

St Joseph's and St Gregory's Progression of Skills and Knowledge in Computing

The document below sets out the way in which the Computing curriculum will be covered at St Joseph's at St Gregory's Primary School. For information on EYFS please see the separate planning document.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	Computing systems and networks – Technology around us	Computing systems and network – IT around us	Computing systems and networks – Connecting computers	Computing systems and networks – The Internet	Computing systems and networks – Systems and searching	Computing systems and networks – Communication and collaboration
NC Objectives	<ul style="list-style-type: none"> 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 they have concerns about content or contact on the internet or other online technologies 	<ul style="list-style-type: none"> 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 they have concerns about content or contact on the internet or other online technologies 	<ul style="list-style-type: none"> Use sequence, selection, and repetition in programs; work with variables and various forms of input and output 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 Understand computer networks 	<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 Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content 	<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 Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content 	<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

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			including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration			
Component Knowledge	<ol style="list-style-type: none"> 1. To identify technology 2. To identify a computer and its main parts 3. To use a mouse in different ways 4. To use a keyboard to type on a computer 5. To use the keyboard to edit text 6. To create rules for using technology responsibly 	<ol style="list-style-type: none"> 1. To recognise the uses and features of information technology 2. To identify the uses of information technology in the school 3. To identify information technology beyond school 4. To explain how information technology helps us 5. To explain how to use information technology safely 6. To recognise that choices are made when using information technology 	<ol style="list-style-type: none"> 1. To explain how digital devices function 2. To identify input and output devices 3. To recognise how digital devices can change the way we work 4. To explain how a computer network can be used to share information 5. To explore how digital devices can be connected 6. To recognise the physical components of a network 	<ol style="list-style-type: none"> 1. To describe how networks physically connect to other networks 2. To recognise how networked devices make up the internet 3. To outline how websites can be shared via the World Wide Web (WWW) 4. To describe how content can be added and accessed on the World Wide Web (WWW) 5. To recognise how the content of the WWW is created by people 	<ol style="list-style-type: none"> 1. To explain that computers can be connected together to form systems 2. To recognise the role of computer systems in our lives 3. To experiment with search engines 4. To describe how search engines select results 5. To explain how search results are ranked 6. To recognise why the order of results is important, and to whom 	<ol style="list-style-type: none"> 1. To explain the importance of internet addresses 2. To recognise how data is transferred across the internet 3. To explain how sharing information online can help people to work together 4. To evaluate different ways of working together online 5. To recognise how we communicate using technology 6. To evaluate different methods of online communication

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				6. To evaluate the consequences of unreliable content		
Autumn 2	Creating media – Digital painting	Creating media – Digital photography	Creating media – Stop-frame animation	Creating media – Audio production	Creating media – Video production	Creating media – Web page creation
NC Objectives	<ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<ul style="list-style-type: none"> Use sequence, selection and repetition in programs; work with variables and various forms of input and output 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 	<ul style="list-style-type: none"> Use sequence, selection and repetition in programs; work with variables and various forms of input and output 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 	<ul style="list-style-type: none"> Use sequence, selection and repetition in programs; work with variables and various forms of input and output 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 	<ul style="list-style-type: none"> Use sequence, selection and repetition in programs; work with variables and various forms of input and output 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

