

MBK Year 6 Computing Long term progression plan

Multi-media	Programming	Data	Digital Literacy	Information Technology	Knowledge	Skills
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	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Unit/focus	Creating a webpage, using design skills and understand copyright and plagiarism	Introduction to using Excel and spreadsheets	Create a game in Scratch	Creating media – recording a video	How search engines work	Using sensing in physical computing
Planning resources	Web page creation medium term plan	Spreadsheets	Programming A Using variables in games medium term plan	Video editing medium term plan	Communication medium term plan	Sensing using crumbles
	Just a joke? Lesson 2	Let's fight it together	Just a joke? Lesson 3	Live streaming (2 lessons)		
	Knight's Tour puzzle Swap puzzle Pixel spreadsheet Non-verbal reasoning problems					
Physical resources	Chromebook/laptop Google sites (Google login)	Laptops with full version of Excel	Chromebook/laptop Scratch Possible Scratch logins	Ipads or hardware to record video	Chromebook/laptop	Crumbles Chromebook/laptop

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Knowledge and skills	Evaluate existing digital content in terms of effectiveness and design.	Use simple formulae in a spreadsheet to find out information from a set of data.	To define a 'variable' as something that is changeable. I can identify examples of information that is variable	I can identify and name digital devices that can record video and sound I can locate and identify the working features of a digital device that can record video	Students can recognise ways that people may seek to persuade them online	Design and program a physical computing system that uses sensors.
	Consider all steps of the design process when creating content (e.g. identify problem, plan, create, evaluate, share.)	Collect data for a purpose and plan out a spreadsheet to present it effectively, using relevant formulae.	To explain why a variable is used in a program. I can identify a program variable as a placeholder in memory for a single value	I can explain why lighting and angle are important in creating an effective video	I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.	I can explain the importance of the order of conditions in else if statements
	Select, combine and remix a range of media to create original content.	Produce graphs from data in a spreadsheet to answer a question.	To choose how to improve a game by using variables. - I can recognise that the value of a variable can be used by a program	I can explain how to improve a video by reshooting and editing	I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs.	I can decide what variables to include in a project

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	I can recognise online behaviour that uses gender stereotypes or body shaming to upset and hurt people. I know that acting in this way is cyberbullying	Analyse and evaluate data and information in a spreadsheet, chart or database.	Identify strategies for dealing with cyberbullying and ways they can be an upstander for those being bullied.	I can explain how sharing something online may have an impact either positively or negatively.	To describe how search engines select results	I know and can use a range of approaches to find and fix bugs
	I can recognise online content that can cause upset, hurt or shock. I know that sharing this content for a joke is not kind or respectful.	Recognise that poor quality data leads to unreliable results.	I can recognise online content that can cause upset, hurt or shock. I know that sharing this content for a joke is not kind or respectful.	I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.	To explain how search results are ranked	I can use an operand (e.g. <=>) in an if... then... statement
	I know how to seek help about online content that I am confused or curious about.	- I can explain the relevance of a cell's data type - I can identify that changing inputs changes outputs	I know how to seek help about online content that I am confused or curious about.	I can choose the most suitable digital device for recording my project	To recognise why the order of results is important, and to whom	I can design the algorithm and program flow for my project

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	To consider the ownership and use of images (copyright) and to recognise the implications of linking to content owned by other people	I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me.	I can decide where in a program to change a variable I can make use of an event in a program to set a variable	- I can demonstrate suitable methods of using a digital device to capture my video - I can demonstrate the safe use and handling of devices - I can select a suitable device and software to capture my video	I can describe some of the ways that search results can be influenced	I can create a program based on my design
	To outline the need for a navigation path	I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying.	I can identify ways that my game could be improved	I can record a video that demonstrates some of the features of an effective video	I can decide when I should and should not share on the internet	I can modify a program to achieve a different outcome
	To know that websites are written in HTML	- I can answer questions from an existing data set - I can explain the relevance of data headings	Plan out a program in detail, including task, algorithm, code and execution level.	I can select the correct tools to make edits to my video - I can store, retrieve, and export my recording to a computer	I can explain how search engines make money	I can test my program against my design

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	I can recognise the common features of a web page	- I can apply an appropriate number format to a cell - I can build a data set in a spreadsheet application - I can explain what an item of data is	Explain common errors in programs and how to fix them.		I can recognise some of the limitations of search engines	
	I can describe what is meant by the term 'fair use' - I can find copyright-free images - I can say why I should use copyright-free images	- I can construct a formula in a spreadsheet	Use nested selection statements in a program or algorithm effectively.		Use the advanced search tools when using a search engine to find specific information and images	
	I can make multiple web pages and link them using hyperlinks	- I can apply a formula to multiple cells by duplicating it - I can create a formula which includes a range of cells	Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say "well done".			
	I can create hyperlinks to link to other people's work - I can evaluate the	- I can produce a graph - I can suggest when to use a table or graph - I can use a graph to	I can explain how anyone can get help if they are being bullied online and			

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	user experience of a website	show the answer to questions	identify when to tell a trusted adult.			
	I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.	I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences.	I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.			
Ongoing skills	<ul style="list-style-type: none"> - Type efficiently using both hands. - Use a range of keyboard shortcuts. - Recognise that different devices may have different operating systems. - Organise files effectively using folders and files names. - Recognise common file types and extensions e.g. jpeg, png, doc, wav 					