



Springhill Catholic Primary School
Whole School Long Term Plan
Computing



Computing overview	Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
AUT 1	Little Computers Students will begin to learn how to use the computers in their settings and begin to understand what the different parts of a computer are, explain about peripherals and programs.	Technology around us Recognising technology in school and using it responsibly.	Technology around us Identifying IT and how its responsible use improves our world in school and beyond.	Connecting computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	The internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	Systems and searching Recognising IT systems in the world and how some can enable searching on the internet.	Communication and collaboration Exploring how data is transferred by working collaboratively online.
vocabulary	Simple Program, Peripherals, Operating System, Memory, Inputs, Outputs.	Base unit, click, computer, device, drag, desktop, double-click, file, full stop, iPad, input device, keyboard, laptop, mouse, monitor, responsibly, open, password, program, save, safely, screen, spacebar, text, technology, typing, trackpad.	Barcode, computer, devices, games console, handles, information technology (IT), memory stick, password, projector, release, resize safety, scan, scanner, social media, USB.	Connection, digital device, digital, input, network cables, network sockets, network switch, network, non-digital, output, process, program, server, wireless access point (WAP).	Accurate, adverts, content, download, files, Information, internet, links, network, network security, network switch, ownership, permission, router, routing, server, sharing, use, web address router, web browser, web page, website, Wireless Access	Algorithm, connection, content creator, crawler, digital, index, input, links, ordering, output, process, ranking, refine, search, search engine, search engine optimisation (SEO), selection, system, web crawler.	Address, chat, communication, data payload, data, address, digital footprint, domain Name Server (DNS), explore, header, internet, Internet Protocol (IP), one-to-many, one-to-one, one-way, packet, private, protocol, public, slide deck, two-way.
AUT 2	Junior Explorers Introducing students to the fact that technology works through a sequence of instructions.	Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Digital photography Capturing and changing digital photographs for different purposes.	Stop-frame Animation Capturing and editing digital still images to produce a stop-frame animation that tells a story.	Audio production Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Video production Planning, capturing, and editing video to produce a short film.	Webpage creation Designing and creating webpages, considering copyright, aesthetics, and navigation.
vocabulary	Control, Directional language, Sequencing, Simple Program.	Brush style, colour, computers, erase, fill tool, fill line tool, paint program, paintbrush, painting, pictures, shape tools, tool, undo.	Adjustments, alter, background, clone, combine, composite, copy, crop, cut, digital, edit, effects, font, foreground, hue, Image, made up, paste, retouch, rotate, saturation, save, select, sepia, undo, vignette, zoom.	Animation, animation, character, consistency, delete, evaluation, events, flipbook, frame, frame, import, media, onion skinning, sequence, setting, stop frame, transition.	Align, audio, edit, export, headphones, import, input device, layer, load, microphone, MP3, output device, playback, podcast, record, save, selection, sound, speaker, trim.	Audio, camera, clip, close, delete, edit, evaluate, export, filming, high angle, import, lens, long shot, low angle, microphone, mid-range, moving subject, normal angle, pan, panning, reorder, reshoot, share, side by side, split, static camera, talking head, trim, video camera, video, zoom	Breadcrumb troll, browser, copyright, device, embed, evaluate, external, Google Sites, header, homepage, hyperlink, Hypertext Mark-up Language (HTML), layout, link, logo, media, navigate, preview, purpose, subpage, web page, website.
SPR 1	A is for Algorithm Students are introduced to computational ways of thinking without using computers.	Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes.	Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions.	Sequencing sounds Creating sequences in a block-based programming language to make music.	Repetition in shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.	Selection in Physical computing Exploring conditions and selection using a programmable microcontroller.	Variables in games Exploring variables when designing and coding a game.
vocabulary	Algorithm, Sequencing.	Algorithm, backwards, Bee-bots, clear, commands, directions, forwards, go, instructions, left, plan, program, right, robot, route, turn.	Algorithm, backwards, clear, debugging, decomposition, fixing, forwards, go, Instruction, left, mat, order, prediction, program, programmers, right, route, sequence, turn, unambiguous.	Algorithm, backdrop, blocks, bug, chord, code, code, commands, costume, debug, design, event, glide, go to, motion, note, order, point in direction, programming blocks, programming, run the code, Scratch, sequence, sprite, stage, task, turn.	Code snippet, commands, count-controlled loop, debug, decompose, design, logo, pattern, procedure, program, repeat, repetition, trace, turtle, value.	Action, components, condition, connect, connection, controller, count-controller, crocodile clips, crumble, debug, infinite, input, LED, loop, microcontroller, motor, output, repetition, selection, sparkle, switch.	Algorithm, change, code, debug, design, evaluate, event, improve, name, output, program, project, set, share, test, value, variable.
SPR 2	Art Attack Students will experiment with drawing apps and software. Students will be introduced to different styles of digital art.	Grouping data Exploring object labels, then using them to sort and group objects by properties.	Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer.	Branching databases Building and using branching databases to group objects using yes/no questions.	Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	Flat-file databases Using a database to order data and create charts to answer questions.	
vocabulary	Artist, application, paint, tablet, swipe, undo, redo, lock.	Colour, data, fewest, group, image, label, least, less, more,	Attribute, block diagram, compare, conclusion, count, data, explain, least common,	Attribute, branching databases, compare, database, decision tree, equal, even, information,	Analyse, collection, conclusion, data logger, data point, data set, data, export, import, input	Axis, chart, compare, criteria, data, database, field, filter, graph, group, information,	



