	Y1: Technology around us	Y2: IT Around Us	Y3: Connecting computers	Y4: The Internet	Y5: Systems and searching	Y6: Communication and collaboration
Computing systems and networks	To name 3 types of technology (computer, iPad, traffic lights, laptop, heating system). • To locate the on switch of a desktop PC. • To know that the shift key creates a capital letter.	To know that if something online is upsetting, it needs to be reported to an adult. • To name examples of how I.T helps improve our world e.g. traffic lights and how they keep us safe on the road.	To identify at least 2 networked devices around them (Network switch, server, wireless access point- see knowledge organiser). • To be able to explain that different devices have different purposes. (smartboard for teaching, iPad for researching)	To know that websites and their contents are created by people. • To know that information found online is not necessarily honest, accurate or legal. • To know what a URL address is and how to access a website.	Can describe that a computer system uses an input, process and an output. • I can explain that different media, files and information can be shared on the internet either privately or publicly. • Can explain how the internet enables effective collaboration.	Can explain that search results are ordered. • Can name a variety of ways of communicating over the internet (email, social media post, comment field, blog, vlog etc).
Vocabulary	Technology Computer, keyboard, screen, click, drag, Shift, space bar, Safely, Responsibly	Information technology (IT), computer, barcode, scan.	Digital device, input, output, process, program, connection, network.	network, router, network security, network switch, Server, wireless access point (WAP), browser, World Wide Web, content, links, files, download, sharing, ownership, permission, information	system, connection, digital, input, process, output, protocol, address, chat, I.P address, collaboration.	Search engine, refine, index, web crawler, ranking, links, searching, selection, communication, public, private, SMS, Blog, World Wide Web.

	Y1: Digital writing	Y2: Making music	Y3: Desktop Publishing	Y4: Photo editing	Y5: Vector drawing	Y6: 3D Modelling
Creative media	To know that the space key makes a space and backspace deletes text. • To know that where the font and size icons are and what they change font style and make it bigger or smaller.	Explain how we can present information using a computer. •To show how music is made from a series of notes.	To explain the difference between text and images. • To be able to demonstrate how to change font size and colour on a desktop computer (through Word and Publisher).	To be able to explain the uses for gathered data. • To be able to explain the different ways that data may be gathered.	To know that vector drawing has different layers/shapes. Know drawing tools can be used to produce different outcomes.	Can name the 3D shapes needed to create a model of a real-world object. • Can explain why we might represent 3D objects on a computer.
Vocabulary	Word processor, keys, numbers, space, backspace, text, shift, cursor, toolbar, bold, italic, underline, select, font.	Music, quiet, loud, feelings, emotions, pattern, rhythm, pulse/beat, pitch, tempo, notes, instrument, create, open, edit.	Text, images, font style, template, orientation, placeholder, desktop publishing, copy, paste, layout, purpose.		Vector, drawing tools, icons, toolbar, vector drawing, move, resize, rotate, duplicate/copy, organise, zoom, select, alignment grid, handles, consistency, modify, layers, object, paste, group, ungroup, reuse, improvement, alternatives.	Modelling, Three-dimensional, Workspace, Faces, Vertices, Edges, Handles resize, position, hole, design, modify.

	Y1: Digital Painting	Y2: Digital Photography	Y3: Stop frame animation	Y4: Audio Editing	Y5: Video production	Y6: Web page creation
Creating media	Digital Painting: To know the icons for the shape and line tools to draw a picture. • To explain how to change the colour and size of the paintbrush.	To be able to add text and an image. • To be able to save and retrieve work. • To be able to use the scroll bar on webpages	To be able to explain that an animation is a sequence of pictures or images. • To be able to name a program used to make stop frame animation (e.g. iMotion).	I can identify the uses for recorded audio (music, podcasts etc.). • To explain the ways that audio can be recorded and how to make it of high quality.	Can recognise videos are moving images which may include sound • Can name digital devices that can record video. • Can identify what makes an effective/appealing video.	• Can define what is meant by the terms 'copyright' and 'fair use'. • Can describe how pages of a website are linked together (through the use of hyperlinks).
Vocabulary	tool, erase, fill, undo primary colours, shape tools, line tool, brush style, Pointillism, brush size.	Device, capture, image, digital, landscape (horizontal), portrait (vertical), field of view, narrow, wide, format, framing, focal point, subject matter, compose, natural lighting, artificial lighting, flash, focus, background, foreground editing, tools, filter, changed, real.	Animation, flip book, stop-frame animation, frame, sequence, image, photograph, setting, character, events, onion skinning, media, import, transition.	Audio, record, playback, input, output, sound, podcast, selection, mixing, time shift, Export, Sound file.	Video, audio, recording, storyboard, script, soundtrack, dialogue, capture, zoom, AV (audio-visual), Videographer, Video techniques: Zoom, pan, tilt, angle, lighting, setting, export, split, trim/clip, titles, timeline, transitions, content, retake, special effects, title screen,	Website, web page, browser, media, Hypertext Markup language (HTML), logo, layout, header, Purpose, copyright, home page, preview, navigation, subpage, external link, embed

