback.	Vocabulary bank: Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure.	Vocabulary bank: data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion.	Vocabulary bank: 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.	Vocabulary bank: 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.
	National Curriculum links: <ul style="list-style-type: none"> understand computer networks including the internet; how they can provide multiple 	National Curriculum links: <ul style="list-style-type: none"> use search technologies effectively, appreciate how results are selected and ranked, and be discerning in 	National Curriculum links: <ul style="list-style-type: none"> design, write and debug programs that accomplish specific goals, including controlling or simulating 	National Curriculum links: <ul style="list-style-type: none"> use sequence, selection, and repetition in programs; work with variables and various forms of input and output. 	National Curriculum links: <ul style="list-style-type: none"> select, use and combine a variety of software (including internet services) on a range of digital 	National Curriculum links: <ul style="list-style-type: none"> design, write and debug programs that accomplish specific goals, including controlling or simulating

	<p>services, such as the world wide web; and the opportunities they offer for communication and collaboration.</p> <ul style="list-style-type: none"> • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that 	<p>evaluating digital content.</p> <ul style="list-style-type: none"> • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable 	<p>physical systems; solve problems by decomposing them into smaller parts.</p> <ul style="list-style-type: none"> • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • select, use and combine a variety of software (including internet services) on a range of digital devices to 	<ul style="list-style-type: none"> • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. 	<p>devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <ul style="list-style-type: none"> • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<p>physical systems; solve problems by decomposing them into smaller parts.</p> <ul style="list-style-type: none"> • use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
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	<p>accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <ul style="list-style-type: none"> • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 	<p>behaviour; identify a range of ways to report concerns about content and contact</p>	<p>design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p>			
Year 5	Term focus: Systems and searching	Term focus: Video production	Term focus: Selection in physical computing	Term focus: Flat-file databases	Term focus: Introduction to vector graphics	Term focus: Selection in quizzes
	Focus content: The children will develop their understanding of computer systems and how	Focus content: In this unit the children will learn how to create short videos in groups by developing the	Focus content: The children will use physical computing to explore selection in programming using	Focus content: Children will look at how to organise data in records using a flat-file data-base. They will	Focus content: The children will learn how to use drawing tools to create images using shapes and lines.	Focus content: Pupils develop their knowledge of selection by revisiting how conditions can be

	<p>information is transferred between systems and devices. They will consider small-scale systems as well as large-scale systems. This will build on previous learning as the children explain the input, output and process aspects of various real-world systems.</p>	<p>skills of capturing, editing and manipulating video.</p>	<p>Crumble. They will be introduced to a microcontroller and learn how to connect and programme components (including output devices – LEDs and motors) by applying their existing programming knowledge. They will be introduced to conditions as a means of controlling the flow of actions and make use of their knowledge of repetition and conditions.</p>	<p>use tools within a database to order and answer questions about data. This will involve the creation of graphs and charts based upon real-life data to help solve problems.</p>	<p>This develops into children learning to layering, grouping and duplicating objects to support the creation of more complex pieces of work.</p>	<p>used in programs. They will then learn how the 'If... Then.... Else... ' structure can be used to select different outcomes depending upon whether the condition is true or false. This will be represented in algorithms which will be used in constructing programmes using Scratch.</p>
	<p>Resources and programmes:</p>	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • iPads • Open Shot Video Editor 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • Crumble • Crumble controller • Light sensor • Push switch 	<p>Resources and programmes:</p>	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • Google Drawing 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> • Scratch
	<p>Vocabulary bank:</p>	<p>Vocabulary bank:</p>	<p>Vocabulary bank:</p>	<p>Vocabulary bank:</p>	<p>Vocabulary bank:</p>	<p>Vocabulary bank:</p>

	<p>System, connection, digital, input, process, output, protocol, address, packet, chat, explore, slide deck, reuse, remix, collaboration.</p>	<p>Video, audio, recording, storyboard, script, soundtrack, dialogue, capture, zoom, storage, digital, tape, AV (audiovisual), videographer, video techniques, zoom, pan, tilt, angle, YouTuber, content, camera, colour, export, trim/clip, titles, end credits, timeline, transitions, soundtrack, retake/reshoot, special effects, constructive feedback.</p>	<p>Microcontroller, controller, components, LED, crocodile clips, connect, battery, program, repetition, infinite loop, count-controlled loop, condition, true, false, input, action, selection, motor, switch, algorithm, debug, evaluate.</p>	<p>Database, data, information, record, field, sort, order, group, search, criteria, value, graph, chart, axis, compare, filter, presentation.</p>	<p>Vector, drawing tools, shapes, object, icons, toolbar, move, resize, colour, rotate, duplicate/copy, zoom, select, alignment grid, handles, consistency, modify, layers, front, back, copy, paste, group, ungroup, reuse, improvement, evaluate, alternatives.</p>	<p>Selection, condition, true, false, count-controlled loop, outcomes, conditional statement – the linking together of a condition and outcomes, algorithm, program, debug, implement, question, answer, task, input, outcomes, test, run, setup, share, evaluate, constructive.</p>
	<p>National Curriculum links:</p> <ul style="list-style-type: none"> design, write and debug programs that accomplish specific goals, including controlling or simulating 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> use search technologies effectively, appreciate how results are selected and ranked, and be discerning in 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> design, write and debug programs that accomplish specific goals, including controlling or simulating 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> use search technologies effectively, appreciate how results are selected and ranked, and be discerning in 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> select, use and combine a variety of software (including internet services) on a range of digital 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> design, write and debug programs that accomplish specific goals, including controlling or simulating

