Pearl Class (EYFS)						
Term 1 Computational Thinking	Term 2 Computational Thinking	Term 3 Computational Thinking	Term 4 Computational Thinking	Term 5 Computational Thinking	Term 6 Computational Thinking	
Awesome Autumn	Super Space	Springtime	Boats Ahoy	Summer Fun	Busy Bodies	
Pattern, repeating pattern, same, different, fix, in front of, behind, first, then	Solving a problem, algorithm, sequence, debug, test, check, fix, pattern	Solving a problem, solution, test, debug, improve, algorithm, position, direction, grid	Algorithm, debug	Object, group, pictogram, collect, organise, pattern, compare, debug, check, fix, test	First, next, last, sequence, algorithm, debug, fix, improve	

Ruby Class (Year 1 & 2) — Cycle A						
Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	
Computing systems and networks	Computing systems and networks	Creating Media	Creating Media	Programming	Programming	
Technology Around Us	Information Technology Around Us	Digital Painting	Digital Photography	Moving a Robot	Robot Algorithms	
<u>Lesson 1</u> Technology	<u>Lesson 1</u> Technology	<u>Lesson 1</u> Paint program, tool, paintbrush, erase, fill, undo	<u>Lesson 1</u> Device, camera, photograph, capture, image, digital	<u>Lesson 1</u> Forwards, backwards, turn, clear, go, commands	<u>Lesson 1</u> Instruction, sequence, clear, unambiguous, algorithm, program	
<u>Lesson 2</u> Computer, mouse/trackpad, keyboard, screen, click, drag	<u>Lesson 2</u> Computer, mouse/trackpad, keyboard, screen, click, drag	<u>Lesson 2</u> Piet Mondrian, primary colours, shape tools, line tool, fill tool, undo tool	<u>Lesson 2</u> Landscape, portrait	<u>Lesson 2</u> Instructions, directions	<u>Lesson 2</u> Sequence, order, algorithm, commands	
<u>Lesson 3</u> Computer mouse/trackpad, draw, click, double-click, click and drag	<u>Lesson 3</u> Computer mouse/trackpad, draw, click, double-click, click and drag	<u>Lesson 3</u> Henri Matisse, shape tool, fill tool	<u>Lesson 3</u> Framing, subject, compose	<u>Lesson 3</u> Forwards, backwards, commands	<u>Lesson 3</u> Sequence, prediction, program	
<u>Lesson 4</u> Input device, computer, keyboard, mouse	<u>Lesson 4</u> Input device, computer, keyboard, mouse	<u>Lesson 4</u> Wassily Kandinsky, tools, feelings, colour, brush style	<u>Lesson 4</u> Light sources, flash, focus, background	<u>Lesson 4</u> Left, right, turn, commands	<u>Lesson 4</u> Artwork, design, route, mat	
<u>Lesson 5</u> Shift, space bar, capital letter, full stop	<u>Lesson 5</u> Shift, space bar <u>,</u> capital letter, full stop	<u>Lesson 5</u> Georges Seurat, Pointillism, brush size	<u>Lesson 5</u> Editing, filter	<u>Lesson 5</u> Plan, algorithm, program	<u>Lesson 5</u> Algorithm	
<u>Lesson 6</u> Safely, responsibly, computer, technology	<u>Lesson 6</u> Safely, responsibly, computer, technology	<u>Lesson 6</u> Pictures, painting, computers, like, prefer, dislike	<u>Lesson 6</u> Format, framing, lighting, focus, filter	<u>Lesson 6</u> Route, plan, program	<u>Lesson 6</u> Debugging, algorithm, program	

Ruby Class (Year 1 & 2) – Cycle B						
Term 1 Data and Information	Term 2 Data and Information	Term 3 <i>Creating Media</i>	Term 4 <i>Creating Media</i>	Term 5 <i>Programming</i>	Term 6 <i>Programming</i>	
Grouping Data	Pictograms	Digital Writing	Digital Music	Programming Animation	Programming Quizzes	
<u>Lesson 1</u> Object, label, group, search, image	<u>Lesson 1</u> More than, less than, most, least, organise, data, object, tally chart, votes, total	<u>Lesson 1</u> Word processor, keyboard, keys, letters, Microsoft Word, Google Docs	<u>Lesson 1</u> Music, planets, Mars, Venus, war, peace, quiet, loud, feelings, emotions	<u>Lesson 1</u> ScratchJr, Bee-Bot, command, sprite, compare, programming, programming area	<u>Lesson 1</u> Sequence, command, program, run, start	