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Component Knowledge	<ol style="list-style-type: none"> 1. To describe what different freehand tools do 2. To use the shape tool and the line tools 3. To make careful choices when painting a digital picture 4. To explain why I chose the tools I used 5. To use a computer on my own to paint a picture 6. To compare painting a picture on a computer and on paper 	<ol style="list-style-type: none"> 1. To use a digital device to take a photograph 2. To make choices when taking a photograph 3. To describe what makes a good photograph 4. To decide how photographs can be improved 5. To use tools to change an image 6. To recognise that photos can be changed 	<ol style="list-style-type: none"> 1. To explain that animation is a sequence of drawings or photographs 2. To relate animated movement with a sequence of images 3. To plan an animation 4. To identify the need to work consistently and carefully 5. To review and improve an animation 6. To evaluate the impact of adding other media to an animation 	<ol style="list-style-type: none"> 1. To identify that sound can be recorded 2. To explain that audio recordings can be edited 3. To recognise the different parts of creating a podcast project 4. To apply audio editing skills independently 5. To combine audio to enhance my podcast project 6. To evaluate the effective use of audio 	<ol style="list-style-type: none"> 1. To explain what makes a video effective 2. To identify digital devices that can record video 3. To capture video using a range of techniques 4. To create a storyboard 5. To identify that video can be improved through reshooting and editing 6. To consider the impact of the choices made when making and sharing a video 	<ol style="list-style-type: none"> 1. To review an existing website and consider its structure 2. To plan the features of a web page 3. To consider the ownership and use of images (copyright) 4. To recognise the need to preview pages 5. To outline the need for a navigation path 6. To recognise the implications of linking to content owned by other people
Spring 1	Programming A – Moving a robot	Programming A – Robot algorithms	Programming A – Sequencing sounds	Programming A – Repetition in shapes	Programming A – Selection in physical computing	Programming A – Variables in games
NC Objectives	<ul style="list-style-type: none"> • Use logical reasoning to predict the behaviour of simple programs • Understand what algorithms are; how they are 	<ul style="list-style-type: none"> • Use logical reasoning to predict the behaviour of simple programs • Understand what algorithms are; how they are 	<ul style="list-style-type: none"> • Use sequence, selection and repetition in programs; work with variables and various forms of input and output 	<ul style="list-style-type: none"> • Use sequence, selection and repetition in programs; work with variables and various forms of input and output 	<ul style="list-style-type: none"> • Use sequence, selection and repetition in programs; work with variables and various forms of input and output 	<ul style="list-style-type: none"> • Use sequence, selection and repetition in programs; work with variables and various forms of input and output

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	implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions <ul style="list-style-type: none"> • Create and debug simple programs 	<ul style="list-style-type: none"> • Use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs 	<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 • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts 	<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 • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts 	<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 • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
Component Knowledge	<ol style="list-style-type: none"> 1. To explain what a given command will do 2. To act out a given word 3. To combine forwards and backwards commands to make a sequence 4. To combine four direction commands to make sequences 	<ol style="list-style-type: none"> 1. To describe a series of instructions as a sequence 2. To explain what happens when we change the order of instructions 3. To use logical reasoning to predict the outcome of a program 4. To explain that programming 	<ol style="list-style-type: none"> 1. To explore a new programming environment 2. To identify that commands have an outcome 3. To explain that a program has a start 4. To recognise that a sequence of commands can have an order 	<ol style="list-style-type: none"> 1. To identify that accuracy in programming is important 2. To create a program in a text-based language 3. To explain what 'repeat' means 4. To modify a count-controlled loop to produce a given outcome 	<ol style="list-style-type: none"> 1. To control a simple circuit connected to a computer 2. To write a program that includes count-controlled loops 3. To explain that a loop can stop when a condition is met 4. To explain that a loop can be used to repeatedly 	<ol style="list-style-type: none"> 1. To define a 'variable' as something that is changeable 2. To explain why a variable is used in a program 3. To choose how to improve a game by using variables 4. To design a project that builds on a given example

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	5. To plan a simple program 6. To find more than one solution to a problem	projects can have code and artwork 5. To design an algorithm 6. To create and debug a program that I have written	5. To change the appearance of my project 6. To create a project from a task description	5. To decompose a task into small steps 6. To create a program that uses count-controlled loops to produce a given outcome	check whether a condition has been met 5. To design a physical project that includes selection 6. To create a program that controls a physical computing project	5. To use my design to create a project 6. To evaluate my project
Spring 2	Data and information – Grouping data	Data and information – Pictograms	Data and information – Branching databases	Data and information – Data logging	Data and information – Flat-file databases	Data and information – Introduction to spreadsheets
NC Objectives	<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 	<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 	<ul style="list-style-type: none"> Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content 	<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 	<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 	<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

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Component Knowledge	<ol style="list-style-type: none"> 1. To label objects 2. To identify that objects can be counted 3. To describe objects in different ways 4. To count objects with the same properties 5. To compare groups of objects 6. To answer questions about groups of objects 	<ol style="list-style-type: none"> 1. To recognise that we can count and compare objects using tally charts 2. To recognise that objects can be represented as pictures 3. To create a pictogram 4. To select objects by attribute and make comparisons 5. To recognise that people can be described by attributes 6. To explain that we can present information using a computer 	<ol style="list-style-type: none"> 1. To create questions with yes/no answers 2. To identify the attributes needed to collect data about an object 3. To create a branching database 4. To explain why it is helpful for a database to be well structured 5. To plan the structure of a branching database 6. To independently create an identification tool 	<ol style="list-style-type: none"> 1. To explain that data gathered over time can be used to answer questions 2. To use a digital device to collect data automatically 3. To explain that a data logger collects 'data points' from sensors over time 4. To recognise how a computer can help us analyse data 5. To identify the data needed to answer questions 6. To use data from sensors to answer questions 	<ol style="list-style-type: none"> 1. To use a form to record information 2. To compare paper and computer-based databases 3. To outline how you can answer questions by grouping and then sorting data 4. To explain that tools can be used to select specific data 5. To explain that computer programs can be used to compare data visually 6. To use a real-world database to answer questions 	<ol style="list-style-type: none"> 1. To create a data set in a spreadsheet 2. To build a data set in a spreadsheet 3. To explain that formulas can be used to produce calculated data 4. To apply formulas to data 5. To create a spreadsheet to plan an event 6. To choose suitable ways to present data
Summer 1	Creating media – Digital writing	Creating media – Digital music	Creating media – Desktop publishing	Creating media – Photo editing	Creating media – Introduction to vector graphics	Creating media – 3D Modelling
NC Objectives	<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<ul style="list-style-type: none"> • Use technology purposefully to create, organise, store, manipulate and retrieve digital content 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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

