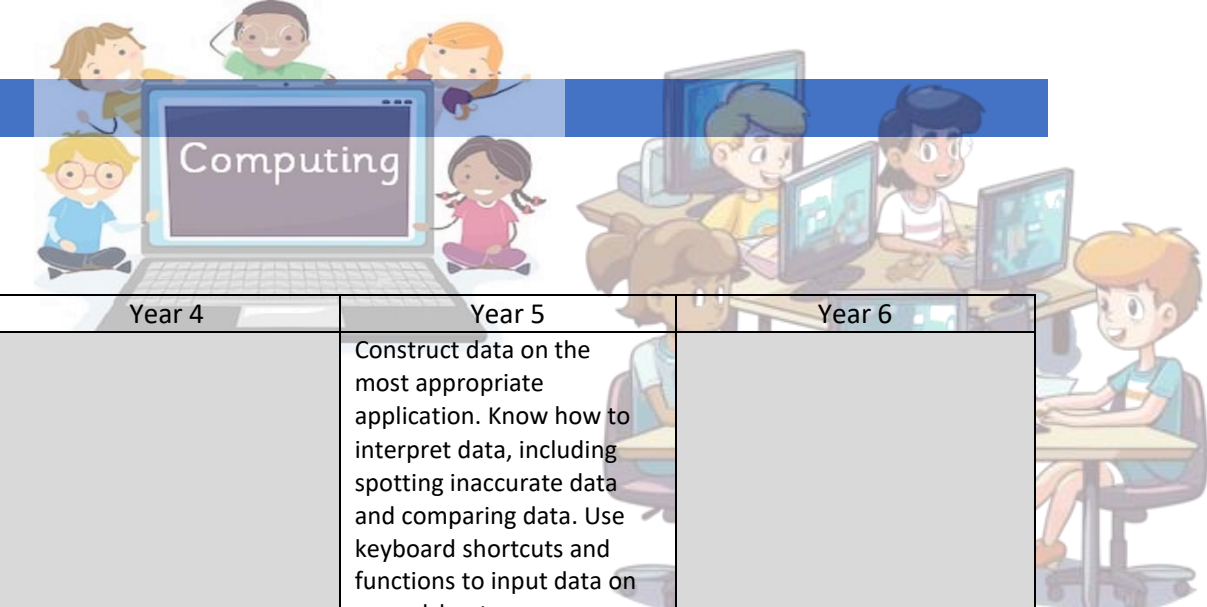


Subject Progression Map Computing



	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Handling Data		To create pictograms to show data collected.		Talk about the different ways data can be organised. Sort and organise information to use in other ways. Insert table into a Word document.		Construct data on the most appropriate application. Know how to interpret data, including spotting inaccurate data and comparing data. Use keyboard shortcuts and functions to input data on spreadsheets.	
Technology in our lives	Role play with common technology found in the home	Recognise ways that technology is used in the home and community, e.g. taking photos, blogs, shopping.	Recognise ways that technology is used in the home and community, e.g. taking photos, blogs, shopping. Use links to websites to find information. Recognise age-appropriate websites. Use safe search filters.	Explain ways to communicate with others online. Describe the world wide web as the part of the internet that contains websites. Use search tools to find and use an appropriate website and content. E-mail – open email through RM Unify; send and receive emails from within school network; add emojis and manipulate the font	Explain ways to communicate with others online. Describe the world wide web as the part of the internet that contains websites. Add websites to a favourites list. Use search tools to find and use an appropriate website and content. Use strategies to improve results when searching online.	Search for information using appropriate websites. Use strategies to check the reliability of information (cross-check with another source such as books).	Search for information using appropriate websites and controlled searches. Understand about the way search results are selected and ranked. Check the reliability of a website, including the photos on site. Tell you about copyright and acknowledge the sources of information. Use Teams to access PowerPoint and Word saved documents
Coding and Programming	Learn to make devices move by inputting single or simple sequences of instructions.	Learn that programs execute by following clear instructions. Understand that programs respond to inputs to do different things. To understand what coding is; to use coding blocks to make animated scenes. Learn to combine start and input events to create more advanced apps and programs using precise instructions. To understand what simple inputs are; to combine start up and input events to create more advanced programs. Give commands one at a time to control direction and movement, including straight, forwards, backwards, turn. Give a set of instructions	Learn that programs respond to different sorts of inputs, and that the keyboard can be used to control objects on screen, not just by clicking them directly. To understand and use different types of input; to make things happen by clicking and releasing the mouse or using the keyboard. Learn that one object can be used to control another object, e.g. writing code so clicking a button gives an instruction to make a lorry move. To understand that buttons are objects that can be used to control another object.	Learn to make things happen in a sequence, creating simple animations and simulations. To program sequences to create simple animations and simulations. To make decisions about the order of events. Learn to code with 'if statements', which select different pieces of code to execute depending on what happens to other objects. To code using hit events, which allows the programmer to set conditions for the code inside it. <ul style="list-style-type: none"> To start basic coding with Python to use Python to do simple calculations to learn how to get and input from the user and store it 	Learn how computers use variables to count things and keep track of what is going on, then create simple games which use a score variable. To understand what a variable is; to use variables to build some fun games. To learn what repetition and loops care; to use loops to make your code more efficient. <ul style="list-style-type: none"> To use turtle graphics in Python To learn what turtle graphics are and how to code lines and various patterns, shapes and images To debug errors in coding 	To use buttons to set or change the speed and direction of objects on screen. To combine conditional events with object properties to make a game. To generate random numbers to control the speed, direction and appearance of objects on the screen To create a simple simulation by setting random directions within a specific range Learn how to use the random numbers library in Python Learn how to combine random numbers and text in Python using different commands. Learn how arrays can be used to produce phrases within Python	To use variables to ask the user for an input and create an interactive graph. To combine variables with conditional events to create a game which gets more and more difficult Perform calculations with variables to simulate a toy shop till. Use Boolean expressions to simulate a working stopwatch Use combined knowledge and skills to create free-coded apps. Transfer skills learnt from one app to another; creating working games that include variables (eg: scores)