Lesson 2 Group, object, label, image	<u>Lesson 2</u> Pictogram, enter, data, tally chart, compare, more than, less than, objects, count	<u>Lesson 2</u> Word processor, keyboard, keys, letters, numbers, space, backspace, text cursor, Microsoft Word, Google Docs	<u>Lesson 2</u> Pattern, rhythm, pulse	<u>Lesson 2</u> Block, joining, run, command, start, block, program, delete, programming area, background, reset, algorithm, predict	<u>Lesson 2</u> Sequence, command, outcome, predict, program, blocks	
Lesson 3 Group, object, property, label, colour, size, shape	<u>Lesson 3</u> Tally chart, data, pictogram, explain, more, less, most, least, more common, least common	<u>Lesson 3</u> Word processor, keys, keyboard, capital letters, toolbar, bold, italic, underline, Microsoft Word, Google Docs	<u>Lesson 3</u> Neptune, pitch, tempo, rhythm, notes	<u>Lesson 3</u> Effect, change, value, block	<u>Lesson 3</u> Sprite, algorithm, blocks, design, sequence, predict	
<u>Lesson 4</u> Group, object, property, value, label, colour, data set	<u>Lesson 4</u> Attribute, group, same, different, object, more than/less than, most/least	<u>Lesson 4</u> Word processor, keyboard, mouse, cursor, select, font, toolbar, bold, italic, underline, Microsoft Word, Google Docs	<u>Lesson 4</u> Pattern, notes, instrument, tempo	<u>Lesson 4</u> Instructions, sprite, delete, program, algorithm	<u>Lesson 4</u> Actions, sprite, project, blocks, design, sequence, modify, change	
<u>Lesson 5</u> Group, object, size, property, value, label, colour, shape, more, less, most, fewest	<u>Lesson 5</u> Attribute, compare, tally chart, pictogram, more than, less than, most popular, least popular, conclusion	<u>Lesson 5</u> Word processor, keyboard, keys, cursor, undo, font, toolbar, bold, italic, underline, Microsoft Word, Google Docs	<u>Lesson 5</u> Create, emotion, pitch, pulse/beat, tempo, instrument, rhythm, notes	<u>Lesson 5</u> Sprite, background, appropriate, algorithm	<u>Lesson 5</u> Design, algorithm, build, sequence, blocks, match	

G	<u>Lesson 6</u> iroup, object, property,	<u>Lesson 6</u> Tally chart, pictogram,	<u>Lesson 6</u> Word processor, keyboard,	<u>Lesson 6</u> Open, edit	<u>Lesson 6</u> Sprite, design,	<u>Lesson 6</u> Compare, design,
vo	alue, label, colour, data	block diagram, most,	keys, undo, backspace,	open, cuit	programming blocks,	debug, program,
set	, more, less, most, least, fewest, the same	least, common, sharing, data	toolbar, bold, italic, underline, Microsoft Word,		algorithm, programs	features, evaluate
	· ·		Google Docs			

Sapphire Class (Year 3 & 4) – Cycle A						
Term 1 Computing systems and networks	Term 2 Computing systems and networks	Term 3 <i>Creating Media</i>	Term 4 Creating Media	Term 5 <i>Programming</i>	Term 6 <i>Programming</i>	
Connecting Computers	The Internet	Stop-frame Animation	Audio Production	Sequencing Sounds	Repetition in Shapes	
Lesson 1 Digital device, input, output, process	<u>Lesson 1</u> Internet, network, router, network security	<u>Lesson 1</u> Animation, flip book	<u>Lesson 1</u> Audio, record, playback, microphone, speaker, headphones, input, output	<u>Lesson 1</u> Scratch, blocks, programming, commands, code, sprite, costume, stage, backdrop	<u>Lesson 1</u> Program, turtle, commands, code	
<u>Lesson 2</u> Digital device, input, output, process	<u>Lesson 2</u> Network switch, server, wireless access point (WAP), router	<u>Lesson 2</u> Stop-frame animation, frame, sequence, image, photograph	<u>Lesson 2</u> Audio, sound, record, playback, start, pause, stop, podcast	<u>Lesson 2</u> Sprites, programming blocks, motion, turn, point in direction, go to, glide	<u>Lesson 2</u> Algorithm, design, debug, logo commands	
