

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Digital Citizenship/ Online Safety	Self-image and identity					
	Talk about their digital footprint. Recognise that there may be people online who could make them feel sad, embarrassed or upset If something happens that makes them feel sad, worried, uncomfortable or frightened they can give examples of when and how to speak to an adult they can trust. (Butterfly Feeling)	Talk about their digital footprint and explain how other people may look and act differently online and offline Give examples of issues online that might make us feel sad, worried, uncomfortable or frightened, and give examples of how they might get help. (Butterfly Feeling)	Use technology safely, respectfully, responsibly and be able to talk about their digital footprint Explain what is meant by the term 'identity' Explain how people can represent themselves in different ways online	Explain how their online identity can be different to their offline identity and be able to talk about their digital footprint Explain that others online can pretend to be someone else, including their friends, and can suggest reasons why they might do this	Talk about their digital footprint and demonstrate responsible choices about their online identity, depending on context Explain how identity online can be copied, modified or altered	Talk about their digital footprint and the importance of asking until they get the help needed 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 Describe issues online that could make anyone feel sad, worried, uncomfortable or frightened and know and give examples of how to get help, both on and offline
	Online relationships					
	Give examples of when they should ask permission to do something online and explain why this is important.	Give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country) Explain why they have a right to say 'no' or 'they will have to ask someone'. Explain why they should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online	Explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with Explain how someone's feelings can be hurt by what is said or written online	Give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours Explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs	Explain how someone can get help if they are having problems and identify when to tell a trusted adult	Explain how sharing something online may have an impact either positively or negatively Describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not
	Online reputation					
	Recognise that information can stay online and could be copied	Explain how information put online about them can last for a long time	Give examples of what anyone may or may not be willing to share about themselves online Explain the need to be careful before sharing anything personal	Describe how to find out information about others by searching online	Describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect	Explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity
	Online bullying					
Describe how to behave online in ways that do not upset others and can give examples	Explain what bullying is, how people may bully others and how bullying can make someone feel Give examples of bullying behaviour and how it could look online	Describe ways that some people can be unkind online Offer examples of how this can make others feel	Describe ways people can be bullied through a range of media (e.g. image, video, text, chat) Explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation)	Recognise online bullying can be different to bullying in the physical world and can describe some of those differences Describe the helpline services which can help people experiencing bullying, and how to access them (e.g. Childline / CEOP / The Mix)	Describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help them.	
Health, wellbeing and lifestyle						
Explain rules to keep us safe when we are using technology both in and beyond the home	Explain simple guidance for using technology in different environments and settings, e.g. accessing online technologies in public places and the home environment.	Explain why spending too much time using technology can sometimes have a negative impact on anyone, e.g. mood, sleep, body, relationships	Explain how using technology can be a distraction from other things, in both a positive and negative way	Describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively Describe some strategies, tips or advice to promote health and well-being with regards to technology Recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals	Describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose Assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise)	
Digital Literacy	Input text and images using a simple publishing programs Type a simple sentences on the screen, making use of a word bank . Format their typing in a number of ways (size, colour, font) Know the main keys for typing e.g. shift, space bar, full stop Type simple sentences using the correct format (Capital letters, space and full stop) Know how to make text bold/ italics / text alignment etc. Know simple keyboard shortcuts Ctrl + B, I, U to edit my text style Know how to move to different places in the text	Use spell checker to check their work. Use the return/enter key to insert relevant line breaks Save an image from the internet rather than using copy & paste Add a page border Insert a basic table Know which page orientation would best suit their work. e.g. portrait to landscape Know how to transfer these skills into PowerPoint	Type a number of sentences using the keyboard Use tab to indent paragraphs Use cut, copy and paste to re-order text Use keyboard shortcuts e.g. Ctrl + V, X, C to re-order text. Use bullet points, speech bubbles, auto shapes and text boxes Format wrapping/layout of text boxes and images in word Format images - move, rotate and re-size shapes Use the format tab to alter word art to enhance their work. Use a variety of table tools (merge cells, fill, columns etc.)	Transfer word processing skills into other multimedia packages e.g. PowerPoint Import images, hyperlinks and the use of sounds recorded into documents Enter a basic mathematical formula into Excel Add basic mathematical formulas Use SUM to calculate the total of a set of numbers in a range of cells Change the look of a spreadsheet by using different formats e.g. text styles, colour, number format inc, currency and date, row and column heights Insert and delete columns and rows in a spreadsheet Use spreadsheets to create a graph	Select appropriate tools to add emphasis and effect to their work Know why they have chosen their layout and formatting Review and edit their work and talk about the changes they made Know whether their work is suitable for the audience Create a database structure of their own and enter the data Prepare a data collection form and collect quality information Use databases to create a graph Know the most appropriate form of graph for a data set giving reasons for their choice.	Choose, select and use a combination of software to present their work Select appropriate tools to add emphasis and effect to their work Know why they have chosen their layout and formatting Review and edit their work and talk about the changes they made Consider whether their work is suitable for the audience Draft and redraft their work by deleting, inserting and replacing text Interpret graphs of data collected from a variety of sources