	Y1: Moving a robot	Y2: Robot Algorithms	Y3: Sequencing Sounds	Y4: Repetition in shapes	Y5: Selection in Physical Computing (microcontroller – Crumble)	Y6: Variables in games
Programming A	To know the 4 commands for the Beebot in a sequence including forwards/backwards. To know when and how to debug programs.	To write a programme for the Beebot using the 4 commands in a sequence including forwards/backwards/left turn/right turn. • To know when and how to debug programs. • To know a series of instructions (usually on a computer) is called an Algorithm.	To explain what a sprite is. • I can identify sprites and backgrounds in the Scratch program.	To be able to identify patterns of repetition in real life. • To explain how to use the repeat block in Scratch/		Can define a 'variable' as something that is changeable. • Can explain why a variable is used in a program.
Vocabulary	Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, plan, algorithm, program, route.	Instruction, sequence, clear, order, commands, prediction, design, route, debugging	Scratch, programming, blocks, code, sprite, costume, stage, backdrop, motion, point in direction, go to, event, task, run the code, order, note, chord, bug.	Commands, code snippet, pattern, repeat, repetition, value, trace, decompose, procedure.		Variable, change, name, value, set, design, event, code, task, test, motion, callout.

	Y1: Programming animations	Y2: Introduction to quizzes	Y3: Events and Actions in Programs	Y4: Repetition in Games	Y5: Animals classification tool	Y6: Sensing movements
Programming B	To explain what a start block does in a program. • To name directional blocks which move a sprite	To be able to move the sprite and manipulate the controls by setting conditions e.g. jump high. • To change the background on Scratch. • To create 2 sprites and make a conversation happen between them. • To know how to save and retrieve projects. • To say 1 way a project can be improved.	I know that event blocks are yellow and movement blocks are the darker blue on Scratch.	I can explain the uses of repetition in programming and link this with the drawing of various shapes.	Can explain how selection is used in computer programs. • Explain how selection effects the flow of a program.	Can explain that some devices need to have sensors in order to help it make decisions about where to go and where to stop. Can explain that what a device senses can change or control the flow of a program.
Vocabulary	Command, sprite, compare, programming area, Block, joining, command, start block, run, background, delete, reset, predict, effect, change, value, instructions, design, programming blocks.	Start, outcome, predict, blocks, actions, change, build, match, compare, evaluate.	Motion, event, logic, Move, Resize, Extension block, Pen, Action, errors, test.	loop, repeat, value, forever, infinite, count-controlled loop, animate, event block, duplicate, modify/refine.	Selection, condition, true, false, count controlled loop, outcomes, conditional statement.	Programming If…then…else… variable Random Direction Navigation Motion Sensor Input Output Motor Alarm, signal

	Y1: Grouping Data	Y2: Pictograms	Y3: Branching databases	Y4: Data logging	Y5: Flat file database	Y6: Introduction to spreadsheets
Data and information	To name a group of objects using a label according to property (including size, shape or colour).	To understand use/read a tally chart. • To use a program to create a pictogram.	To give an example of an open-ended question and a yes/no question. To know that the objects in a branching database need to be split into similar sized groups.	To be able to explain the reasons why somebody may want to change the composition of an image. • I can give examples of positive and negative effects that editing an image may have.	Can explain that programs can be used to compare data. • Can explain how information can be grouped. • Can explain what a 'field' and 'record' is in a database.	Can explain that objects can be described using data. • Knows that a formula must start with an = sign. • Knows that data can be best represented in tables or graphs.
Vocabulary	object, label, group, search, image, property, colour, size, shape, value, data, more, less, most, fewest, least, the same.	Organise, tally chart, votes, total, pictogram, enter, compare, count, explain, attribute, difference, most/least popular, conclusion, block diagram.	Attribute, value, questions, table, objects, branching database, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree.	Input device, sensor, data logger, logging, data point, interval, analyse, data set, import, export, logged, collection, review, conclusion	database, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter	Spreadsheet, data heading, cells, columns and rows, data, format, common attribute, formula, calculation, cell reference, operation, range, graph, chart, evaluate, results, comparison.