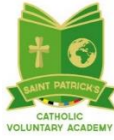
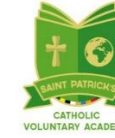


	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Programming	<ul style="list-style-type: none"> - Explore floor robots such as Bee-Bots 	<ul style="list-style-type: none"> - Enact a given word - Predict the outcome of a command on a device - List which commands can be used on a given device - Run a command on a floor robot - Select a command for a given purpose. - Select a series of words that can be enacted as a program - Select a series of commands that can be run as a program - Build a sequence of commands in steps - Combine commands in a program - Run a program on a device 	<ul style="list-style-type: none"> - Select a series of words that can be enacted as a sequence - Select a series of instructions that can be run as a program - Create a program - Trace a sequence to make a prediction - Run a program on a device - Create and debug a program that I have written - Explain what happens when we change the order of instructions - Test a prediction by running a sequence 	<ul style="list-style-type: none"> - Design, write and debug programs - Use logical reasoning to explain what will happen next - Solve problems by decomposing them into smaller parts. - Use and edit a program to achieve a specific outcome - Predict how a change in a sequence may impact on the outcome of a program - Use sequence, selection and repetition in programs and inputs and outputs - Explain what a variable is in programming - Use logical reasoning - 'Read' other's code and predict what will happen in a program which helps them to correct errors. - Understand computer networks including the internet - List a range of ways that the internet can be used to provide different methods of communication - Recognise the main component parts of hardware which allow computers to join and form a network 	<ul style="list-style-type: none"> - Design, write and debug programs - Identify an error within a program. - Debug their own programs. - Use sequence, selection and repetition in programs and inputs and outputs - Use timers to achieve repetition effects - Understand 'if' statements for selection and attempt to combine these with other coding structures including variables. - Understand how variables can be used to store information while a program is executing - Make user inputs and outputs such as 'print to screen'. - Use logical reasoning - Designs their programs to show that they are thinking of the structure of a program in logical, achievable steps. 	<ul style="list-style-type: none"> - Design, write and debug programs - Test and debug their programs as they go and use logical methods to identify the approximate cause of any bug - Apply knowledge of coding to create a game around a theme - Think about component parts and design these as components in a theme rather than individual parts - Consider aspects such as the movement of the characters and goal objects to increase playability - Using sequence, selection and repetition in programs and inputs and outputs - Combine sequence, selection and repetition with other code structures to achieve their algorithm design. - Use logical reasoning - Think about their code structure in terms of ability to debug and interpret the code later. 	<ul style="list-style-type: none"> - Design, write and debug programs - Evaluate the effectiveness of their programming and suggest improvement - Make good attempts to 'read' code and predict what will happen in a program - Test and debug their program as they go and can use logical method to identify the cause of any bugs - Use sequence, selection and repetition in programs and inputs and outputs - Code to show understanding of outputs such as sound and movement, inputs from the user of the program such as button clicks - Interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole. - Understand computer networks including the internet - Recognise the approval process that their posts go through - Explain the difference between the internet and World Wide Web - Know what a WAN and LAN are and can describe how they access the internet



	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computing systems and networks	<ul style="list-style-type: none"> - Recognise simple examples of personal information and trusted people - Recognise it's OK to say no to someone who asks me to do something I don't want to do - Recognise some ways the internet can be used to communicate. - Identify ways that people can be unkind online - understand a list of rules to help keep us safe and healthy in when using technology. - Begin to use the internet to find things out, with support - Begin to identify with support, examples of technology in the classroom 	<ul style="list-style-type: none"> - Select a piece of technology to do a specific job. - Recognise that some technology can be used in different ways. - Identify the main parts of a computer. - Use a mouse in different ways - Use a keyboard to type. - Use a keyboard to edit text. - Show how to use technology safely. 	