	using the arrow keys or mouse Use the 'undo' icon to fix a mistake		Explain the difference between save and save as. Create a folder to save their work in. Give a file a name to identify it Transfer these skills into PowerPoint	Decide on the most appropriate form of graph for a data set and give reasons for their choice Interpret graphs of data collected from sensors	Interpret graphs of data collected from a variety of sources	
Computer Science	Say what an algorithm is Plan a simple algorithm Give and follow commands, which include straight / turning commands - one at a time Debug a simple algorithm that is causing an unexpected outcome. Break an algorithm down into smaller parts (decomposing / chunking) Predict if a simple algorithm will work	Know what a program is Know what an event is can Know that programs need an event to begin Give and follow instructions, which include direction and turning command - several in order Know that computers need precise instructions Plan and use logical reasoning to predict outcomes Create a program that contains several commands for a device or software programme Debug a program independently what has caused an unexpected outcome Use different events to start programs - timing / on click / on button press	Know that a sequence is a list of instructions in a particular order know that if they change the sequence it may change the outcome of the program Sequence a simple program on Logo to produce a line drawing of a 2D shape Solve problems by decomposing them into smaller parts Detect and debug errors in a sequence Use and edit a pre-written program to achieve a specific outcome Use logical reasoning to explain what will happen next Predict how a change in a sequence may impact the outcome of a program	Know what a repeat is Know that a repeat is used to repeat a set of instructions Use repeats in programs confidently Independently select repeat and sequence code to make their own program Detect and debug errors in algorithms and programs. Transfer their coding skills between software Explain why it is important to use the repeat function in a particular place in a sequence	Know what a conditional / selection is Plan an algorithm and then write a program using the following: commands, sequence, repetition and selection / condition ('if...then') Detect and debug errors in more complex algorithms and programs Use selection to create games in which the user must make a choice Use the skills and understanding of conditional / selection in more than 2 programs	Explain what a variable is Confidently use events, repeats, selection and variables Use a variable in a variety of programming software Confidently decompose a problem and methodically create a program to solve it, testing and adapting as they go Evaluate the effectiveness of their programming and suggest improvements Confidently use the Blockly programming language
Information Technology	Managing online information					
	Give simple examples of how to find information (e.g. search engine, browsers, voice activated searching) Know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened. (Butterfly feeling)	Use simple keywords in search engines Demonstrate how to navigate a simple webpage to get to information they need (e.g. home, forward, back buttons, links, tabs and sections) Explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'	Demonstrate how to use key phrases in search engines to gather accurate information online Explain the difference between a 'belief', an 'opinion' and a 'fact' and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc	Analyse information to make a judgement about probable accuracy and understand why it is important to make their own decisions regarding content and that their decisions are respected by others Describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites) Explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't	Explain what is meant by 'being sceptical'; and give examples of when and why it is important to be 'sceptical' Evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results Explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence	Explain how search engines work and how results are selected and ranked Explain how to use search technologies effectively Explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal Describe how some online information can be opinion and can offer examples Define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for fake news)
	Privacy and security					
	Explain how passwords can be used to protect information and devices Recognise more detailed examples of information that is personal to someone (e.g. where they live, family's names, where they go to school) Explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to themselves or others	Explain how passwords can be used to protect information, accounts and devices Explain and give examples of what is meant by 'private' and 'keeping things private' Explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions)	Describe simple strategies for creating and keeping passwords private Give reasons why someone should only share information with people they choose to and can trust Explain that if they are not sure or feel pressured then they should tell a trusted adult.	Describe strategies for keeping personal information private, depending on context Know what the digital age of consent is and the impact this has on online services asking for consent	Explain what a strong password is and demonstrate how to create one Explain what app permissions are and can give some examples	Describe how and why people should keep their software and apps up to date, e.g. auto updates Describe simple ways to increase privacy on apps and services that provide privacy settings Describe strategies to help identify such content (e.g. scams, phishing)
Copyright and ownership						
Explain why work they create using technology belongs to them. Save their work (Purplemash) so that others know it belongs to them (e.g. filename, name on content)	Recognise that content on the internet may belong to other people	Explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause	Explain why work they create using technology belongs to them. Save their work under a suitable title / name so that others know it belongs to them (e.g. filename, name on content) Understand that work created by others does not belong to them even if they save a copy	Assess and justify when it is acceptable to use the work of others Give examples of content that is permitted to be reused and know how this content can be found online	Demonstrate how to make references to and acknowledge sources they have used from the internet	
Information Technology						
			Explain a range of internet standards (e.g. HTTP, URL)	Know what an operating system is and why it is important Identify the key internal parts of a computer - RAM, memory, processor and motherboard and describe what each part does	Suggest what technology might look like in twenty years' time	