Springhill Catholic Primary School
Whole School Long Term Plan
Computing



		most, object, property, same, search, shape, size, value.	least popular, least, less than, more common, more than, most popular, most, object, organise, sharing, tally chart.	objects, order, organise, questions, selecting, separate, structure, table, value.	device, interval, layout, logged, logging, review, sensor, table.	order, presentation, record, search, sort, value.	
SUM 1	Fantastic Tales Children will re-tell a popular story using photos and puppets to create a digital version on a tablet.	Digital writing Using a computer to create and format text, before comparing to writing non- digitally.	Digital music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Desktop publishing Creating documents by modifying text, images, and page layouts for a specified purpose.	Photo editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	Introduction to vector graphics Creating images in a drawing program by using layers and groups of objects.	
vocabulary	Animation, interpretation,	Backspace, bold, capital letters, compare, font, format, italic, keyboard, keys, letters, letters, Microsoft Word, mouse, numbers, redo, select, space, text cursor, toolbar, toolbar, type, underline, undo, word processor.	Algorithm, backdrop, blocks, bug, chord, code, code, commands, costume, debug, design, event, glide, go to, motion, note, order, point in direction, programming blocks, programming, run the code, Scratch, sequence, sprite, stage, task, turn.	Advantages, benefits, communicate, content, copy, desktop publishing, disadvantages, font style, font, images, landscape, layout, layout, orientation, paste, placeholder, portrait, purpose, template, template, Text.	Adjustments, alter, background, clone, combine, composite, copy, crop, cut, digital, edit, effects, font, foreground, hue, Image, made up, paste, retouch, rotate, saturation, save, select, sepia, undo, vignette, zoom.	Align, colour, copy, duplicate, group, layers, modify, move, object, order, paste, reflection, resize, reuse, rotate, select, toolbar, tools, ungroup, vector drawing, zoom.	
SUM 2	Let's Go! Children begin exploring the ICT suite. They start learning to touch type, use the mouse, and navigate the interface of a desktop PC.	Programming animations Designing and programming the movement of a character on screen to tell stories.	Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.	Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions.	Repetition in games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.	Selection in Quizzes Exploring selection in programming to design and code an interactive quiz.	Sensing movement Designing and coding a project that captures inputs from a physical device. 3D modelling Planning, developing, and evaluating 3D computer models of physical objects. Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data.
Vocabulary	Desktop, keyboard, mouse, screen, home row.	Algorithm, appropriate, background, Bee-Bot, block, change, command, compare, delete, effect, instruction, joining, predict, program, programming area, programming blocks, programming, reset, run, Scratch Jn, sprite, start block, value.	Actions, algorithm, blocks, build, change, command, compare, debug, design, evaluate, features, match, modify, outcome, predict, program, project, run, Sequence, sprite, start.	Action, algorithm, code, debugging, design, errors, event, extension block, logic, motion, move, pen up, pen, resize, set up, sprite, test.	Algorithm, animate, block, code, costume, count-controlled loop, debug, design, duplicate, evaluate, event block, forever, infinite loop, loop, modify, programming, refine, repeat, repetition, Scratch, sprite, value.	Algorithm, answers, condition, conditional statement, count-control loop, debug, design, false, implement, input, outcomes, program, questions, run, selection, task, test, true.	Spreadsheets Ascending, calculation, calculate, cell reference, cells, chart, collecting, columns, data, descending, Excel, formula, graph, input, labels, operation, output, results, rows, sigma, spreadsheet, structure, table, total. 3D Modelling 2D, 3D, combine, construct, cylinder, duplicate, evaluate, group, handle, hollow, lift, lower, modify, move, perspective, placeholder, recolour, resize, rotate, select, shapes, view. Sensing Spreadsheets Ascending, calculation, calculate, cell reference, cells, chart, collecting, columns, data, descending, Excel, formula,



Springhill Catholic Primary School
Whole School Long Term Plan
Computing



							graph, input, labels, operation, output, results, rows, sigma, spreadsheet, structure, table, total. 3D Modelling 2D, 3D, combine, construct, cylinder, duplicate, evaluate, group, handle, hollow, lift, lower, modify, move, perspective, placeholder, recolour, resize, rotate, select, shapes, view.
--	--	--	--	--	--	--	--