<ul style="list-style-type: none"> - Describe some uses for technology - Identify information technology in school - Identify information technology beyond school - Show how to use information technology safely 	<ul style="list-style-type: none"> - Understand the importance of staying safe when using email - Know more than one way to report unacceptable content and contact. - Give examples of technology specific forms of communication (e.g. emojis, acronyms, text speak) - Recognise they need to be careful before they share anything about themselves or others online. - Explain the difference between bullying and cyber-bullying. - Explain why spending too much time using technology can sometimes have a negative impact. - Give reasons why they should only share information with people they choose to and can trust 	<ul style="list-style-type: none"> - Use technology safely - Explore key concepts relating to online safety - Explain how online identity can be different to the identity presented in 'real life' - Describe strategies for safe and fun experiences in a range of social media - Explain ways that some of the information about themselves online could have been created, copied or shared by others. - Identify some online technologies where bullying might take place. - Explain that others online can pretend to be them or other people, including friends. - Explain why copying someone else's work from the internet without permission can cause problems. - Be discerning in evaluating digital content - Assess selected webpages for credibility and information at a basic level. - Explore key concepts relating to online safety - Use key phrases in search engines. 	<ul style="list-style-type: none"> - Use technology safely - Have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. - Explain how identity online can be copied, modified or altered. - Recognise when someone is upset, hurt or angry online. - Explain how using technology can distract them from other things they might do or should be doing. - Create and use strong and secure passwords. 	<ul style="list-style-type: none"> - Use technology safely - Demonstrate the safe and respectful use of a range of different technologies and online services. - Describe ways in which media can shape ideas about gender - Explain how they are developing an online reputation which will allow other people to form an opinion of them. - Describe how to capture bullying content as evidence (e.g. screengrab, URL, profile) to share with others who can help. - Describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose - Explain how many free apps or services may read and share private information with others. - Be discerning in evaluating digital content - Recognise who owns information on the internet and if they are able to reuse the information.



	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Data handling		<ul style="list-style-type: none"> - Identify attributed of an object - Collect simple data - Show that collected data can be counted - Describe the properties of an object - Choose an attribute to group objects by - Group objects to answer a question - Explain that objects can be grouped by similarities (attributes) - Describe a group of objects (based on commonality) 	<ul style="list-style-type: none"> - Show I can enter data into a computer - Recognise that people, animals and objects can be described by attributes - Use a computer to view data in different formats - Use pictograms to answer single-attribute questions - Use a computer to answer comparison questions (graphs, tables) 	<ul style="list-style-type: none"> - Select, use and combine software - Collect, analyse, evaluate and present data and information using software - Consider what software is most appropriate for a given task. - Create purposeful content to attach to emails - Use search technologies - Carry out simple searches to retrieve digital content. 	<ul style="list-style-type: none"> - Select, use and combine software - Make improvements to digital solutions based on feedback. - Create linked content using a range of software. - Use search technologies - Understand the function, features and layout of a search engine. 	<ul style="list-style-type: none"> - Select, use and combine software - Make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution 	<ul style="list-style-type: none"> - Select, use and combine software - Use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements. - Use search technologies - Apply filters when searching for digital content
Creating media	<ul style="list-style-type: none"> - Explore mark marking on iPads/IWB - Experiment with using keyboard to make marks on a page 	<ul style="list-style-type: none"> - Create a picture using free hand tools - Use shape and line tools when precision is needed - Use a range of paint colours - Use fill tool to colour an enclosed area - Use the Undo button to correct a mistake - Combine a range of tools to create a piece of artwork - Use letter, number and Space keys to enter text into a computer - Use punctuation and special characters - Use the Backspace key to remove text - Position the text cursor in a chosen location - Select options to achieve a desired effect 	<ul style="list-style-type: none"> - Capture digital images - Take photographs in both landscape and portrait format - View photographs on a digital device - Decide which photographs to keep - Hold the camera still to take a clear photograph - Use zoom to change the composition of a photograph - Consider lighting before taking a photograph - Use filters to edit the appearance of a photograph - Improve a photograph by retaking it - Experiment with musical patterns on a computer - Experiment with different sounds on a computer - Use a computer to create a musical pattern - Use a computer to compose a rhythm and a melody on a given theme - Use a computer to play the same music in different ways (e.g. tempo) - Evaluate a musical composition created on a computer - Improve a musical composition created on a computer 	<ul style="list-style-type: none"> - Plan an animation using a storyboard - Set up the work area with an awareness of what will be captured - Capture an image - Use the onion skinning tool to review subject position - Move a subject between captures - Review a captured sequence of frames as an animation - Remove frames to improve an animation - Add media to enhance an animation - Review a completed project - Show page orientation can be changed - Add text to a placeholder - Organise text and image placeholders in a page layout - Edit text in a placeholder - Choose fonts and apply effects to text - Review a document 	<ul style="list-style-type: none"> - Record sound using a computer - Play recorded audio - Import audio into a project - Delete a selection of audio - Change the volume of tracks in a project - Recognise that digital images can be manipulated - Recognise that digital images can be changed- for different purposes - Choose the most appropriate tool for a particular purpose - Consider the impact of changes made on the quality of the image 	<ul style="list-style-type: none"> - Use different camera angles - Use pan, tilt and zoom - Identify features of a video recording device or application - Combine filming techniques for a given purpose - Determine what scenes will convey your idea - Decide what changes I will make when editing - Choose to reshoot a scene or improve later through editing - Use split, trim and crop to edit a video -Add an object to a vector drawing - Select one object or multiple objects - Delete objects - Move objects between layers of a drawing - Group and ungroup selected objects - Duplicate objects using copy and paste - Modify objects - Combine options to achieve a desired effect - Create a vector drawing for a given purpose 	<ul style="list-style-type: none"> - Review an existing website (navigation bars, headers) - Create a new blank web page - Add text to a web page - Set the style of text on a web page - Change the appearance of text - Embed media in a web page - Add web pages to a website - Insert hyperlinks between pages - Insert hyperlinks to another site - Preview a web page (different screen sizes) - Position 3D shapes relative to one another - Use digital tools to modify 3D objects - Combine objects to create a 3D digital artefact - Use digital tools to accurately size 3D objects - Construct a 3D model which reflects a real world object.



	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary	<p>On Off Switch Backwards Forward Instruction Sound Moving Buttons Collect Command Computer Count Equipment Keyboard Keys Monitor Mouse Movement Organise Phone Camera Remote Set of photos Type Choices Create Internet information Share Technology Website</p>	<p>technology, computer, mouse, trackpad, keyboard, screen, double-click, typing. object, label, group, search, image, property, colour, size, shape, value, data set, more, less, most, fewest, least, the same paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool, undo tool, colour, brush style, brush size, pictures, painting, computers 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. Bee-Bot, forwards, backwards, turn, clear, go, commands, instructions, directions, left, right, route, plan, algorithm, program.</p>	<p>Information technology (IT), computer, barcode, scanner/scan music, quiet, loud, feelings, emotions, pattern, rhythm, pulse, pitch, tempo, rhythm, notes, create, emotion, beat, instrument, open, edit. device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter, format, framing, lighting, 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 instruction, sequence, clear, unambiguous, algorithm, program, order, prediction, artwork, design, route, mat, debugging, decomposition 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>digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets text, images, advantages, disadvantages, communicate, font, style, landscape, portrait, orientation, placeholder, template, layout, content, desktop publishing, copy, paste, purpose, benefits. animation, flip book, stopframe, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition. Branching databases Sequencing sounds and actions in programs attribute, value, questions, table, objects, branching, database, objects, equal, even, separate, structure, compare, order, organise, selecting, information, decision tree. 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. motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set up, pen, design, action, debugging, errors, setup, code, test, debug, actions.</p>	<p>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. 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. Data logging Repetition in shapes Repetition in games data, table, layout, input device, sensor, logger, logging, data point, interval, analyse, dataset, import, export, logged, collection, review, conclusion. Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure. 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.</p>	<p>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. 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 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. data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation. 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 Selection, condition, true, false, count-controlled loop, outcomes, conditional statement, algorithm, program, debug, question, answer, task, design, input, implement, test, run, setup, operator</p>	<p>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. 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. 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. variable, change, name, value, set, design, event, algorithm, code, task, artwork, program, project, code, test, debug, improve, evaluate, share, assign, declare 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.</p>