Y6 Computing

TERM 1A		TERM 1B		TERM 2A		TERM 2B		TERM 3A		TERM 3B	
Think before you post		Dangerous Earth spreadsheet		Evaluating digital content (Safer Internet Day during Feb)		MICROBIT: Getting active (x5)		Copyright & plagiarism		Control DT models Digital footprint	
Key knowledge	**Key skills**	**Key knowledge**	**Key skills**	**Key knowledge**	**Key skills**	**Key knowledge**	**Key skills**	**Key knowledge**	**Key skills**	**Key knowledge**	**Key skills**
To know sharing pictures and videos can be a great way of telling your story but always think before you share. To know if you've taken a picture or video of your friends or family you must get their permission to post it online. To know anything you post online could be there forever. If you're not sure a photo paints a positive picture of you (or your friends!) then think twice before posting.	To be able to use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact. To be able to understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.	To know everything in a spreadsheet goes into a cell (like a box in a grid). Each cell is named by the row and column in which it is located. To know cells can be formatted to look clearer or more interesting, similar to word processing. To know it is possible to change cell colours and borders, font size, style, colour, row height and column width. To know one advantage of spreadsheets is the ability to do calculations quickly using the SUM function. To know the symbol for multiply is '*' and for divide, we use '/'. It is possible to order data using the sort function.	To be able to select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. To be able to enter text and numbers into a spreadsheet. To be able to identify and refer to cells by row and column. To be able to begin to enter formulae with the SUM function. To be able to enter formulae into cells. To be able to edit data and discuss the effect on results. To be able to use further functions including AVERAGE, MIN and MAX. To be able to create graphs. To be able to design their own spreadsheet for a specific purpose.	To know not all of the information you find on the internet is true because anybody can write anything they want to online. To know some information online is not reliable so it is important to check information on at least three different websites, in a book or by talking to someone you trust. To know to take care to spell correctly when typing in a search. To know even a small typing error can bring up unwanted results. Viewing some material online is illegal. To know if we see something upsetting we minimise the page and tell an adult we trust.	To be able to use technology safely, respectfully and responsibly; recognise Acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact. To be able to understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.	To know to use variables to describe a character or shape. To know to explain how variables are used in programs. To understand that some devices use sensors. To know to explain how repetition is used when programming sensors. To know that data can be used as a condition in selection. To understand the effects of changing the value of data in programs.	To be able to analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems. To be able to write algorithms that use variables. To be able to debug programs containing variables. To be able to write algorithms that show how sensors will be used. To be able to read and write algorithms using selection. To be able to identify how digital assistant might work. To be able to write programs that use data as a condition. To be able to write a program to use a micro:bit as a digital assistant.	To know sharing pictures and videos can be a great way of telling your story but always think before you share. To know if you've taken a picture or video of your friends or family you must get their permission to post it online. To know anything you post online could be there forever. If you're not sure a photo paints a positive picture of you (or your friends!) then think twice before posting. To know not all of the information you find on the internet is true because anybody can write anything they want to online. To know some information online is not reliable so it is important to check information on at least three different websites, in a book or by talking to someone you trust. To know to take care to spell correctly when typing in a search. To know even a small typing error can bring up unwanted results viewing some material online is illegal. To know if we see something upsetting, we minimise the page and tell an adult we trust. To know that permission is needed to use others work. To know what AI is and how it works.	To be able to use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact such as the World Wide Web; and the opportunities they offer for communication and collaboration. To be able to learn the impact that social media posts can have on one's digital footprint. To be able to recognise examples of oversharing on social media. To be able to practise creating social media posts that demonstrate care for the digital footprints of the self and others. To be able to know if something requires copyright. To be able to know when AI is/is not useful.	To know microbits are easy to use micro-controllers which use scratch-inspired software. To know light dependent resistors (LDRs) are electrical components in which the resistance (block to the flow of electricity) decreases as the light shining on it gets stronger. To know repetition is used in programming to give the same instruction or set of instructions several times. To know repetition uses loops as the means to give these instructions. To know conditions are statements that need to be met for a set of actions to be carried out. To know they can be used in algorithms and programs to control the flow of actions. To know when a condition is met, it is referred to as 'true' and when it is not met, it is referred to as 'false'. To know selection is implemented in programming using if...then... statements. To know selection is used to control the flow of actions in algorithms and programs by checking if a condition has been met.	To be able to design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. To be able to use sequence, selection, and repetition in programs; work with variables and various forms of input and output. To be able to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. To be able to select, use, and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information.

	Enquiry/question/outcome/activity/genre of unit/text What digital content can I share safely?		**Enquiry/question/outcome/activity/genre of unit/text** How can I accurately use software to present my data findings?		**Enquiry/question/outcome/activity/genre of unit/text** What does evaluating digital content mean? How should we respond if we see inappropriate material?		**Enquiry/question/outcome/activity/genre of unit/text**		**Enquiry/question/outcome/activity/genre of unit/text**		**Enquiry/question/outcome/activity/genre of unit/text** Use physical computing to explore the concept of selection in programming through the use of the Microbit programming environment.	
	Key vocabulary (tier 2) image negative positive post share	**Key vocabulary (tier 3)** acceptable permission unacceptable	**Key vocabulary (tier 2)** borders colour column font size height row sort spreadsheet style width	**Key vocabulary (tier 3)** analysing average cell collecting evaluating function presenting SUM	**Key vocabulary (tier 2)** internet online search engine true trust website	**Key vocabulary (tier 3)** illegal posting reliable	**Key vocabulary (tier 2)** data device repetition selection sensor variable	**Key vocabulary (tier 3)** value of data	**Key vocabulary (tier 2)**	**Key vocabulary (tier 3)**	**Key vocabulary (tier 2)** buzzer commands loops program switch	**Key vocabulary (tier 3)** conditions LED repetition selection