<u>Lesson 3</u> Program	<u>Lesson 3</u> Website, web page, web address, router, routing, route tracing, browser	<u>Lesson 3</u> Setting, character, events, stop-frame animation, onion skinning	<u>Lesson 3</u> Audio, sound, record, playback, start, pause, stop, podcast, save, file	<u>Lesson 3</u> Sequence, event, task, design, code, run the code	<u>Lesson 3</u> Sequence, event, task, design, code, run the code	
<u>Lesson 4</u> Connection, network, network switch	<u>Lesson 4</u> World Wide Web, internet, content, website, web page, links, files	<u>Lesson 4</u> Stop-frame animation, onion skinning, consistency	Lesson 4 Audio, sound, record, playback, edit, selection, open, save, file	<u>Lesson 4</u> Sequence, order, note, chord	<u>Lesson 4</u> Pattern, repeat, repetition, count- controlled loop, algorithm, value	
Lesson 5 Network switch, server, wireless access point (WAP)	<u>Lesson 5</u> Website, use, content, download, sharing, ownership, permission	<u>Lesson 5</u> Evaluation, animation, onion skinning, delete, frame	<u>Lesson 5</u> Audio, sound, edit, selection, open, save, mixing, time shift	<u>Lesson 5</u> Sprite, stage, costume, backdrop	<u>Lesson 5</u> Repeat, count- controlled loop, decompose, procedure	
Lesson 6 Network switch, server, wireless access point (WAP)	<u>Lesson 6</u> Information, sharing, accurate, honest, content, adverts	<u>Lesson 6</u> Animation, media, import, transition	<u>Lesson 6</u> Export, MP3, audio, editing, evaluate, feedback	<u>Lesson 6</u> Design, algorithm, bug, debug	<u>Lesson 6</u> Count-controlled loop, procedure, debug, program	

Sapphire Class (Year 3 & 4) – Cycle B						
Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	
Data and Information	Data and Information	Creating Media	Creating Media	Programming	Programming	
Branching Databases	Data Logging	Desktop Publishing	Photo Editing	Events and Actions in Programs	Repetition in Games	
<u>Lesson 1</u> Attribute, value, questions, table, objects	<u>Lesson 1</u> Data, table (layout)	<u>Lesson 1</u> Text, images, advantages, disadvantages, communicate	<u>Lesson 1</u> Image, edit, arrange, select, digital, crop, undo, save	<u>Lesson 1</u> Motion, event, sprite, algorithm, logic	<u>Lesson 1</u> Scratch, code, loop, programming, sprite, blocks, repeat, value	
<u>Lesson 2</u> Branching database, database, attribute, value, questions, objects, equal, even, separate	<u>Lesson 2</u> Input device, sensor, data logger	<u>Lesson 2</u> Font, font style, communicate, template	<u>Lesson 2</u> Image, search, save, copyright, composition, edit, save, pixels, crop, rotate, flip	<u>Lesson 2</u> Move, resize, algorithm	<u>Lesson 2</u> Block, repeat, forever, infinite loop, count- controlled loop, costume	
<u>Lesson 3</u> Branching database, database, attribute, value, questions, objects	<u>Lesson 3</u> Data logger, logging, data point, interval	<u>Lesson 3</u> Landscape, portrait, orientation, placeholder, template, layout, content	<u>Lesson 3</u> Image, adjustments, effects, colours, hue/saturation, sepia, save, version, illustrator, vignette	<u>Lesson 3</u> Extension block, pen up, set up	Lesson 3 Repetition, forever, infinite loop, count- controlled loop, animate, costume, event block, duplicate	
<u>Lesson 4</u> Branching database, attribute, questions, structure, compare, order, organise	<u>Lesson 4</u> Analyse, data set, import, export	<u>Lesson 4</u> Desktop publishing, copy, paste	<u>Lesson 4</u> Image, edit, retouch, clone, recolour, magic wand, select, adjust, sharpen, brighten	<u>Lesson 4</u> Pen, design, event, action, algorithm	<u>Lesson 4</u> Block, repeat, forever, infinite loop, modify, design	