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	<ul style="list-style-type: none"> Recognise common uses of information technology beyond school 	<ul style="list-style-type: none"> Recognise common uses of information technology beyond school 	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	design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
Component Knowledge	<ol style="list-style-type: none"> To use a computer to write To add and remove text on a computer To identify that the look of text can be changed on a computer To make careful choices when changing text To explain why I used the tools that I chose To compare typing on a computer to writing on paper 	<ol style="list-style-type: none"> To say how music can make us feel To identify that there are patterns in music To experiment with sound using a computer To use a computer to create a musical pattern To create music for a purpose To review and refine our computer work 	<ol style="list-style-type: none"> To recognise how text and images convey information To recognise that text and layout can be edited To choose appropriate page settings To add content to a desktop publishing publication To consider how different layouts can suit different purposes To consider the benefits of desktop publishing 	<ol style="list-style-type: none"> To explain that the composition of digital images can be changed To explain that colours can be changed in digital images To explain how cloning can be used in photo editing To explain that images can be combined To combine images for a purpose To evaluate how changes can improve an image 	<ol style="list-style-type: none"> To identify that drawing tools can be used to produce different outcomes To create a vector drawing by combining shapes To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with To apply what I have learned about vector drawings 	<ol style="list-style-type: none"> To recognise that you can work in three dimensions on a computer To identify that digital 3D objects can be modified To recognise that objects can be combined in a 3D model To create a 3D model for a given purpose To plan my own 3D model To create my own digital 3D model

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Summer 2	Programming B - Programming animations	Programming B – Programming quizzes	Programming B – Events and actions in program	Programming B – Repetition in games	Programming B – Selection in quizzes	Programming B – Sensing movement
						Using the micro:bit for primary to secondary transition
NC Objectives	<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 	<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 	<ul style="list-style-type: none"> Use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs Use sequence, selection and repetition in programs; work with variables and various forms of input and output Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts 	<ul style="list-style-type: none"> Use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs Use sequence, selection and repetition in programs; work with variables and various forms of input and output Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing 	<ul style="list-style-type: none"> Use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs Use sequence, selection and repetition in programs; work with variables and various forms of input and output Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing 	<ul style="list-style-type: none"> Use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs Use sequence, selection and repetition in programs; work with variables and various forms of input and output Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

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				them into smaller parts	them into smaller parts	<ol style="list-style-type: none"> 1. To create a program to run on a controllable device 2. To explain that selection can control the flow of a program 3. To update a variable with a user input 4. To use a conditional statement to compare a variable to a value 5. To design a project that uses inputs and outputs on a controllable device 6. To develop a program to use inputs and outputs on a controllable device
Component Knowledge	<ol style="list-style-type: none"> 1. To choose a command for a given purpose 2. To show that a series of commands can be joined together 	<ol style="list-style-type: none"> 1. To explain that a sequence of commands has a start 2. To explain that a sequence of commands has an outcome 	<ol style="list-style-type: none"> 1. To explain how a sprite moves in an existing project 2. To create a program to move a sprite in four directions 	<ol style="list-style-type: none"> 1. To develop the use of count-controlled loops in a different programming environment 2. To explain that in programming 	<ol style="list-style-type: none"> 1. To explain how selection is used in computer programs 2. To relate that a conditional statement connects a 	<ul style="list-style-type: none"> • Use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms and programs

