

YEAR 4	Computer Science	Information Technology	Digital Literacy
	Understand how computer networks can provide multiple services such as the world wide web	Collect Data	Understand the opportunities computer networks offer for communication
	Understand the difference between hardware and application software, and their roles within a computer system. Understand the difference between the internet and internet service e.g. world wide web.	Insert and edit simple tables in a presentation. (TM) Create a range of hyperlinks in a non-linear, interactive presentation. (TM)	Select an email recipient from a class address book. (EC) Use a range of digital tools to communicate, making purposeful contributions to respond to another pupil's question or comment. (EC)
	Appreciate how search results are selected	Use appropriate editing tools to ensure their work is clear and error free, e.g. spell checker, thesaurus, find and replace. (TM)	Consider the effectiveness of key questions on search results and refine where necessary. (DR)
	Identify whether a file has copyright restrictions and can be legally downloaded from the internet then used in their own work. (DR) Consider the effectiveness of key questions on search results and refine where necessary. (DR) Use strategies to verify the accuracy and reliability of information, distinguishing between fact and opinion e.g. cross checking with different websites or books. (DR) Choose the most appropriate search engine for a task, e.g. image search, search within a specific site or searching the wider internet. (DR)	Independently select process and import images, video and sounds from a variety of sources to enhance presentations. (TM) Begin to identify what data should be collected to answer a specific question. (DH) Collect data and enter it into a database under appropriate field headings. (DH) Understand the difference between data and information. Know why sorting data in a flat file can improve searching for information. Use filters or can perform single criteria searches for information.	Use strategies to verify the accuracy and reliability of information, distinguishing between fact and opinion e.g. cross checking with different websites or books. (DR) Choose the most appropriate search engine for a task, e.g. image search, search within a specific site or searching the wider internet. (DR) Recognise what is acceptable and unacceptable behaviour when using technologies and online services. Selects, combines and uses internet services.
	Control or simulate physical systems	Present Data	Explore what it means to be responsible and respectful of their online and offline communities. Learning how to be good digital citizens.
	Know that computers collect data from various input devices, including sensors and application software.	Insert and edit simple tables in a presentation. (TM) Create and use a Branching database to organise and analyse information to answer questions. (DH) Use appropriate editing tools to ensure their work is clear and error free, e.g. spell checker, thesaurus, find and replace. (TM)	How can you protect yourself from online identity theft? Think critically about the information they share online. Consider they may get messages from other children that make them feel angry, hurt, sad or fearful. Pupils identify actions that will make them upstanders in the face of Cyberbullying.
	Design programs that accomplish goals	Independently select process and import images, video and sounds from a variety of sources to enhance presentations. (TM)	Learn strategies to increase the accuracy of their keyword searches and make inferences about the effectiveness of the strategies.
	Plan, create, test and modify sequences of commands to solve open ended problems using a floor robot, screen turtle or other programmable devices. (LC) Use more advanced Logo programming, including pen up/pen down, and repeat commands to create, test, modify and refine sequences, e.g. more complex symmetric and repeating geometric patterns (LC)		Learn what plagiarism is. When and how is it ok to use the work of others?

YEAR 4	<p>Create and refine sequences of commands using Logo programming, including the use of procedures, e.g., to construct and investigate geometric patterns and problems. (LC)</p> <p>Refine sequences of commands to control outputs only, e.g. lighting sequences, buzzers and motors (This could include on screen simulations or real devices). (LC)</p> <p>Make predictions regarding the consequences of decisions when creating sequences of commands. (LC)</p> <p>Create programs that implement algorithms to achieve given goals. Declare and assign variables. Use post-tested loop e.g. 'until', and a sequence of selection statements in programs, including an if, then and else statement.</p>	<p>Select a variety of software to accomplish given goals</p> <p>Begin to choose appropriate tools and techniques for a given task, being able to justify and evaluate their choices. (IVA)</p> <p>Begin to refine and make changes to images according to the audience. (IVA)</p> <p>Combine images, video and animations with other media e.g. text and sound. (IVA)</p> <p>Use editing tools to refine and improve outcomes and performances. (S)</p> <p>Choose the appropriate sensors to capture and record data in the course of an investigation. (DL)</p> <p>Use a database to answer straightforward questions by searching, matching and ordering the contents of a single field. (DH)</p> <p>Change the contents of cells in a pre-prepared spreadsheet and explore the consequences (SSM)</p> <p>Choose appropriate tools and techniques for a given task, being able to justify and evaluate their choices. (S)</p> <p>Begin to refine and make changes to sound and musical phrases according to the audience.(S)</p> <p>Collect, organise and present data and information in digital content. Create digital content to achieve a given goal through combining software packages and internet services to communicate with a wider audience e.g. blogging. Make appropriate improvements to solutions based on feedback received, and can comment on the success of the solution. Show an awareness of and can use a range of internet services e.g. VOIP (Voice over Internet Protocol)</p>			
	<p>Debug programs that accomplish specific goals</p>				
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Key for Lancashire Progressions:		TM = Text & Multimedia	IVA = Images, Video & Animation	S = Sound	EC = Electronic Communication
DR = Digital Research		DH = Data Handling	DL = Data Logging	LC = Logo & Control	SSM = Simulations & Spreadsheet modelling