<u>Lesson 5</u> Branching database, attribute, value, question, j2data, selecting	<u>Lesson 5</u> Data, data logger, logged, collection	<u>Lesson 5</u> Layout, purpose	<u>Lesson 5</u> Image, fake, real, cut, composite, copy, paste, alter, background, foreground	<u>Lesson 5</u> Debugging, errors, setup	<u>Lesson 5</u> Infinite loop, count- controlled loop, repetition, design, sprite, algorithm	
<u>Lesson 6</u> Branching database, attribute, value, questions, j2data, pictogram, compare, information, decision tree	<u>Lesson 6</u> Analyse, review, conclusion	<u>Lesson 6</u> Desktop publishing, benefits	<u>Lesson 6</u> Image, publication, elements, original, font style, shapes, border, layer	<u>Lesson 6</u> Design, code, setup, test, debug, actions, events	<u>Lesson 6</u> Repetition, design, algorithm, duplicate, debug, refine, evaluate	

Emerald Class (Year 5 & 6) — Cycle A						
Term 1 Computing systems and networks	Term 2 Computing systems and networks	Term 3 <i>Creating Media</i>	Term 4 <i>Creating Media</i>	Term 5 <i>Programming</i>	Term 6 <i>Programming</i>	
Systems and Searching	Communication and Collaboration	Video Production	Web Page Creation	Selection in Quizzes	Variables in Games	
<u>Lesson 1</u> System, connection, digital, input, process, output	<u>Lesson 1</u> Search, search engine, Google, Bing, Yahoo!, Swisscows, DuckDuckGo, refine	<u>Lesson 1</u> Video, audio, recording, storyboard, script, soundtrack, dialogue	<u>Lesson 1</u> Website, web page, browser, media, Hypertext Markup Language (HTML)	<u>Lesson 1</u> Selection, condition, true, false, count-controlled loop	<u>Lesson 1</u> Variable, change, name, value	
<u>Lesson 2</u> System, connection, digital, input, process, output	<u>Lesson 2</u> Index, crawler, bot, search engine	<u>Lesson 2</u> Video, audio, recording, capture, zoom, storage, digital, tape	<u>Lesson 2</u> Web page, website, logo, layout, header, media, purpose	Lesson 2 Selection, condition, true, false, outcomes, debug, conditional statement (the linking together of a condition and outcomes), algorithm, program	<u>Lesson 2</u> Variable, name, value, set, change	
<u>Lesson 3</u> Protocol, address, packet	<u>Lesson 3</u> Ranking, search engine, search engine optimisation, links, web crawlers	<u>Lesson 3</u> Video, audio, AV (audio- visual), recording, save, videographer Video techniques: Zoom, pan, tilt, angle	<u>Lesson 3</u> Copyright, fair use	<u>Lesson 3</u> Selection, condition, true, false, outcomes, question, answer, algorithm, program, debug	<u>Lesson 3</u> Variable, set, change, design, event	
<u>Lesson 4</u> Chat, explore, slide deck	<u>Lesson 4</u> Searching, search engine, web crawler, content creator, selection, ranking	<u>Lesson 4</u> Video, lighting, setting, YouTuber, content, light, audio/sound, camera angle, colour	<u>Lesson 4</u> Web page, home page, preview, evaluate, device, Google Sites	<u>Lesson 4</u> Task, design, algorithm, input, program, selection, condition, outcomes	<u>Lesson 4</u> Design, algorithm, code	
<u>Lesson 5</u> Chat, explore	<u>Lesson 5</u> Communication, internet	Lesson 5 Export, computer, Microsoft Movie Maker, split, trim/clip, edit, titles, end credits, timeline, transitions, audio, soundtrack, content, retake/reshoot (choose agreed language)	<u>Lesson 5</u> Website, web page, breadcrumb trail, navigation, hyperlink, subpage (choose agreed language)	<u>Lesson 5</u> Implement, design, algorithm, program, selection, condition, outcome, test, run	<u>Lesson 5</u> Task, algorithm, design, artwork, program, project, code, test, debug	

<u>Lesson 6</u> Reuse, remix, collaboration	<u>Lesson 6</u> Communication, public, private, one-way, two-way, one-to-one, one-to-many, SMS, email, WhatsApp, blog, YouTube, Twitter, BBC Newsround	<u>Lesson 6</u> Video, special effects, title screen, end credits, export, constructive feedback	<u>Lesson 6</u> Hyperlink, evaluate, website, web page, implication, external link, embed	<u>Lesson 6</u> Implement, design, algorithm, program, debug, test, setup, selection, condition, outcome, share, evaluate, constructive	<u>Lesson 6</u> Improve, evaluate, share