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	<ol style="list-style-type: none"> 3. To identify the effect of changing a value 4. To explain that each sprite has its own instructions 5. To design the parts of a project 6. To use my algorithm to create a program 	<ol style="list-style-type: none"> 3. To create a program using a given design 4. To change a given design 5. To create a program using my own design 6. To decide how my project can be improved 	<ol style="list-style-type: none"> 3. To adapt a program to a new context 4. To develop my program by adding features 5. To identify and fix bugs in a program 6. To design and create a maze-based challenge 	<p>there are infinite loops and count controlled loops</p> <ol style="list-style-type: none"> 3. To develop a design that includes two or more loops which run at the same time 4. To modify an infinite loop in a given program 5. To design a project that includes repetition 6. To create a project that includes repetition 	<p>condition to an outcome</p> <ol style="list-style-type: none"> 3. To explain how selection directs the flow of a program 4. To design a program which uses selection 5. To create a program which uses selection 6. To evaluate my program 	<ul style="list-style-type: none"> • Use sequence, selection and repetition in programs; work with variables and various forms of input and output • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts <hr/> <ol style="list-style-type: none"> 1. To understand how variables and inputs can be used on the micro:bit to create a sports counter To create an algorithm for a sport counter, and code, run and evaluate the use of the micro:bit to count activities 2. To create a countdown timer on
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						<p>the micro:bit using variables</p> <p>To evaluate the effectiveness of the LED display on the micro:bit when used as a timer</p> <p>To modify a program using true and false statements and an if...else command</p> <p>To create an activity completion using a micro:bit counter and a micro:bit timer</p>
Core Vocabulary	Autumn 1: Computing systems and networks	Autumn 2: Creating Media	Spring 1: Programming A	Spring 2: Data and Information	Summer 1: Creating Media	Summer 2: Programming B
Year 1	technology, computer, mouse, trackpad, keyboard, screen, double-click, typing	paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush style, brush size, pictures, painting, computers	Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program	object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same	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	ScratchJr, command, sprite, compare, programming, area, block, joining, start, run, program, background, delete, reset, algorithm, predict, effect, change, value, instructions, design
Year 2	Information technology (IT), computer, barcode, scanner/scan	device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light	instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat,	more than, less than, most, least, common, popular, organise, data, object, tally chart, votes, total, pictogram, enter,	music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create,	sequence, command, program, run, start, outcome, predict, blocks, design, actions, sprite, project, modify,

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		sources, flash, focus, background, editing, filter, format, framing, lighting	debugging, decomposition	data, compare, objects, count, explain, attribute, group, same, different, conclusion, block diagram, sharing	emotion, beat, instrument, open, edit	change, algorithm, build, match, compare, debug, features, evaluate, decomposition, code
Year 3	digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets	animation, flip book, stopframe, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition	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	attribute, value, questions, table, objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree	text, images, advantages, disadvantages, communicate, font, style, landscape, portrait, orientation, placeholder, template, layout, content, desktop publishing, copy, paste, purpose, benefits	motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions
Year 4	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	audio, microphone, speaker, headphones, input device, output device, sound, podcast, edit, trim, align, layer, import, record, playback, selection, load, save, export, MP3, evaluate, feedback	Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure	data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion	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	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

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The document below sets out the way in which the Computing curriculum will be covered at St Joseph's at St Gregory's Primary School. For information on EYFS please see the separate planning document.

Year 5	system, connection, digital, input, process, storage, output, search, search engine, refine, index, bot, ordering, links, algorithm, search engine optimisation (SEO), web crawler, content creator, selection, ranking	video, audio, camera, talking head, panning, close up, video camera, microphone, lens, mid-range, long shot, moving subject, side by side, angle (high, low, normal), static, zoom, pan, tilt, storyboard, filming, review, import, split, trim, clip, edit, reshoot, delete, reorder, export, evaluate, share	microcontroller, USB, components, connection, infinite loop, output component, motor, repetition, count-controlled loop, Crumble controller, switch, LED, Sparkle, crocodile clips, connect, battery box, program, condition, Input, output, selection, action, debug, circuit, power, cell, buzzer	database, data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation	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	Selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, task, design, input, implement, test, run, setup, operator
Year 6	communication, protocol, data, address, Internet Protocol (IP), 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	website, web page, browser, media, Hypertext Markup Language (HTML), 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	variable, change, name, value, set, design, event, algorithm, code, task, artwork, program, project, code, test, debug, improve, evaluate, share, assign, declare	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, comparison, software, tools	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	Micro:bit, MakeCode, input, process, output, flashing, USB, trace, selection, condition, if then else, variable, random, sensing, accelerometer, value, compass, direction, navigation, design, task, algorithm, step counter, plan, create, code, test, debug