		to follow and predict what will happen.		<ul style="list-style-type: none"> to use “if” commands To use variables to complete simple calculations 		Learn how to combine the random library and the graphics library to create a variety of effects. Learn how to combine loops with random numbers and graphics libraries to create 2D shapes.	
Digital Literacy	Revelation Art Simple	Revelation Art Simple Word – using the keyboard	Revelation Art Simple Word – copy and pasting images from the internet	PowerPoint – manipulating images and text; start to use simple animations Word – copy and paste information from the internet	Word – Manipulating text: size, font, colour and position for effect PowerPoint – add transitions to slides	Word – recap previous experiences, showing greater control of the formatting menu - insert shapes, text boxes, create backgrounds. Formatting textboxes and images. Use short cuts (ctrl +c) Open and close in Teams. Control layout for effect.	PowerPoint – use of designer tools; insert sounds and videos; more effective use of slide transitions and animations, including timings. Digital Art (Bomomo) – create abstract art using online art app.
Online Safety	Understand that they should ask permission before using any technology at home. To ask permission to play on games and to not click on links in games.	Identify what things count as personal information. Seek help from an adult when they see something that is unexpected or worrying. Using the internet and digital devices communicating online age restrictions and rules.	Identify what things count as personal information. Identify what is appropriate and inappropriate behaviour on the internet. Agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords. Seek help from an adult when they see something that is unexpected or worrying; Demonstrate how to safely open and close applications	Identify what is appropriate and inappropriate behaviour on the internet, recognising the term cyberbullying; Agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords. Seek help from an adult when they see something that is unexpected or worrying. Demonstrate understanding of age appropriate websites and adverts.	Agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords. Seek help from an adult when they see something that is unexpected or worrying. Demonstrate understanding of age appropriate websites and adverts	Protect their password and other personal information. Be a good online citizen and friend. Judge what sort of privacy settings might be relevant to reducing different risks. Seek help from an adult when they see something that is unexpected or worrying.	Understand the reliability of websites and information; knowing how to identify unreliable sources or “fake news”. Discuss and recognise misinformation and disinformation, as well as bias in websites/information. Understand that image and videos can be altered and that many online images have been changed.
Key vocabulary	Permission, online, online games, links. Program, command, forwards, backwards, left, right, control, start, stop	safe, tell, online, trusted, adult, information, safety, personal, safe, share, stranger, danger, internet. computer, keyboard, monitor, mouse, save, open, username, password, save, open, Instructions, internet safety, create, click, object, digital devices, and tablet. algorithms, program, coding, solve, run, code, execute, action, start event, technology, digital, internet, instruction,	internet, safe, accept, tell, online, trusted, adult, information, safety, personal, key, question, tell, share, stranger, danger Google, search engine, image, keyboard, email, internet, subject, address, communicate, sender, safe, secure. output, input, pointer, key press, object, action, button, input log on, log off, click, drag, text, font, copy and paste, images, position, size, save,	Google, search engine, image, keyboard, email, subject, address, communicate, sender, secure, internet, world wide web, social media. safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, profiles, account, private, public wait, action, timer event, sequence, hit event, object,	filter, Google, search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media. Fonts, bullet points, text boxes, justify too, page border, Image format, copy and paste, slide transitions, animations Change, set, variable, Cyber bullying Content, loop, nesting, infinite, repeat,	world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal. https, site, domain, website, browser, address bar. Cyber bullying, report,	world wide web, search, search engine, advanced search, results, Google, browser, bias, plagiarism, source, website, secure, https, site, website, browser, address bar. sprite, backdrop, animate, blocks, virtual, command, sequence, select, repeat, control, operator, Boolean expression, variable, user input, debug E-safety: Misinformation, disinformation, world wide web, search, search engine, advanced search, results,

		order, program, turn, left, right, blocks, sequence.	open, network. coding, program, instructions, order, algorithms, debug, turn, left, right, blocks, sequence, buttons, input, object, click, drag	condition, selection, Python, code, input, variables, "if" commands, user Email, attachment, Spam, animation, font, image, emoji	Python, graphics, turtle, instructions, program, simulations, debugging	block, flag, screenshot, acceptable, unacceptable, Excel, insert, table, spreadsheet, cell, row, column, calculate, format, edit, insert, data, shortcut. x co-ordinate, y co-ordinate, object property, co-ordinates, heading, angle, simulation, random, range, object property, random, simulation, variable, range, loop, array, RGB	Google, browser, bias, plagiarism, source, website, secure, https, site, website, browser, address bar. bias, fake news, http, domain, site, internet, web address, source, misinformation, disinformation
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