	<p>physical systems; solve problems by decomposing them into smaller parts.</p> <ul style="list-style-type: none"> • use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration • select, use and combine a 	<p>evaluating digital content</p> <ul style="list-style-type: none"> • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable 	<p>physical systems; solve problems by decomposing them into smaller parts.</p> <ul style="list-style-type: none"> • use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • select, use and combine a variety of software (including internet services) on a range of digital devices to 	<p>evaluating digital content.</p> <ul style="list-style-type: none"> • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. 	<p>devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>physical systems; solve problems by decomposing them into smaller parts.</p> <ul style="list-style-type: none"> • use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • select, use and combine a variety of software (including internet services) on a range of digital devices to
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	variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	behaviour; identify a range of ways to report concerns about content and contact.	design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.			design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Year 6	Term focus: Communication and collaboration	Term focus: Web page creation	Term focus: Variables in games	Term focus: Spreadsheets	Term focus: 3D modelling	Term focus: Sensing movement
	Focus content: The children will learn how data is transferred over the internet through addressing and data packets, eventually moving on to how internet	Focus content: In this unit, the children will consider how websites are created for a chosen purpose, identifying what	Focus content: Children will learn what variables are and relate them to real-world examples of values that can be set and change.	Focus content: Children will be introduced to spreadsheets as a means of organising data into columns and rows to create their own data sets.	Focus content: In this unit, children will produce 3D models. Initially, they will familiarise themselves with working in a 3D space by moving,	Focus content: As the final KS2 programming unit, the children will apply all four elements of the programming constructs (sequencing from

	<p>facilitates communicate and share projects. This will culminate in the children learning how to communicate responsibly by considering what should and should not be shared on the internet.</p>	<p>makes a good webpage. They will use this information to design and reflect upon a website of their own creation. Specific attention will be given to copyright, fair use, aesthetics of a website and navigation paths.</p>	<p>They will then modify and experiment with variables in existing projects before they create their own game in Scratch.</p>	<p>They will be taught the importance of formatting to support calculations and will be introduced to formulas and being to understand how they can be used to produce calculated data to answer questions and plan an event.</p>	<p>resizing and duplicating objects. They will eventually create hollow objects using placeholders and combine multiple objects. Eventually, by examining the benefit of grouping and ungrouping 3D objects, the children will plan, develop and evaluate their own 3D model of a building.</p>	<p>Year 3, repetition from Year 4, selection from Year 5 and variables that were introduced in Year 6). Children will be introduced to the micro:bit as an input, output device that can be programmed. This will culminate in the children making a micro:bit-based step counter by testing and debugging their code.</p>
	<p>Resources and programmes:</p> <ul style="list-style-type: none"> Scratch 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> Google Sites 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> Scratch 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> Google Sheets 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> Tinkercad 	<p>Resources and programmes:</p> <ul style="list-style-type: none"> Micro:bit Makecode micro:bit website
	<p>Vocabulary bank: Search, search engine, Google, Bing, Yahoo, Swisscows, DuckDuckGo, refine. index,</p>	<p>Vocabulary bank: Website, web page, browser, media, Hypertext Markup Language (HTML), layout, header, media, purpose,</p>	<p>Vocabulary bank: Variable, change, name, value, set, design, algorithm, code, task, artwork, program, project, code, test, debug,</p>	<p>Vocabulary bank: Spreadsheet, data, data heading, data set, cells, columns and rows, data item, format, common attribute,</p>	<p>Vocabulary bank: 2D, 3D, 3D object, 3D space, view, resize, colour, lift, rotate, position, select, duplicate, dimensions,</p>	<p>Vocabulary bank: Micro-bit, MakeCode, input, process, output, flashing, USB, selection, condition, if...</p>

	<p>crawler, bot, optimisation, links, web crawlers, content creator, ranking, communication, internet, public, private, one-way, two-way, one-to-one, one-to-many, SMS, email, WhatsApp, blog, YouTube, Twitter, BBC Newsround.</p>	<p>copyright, fair use, evaluate, preview, device, breadcrumb, trail, navigation, hyperlink, subpage, implication, external link, embed.</p>	<p>improve, evaluate, share.</p>	<p>formula, calculation, call reference, sigma, graph, evaluate, results, comparisons, questions, software, tools, data, propose.</p>	<p>placeholder, hole, group, ungroup, modify, evaluate, improve.</p>	<p>then... else, variable, random, navigation, design, task, step counter, plan, create, code, test, debug.</p>
	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • select, use and combine a variety of software (including internet services) on a 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • use sequence, selection, and repetition in 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including 	<p>National Curriculum links:</p> <ul style="list-style-type: none"> • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • use sequence, selection, and repetition in

	<ul style="list-style-type: none"> select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range 	<p>range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p> <ul style="list-style-type: none"> use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 	<p>programs; work with variables and various forms of input and output.</p> <ul style="list-style-type: none"> use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, 	<p>collecting, analysing, evaluating and presenting data and information.</p>	<p>collecting, analysing, evaluating and presenting data and information.</p> <ul style="list-style-type: none"> use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 	<p>programs; work with variables and various forms of input and output.</p> <ul style="list-style-type: none"> use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting,
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	of ways to report concerns about content and contact.		analysing, evaluating and presenting data and information.			analysing, evaluating and presenting data and information.
<p>To help with our implementation of the computing curriculum, we have a variety of hardware devices available across the school including:</p> <p>_____ iPads</p> <p>_____ laptops</p>						