		Emerald Class (Year	5 & 6) – Cycle B		
Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Data and Information	Data and Information	Creating Media	Creating Media	Programming	Programming
Flat-File Databases	Introduction to Spreadsheets	Introduction to Vector Graphics	3D Modelling	Selection in Physical Computing	Sensing Movement
<u>Lesson 1</u> Spreadsheet, data, data heading, data set, cells, columns and rows.	<u>Lesson 1</u> Spreadsheet, data, data heading, data set, cells, columns and rows	<u>Lesson 1</u> Vector, drawing tools, shapes, object, icons, toolbar	Lesson 1 2D, 3D, 3D object, 3D space, view	<u>Lesson 1</u> Microcontroller, Crumble controller, components, LED, Sparkle, crocodile clips, connect, battery box, program, repetition, infinite loop	<u>Lesson 1</u> Micro:bit, MakeCode, input, process, output, flashing, USB
<u>Lesson 2</u> Data, data item, data set, object, spreadsheet application, format, common attribute	<u>Lesson 2</u> Data, data item, data set, object, format, spreadsheet application, common attribute	<u>Lesson 2</u> Vector drawing, object, move, resize, colour, rotate, duplicate/copy	<u>Lesson 2</u> 2D, 3D, 3D object, 3D space, resize, colour, lift	Lesson 2 Microcontroller, Crumble controller, output devices, motor, LED, Sparkle, crocodile clips, connect, battery box, program, repetition, count-controlled loop	<u>Lesson 2</u> Selection, condition, if then else, variable, random
<u>Lesson 3</u> Formula, calculation, data, spreadsheet, input, output. cells, cell reference	<u>Lesson 3</u> Formula, calculation, data, spreadsheet, input, output. cells, cell reference	<u>Lesson 3</u> Organise, zoom, select, rotate, object, alignment grid, resize, handles, consistency, modify	<u>Lesson 3</u> Rotate, position, select, duplicate	<u>Lesson 3</u> Microcontroller, Crumble controller, components, switch, motor, LED, Sparkle, crocodile clips, connect, battery box, program, condition, true, false, input	<u>Lesson 3</u> Input, selection, condition, variable, sensing, accelerometer
Lesson 4	<u>Lesson 4</u>	<u>Lesson 4</u> Layers, object, front, back, order	<u>Lesson 4</u> Dimensions, placeholder, hole, group, ungroup	Lesson 4	<u>Lesson 4</u> Compass, direction, variable, navigation

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Data, calculate,	Data, calculate, operation,			Microcontroller, output	
operation, formula, cell,	formula, cell, range, duplicate,			devices, selection,	
range, duplicate, sigma	sigma			condition, action	
Lesson 5	Lesson 5	<u>Lesson 5</u>	<u>Lesson 5</u>	<u>Lesson 5</u>	<u>Lesson 5</u>
Propose, question, data	Propose, question, data set,	Copy, paste, group,	Resize, group, ungroup,	Task, design, selection,	Micro:bit, design, task,
set, data, organised,	data, organised, formula	ungroup, duplicate, object,	design	repetition, condition,	algorithm, variable,
formula		vector drawing, reuse	_	action, microcontroller,	step counter
-				Crumble controller,	
				output devices, motor,	
				LED, Sparkle, switch,	
				crocodile clips, battery	
				box	
Lesson 6	Lesson 6	Lesson 6	Lesson 6	<u>Lesson 6</u>	Lesson 6
Graph, chart, evaluate,	Graph, chart, evaluate, results,	Improvement, evaluate,	Modify, evaluate, improve	Task, design, selection,	Plan, create, code, test,
results, comparison,	comparison, questions,	alternatives, vector		repetition, condition,	debug
questions, software,	software, tools, data	drawing		action, microcontroller,	_
tools, data	• · · · ·	-		Crumble controller,	
, , , , , , , , , , , , , , , , , , ,				output devices, motor,	
				LED, Sparkle, switch,	
				algorithm, program,	
				debug, evaluate	