## Y5/6 Computing Curriculum Medium Term Plan (Cycle A)

Autumn							
Topic		Lesson Focus	Key Knowledge	Vocabulary			
Esafety	1	Self image and identity	To know that someone's online identity can be different to their identity in 'real life'.  To know that someone might change their identity online.  To know the positive reasons for changing your online identity and the negative reasons for doing so.	copy, modify, alter, identity, avatar			
	2	Online relationships	To know that a variety of communication methods have been developed specifc to online communication eg gifs, memes.  To know that not all people online have good intentions.  To know the positives and negatives of social media.  To know how to report problems and show support to others online.	Identity, trusted adult, impersonation,			
Data handling	1	Understand basic features of a spreadsheet	A spreadsheet is a huge table made up of cells (square boxes) that you can type information into  A spreadsheet file is made up of one workbook and multiple worksheets which can be seen as tabs at the bottom of the screen.	Spreadsheet, cell reference, formula, column, rows, format, functions, tabs, chart, sort and filter, conditional formatting,			
	2	Adding data to a spreadsheet	There are three types of data to be added: data (numbers/letters), Labels (headings) and Formulas (calculations that update automatically when using cell references.)	alphabetical, numerical, duplicate, drag and drop, adjacent, non-adjacent,			
	3	Formatting a spreadsheet	We can format a spreadsheet by changing the font, adding colour, charts or images.	averages, total			
	4	Using formulas	To know that we can use a formula within a spreadsheet to find totals, averages and other information.				
Understanding	1	Understand Computer Networks, Internet and Cloud Computing and how they help us.	To know that a computer network is a number of computers linked together to allow them to "talk" to each other and share resources.	Network, computers, link, share, hardware, software, data, server,			
computer networks			To know that networked computers can share hardware, software and data.	files, access, connect, router,			
and the world wide			To know that most schools have a computer network that connects the PCs to a server where all the files are stored.	wireless access points, wired network points, wireless			
web			To know that we save our work to a server and not just one computer so that we can access it from any computer.	hardware, wired hardware			

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	2	What is email and how can we use it safely?	To know that Email addresses have a domain name which is after the @ sign and that the last part of the address indicates where the address is registered such as .co.uk.  To know that Email is an electronic way of sending a letter in the post but has advantages, including being quicker because it uses the internet. We can also attached files to an email, such as a video.  To know that emails are stored on servers and we need an email address to send the mail to a person.  To know the different aspects of email software; inbox, outbox, subject, CC, address book and attachments.	
	3	How and why can we collaborate online?	To know that we can collaborate (work together) online.  To know that collaborating online has many advantages- more than one person can work on the same document, sharing ideas, sharing resources, saving paper etc.	
			Spring	
ESafety	1	Online Bullying	To know that online bullying can be different from bullying in the physical world.  To know that our actions on the internet can have a detrimental impact on someone else.  To know where or who to turn to for help and how to report concerns.  To know how to block users.	
Louicty	2	Managing online information	To know there are benefits and limitations of different search technologies.  To know the importance of 'being sceptical' about information on the internet.  To know that information can be cross-referenced to check its validity.  To know what fake news is and understand the harm it can cause.	
	1	Understand conditions	To know that conditions are basic "if, then" logic statements that modify how code is executed. Conditions are a key part of the decision-making process for computer	Algorithms, debugging, program, repeat, input, output, sequencing, commands,
Programming in	2	Explore how to make algorithms more efficient	To know that sequential steps and loops can help to make algorithms more efficient.	directions, repeat, loops, digital footprint, trail, modify, efficient,
Scratch	3	Change variables	To know that a variable is something that can be changed.	conditionals, functions, crowdsourcing, digital citizenship, binary, parameters, variables
	4	Explore functions	To know that a function is a sequence of commands that can be reused later in a program.	

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			Summer	
ESafety	1	Privacy and security	To know how to create a strong password.  To know how apps and websites may share our private information.	
Programming Physical Systems	1	Understand and explore Microbits	To know that the Microbit works a little like a USB stick, where the program is written on the website and downloaded to the Microbit to run it.	Micro-Bit, variable, compass, Bluetooth, repetition, accelerometer, processor, random, loop, programmable
	2	Programme a microbit	A Micro:bit is a small, wearable piece of tech that can be programmed to do multiple useful things.	
	3	Create an object using a microbit		
App Design	1		To know we are using apps for everything now; entertainment, shopping, education, socialising, banking and much more but before apps are made they need to be designed.	Screen dimensions, icons, navigation, hyperlinks, duplicate
	2		Know how to use the tools in different presentation software (PowerPoint, Keynote, Google Slides) to design an app about your school with: - Slide size and background colour Text and images (including transparent images) on different pages Icons and interactive hyperlinks between pages.	

<sup>\*</sup>ongoing skill throughout year