

Computing	EYFS	KS1	LKS2	UKS2
Digital literacy	<p>Recognise that a range of technology is used for different purposes.</p> <p>With support, children can log in and out of devices.</p> <p>Children know and can talk about how technology can benefit their health and wellbeing but also it can affect this e.g. screen time, fine motor skills.</p> <p>Children will engage in Safer Internet Day activities and begin to explore online safety.</p>	<p>Children will log in and out of devices independently.</p> <p>Children will learn how to create a strong password.</p> <p>When using the internet to search for images, the children will learn what to do if they come across something online that worries them or makes them feel uncomfortable.</p> <p>Children will recognise how actions on the internet can affect others.</p> <p>Children will be introduced to the concept of a digital footprint and discuss how to be safe when posting online.</p> <p>Children will understand how to stay safe when talking to people online and what to do if they hear or see something online that makes them feel uncomfortable or upset.</p> <p>Children will explore and discuss the safety and reliability of information shared online.</p>	<p>Children can recognise that different information is shared online including facts, beliefs and opinions.</p> <p>Children will learn how to identify reliable information when searching online.</p> <p>Children will learn about cyberbullying, social media and impact technology can have on mood.</p> <p>Children will recognise that information on the internet and through emails might not be genuine and that some sources are more trustworthy than others.</p> <p>Children will learn to make their own judgements about the accuracy of online searches.</p> <p>Children will recognise what appropriate behaviour is when collaborating online.</p> <p>Children will reflect on the positives and negatives on being online.</p> <p>Children will identify respectful and disrespectful online behaviour.</p>	<p>Children will identify possible dangers online and learn how to stay safe.</p> <p>Children will evaluate the pros and cons of online communication.</p> <p>Recognise that information on the internet might not be true or correct and learning ways of checking validity.</p> <p>Know what to do if they or a peer experience bullying online.</p> <p>Learn how to use an online community safely.</p> <p>Children will learn about the dangers of sharing online and ensuring they use secure passwords. They will learn how to create these.</p> <p>Children will use online search engines safely and effectively.</p> <p>Recognise the importance of updating software to prevent data corruption and hacking.</p>

		<p>Children will learn to be respectful of others when sharing online, ensuring they ask for permission before sharing content.</p> <p>Children will learn different strategies for checking if something they have read online is true.</p>		
Information technology	<p><u>Software</u> Children will use paintz.net a simple paint tool to create digital art.</p> <p>Children will access digital art tools on mini mash.</p> <p>Children will use the mouse to click and drag.</p> <p>Children will practise writing their name and a simple sentence on desktop publishing software.</p>	<p><u>Software</u> Children will use a basic range of tools within graphic editing software.</p> <p>Children will take and edit photographs, considering orientation, light and focus.</p> <p>Children will develop control of the mouse through dragging, clicking and resizing of images to create different effects.</p> <p>Children will develop an understanding of different software tools.</p> <p>Children will develop word processing skills, including altering text. Children will identify how they keyboard can be used to create shortcuts.</p> <p>Children will use word processing software (Google docs) to type and reformat text, including editing existing templates.</p>	<p><u>Software</u> Children will take photographs and record stop frame animations to tell a story.</p> <p>Use software (iMovie) to edit and enhance their video adding music, sounds and text on screen with transitions.</p> <p>Children will create their own audio podcast, recording audio, editing and saving files.</p> <p>Use software to collaboratively work with others.</p> <p><u>Internet searches</u> Children will understand why some results come before others when searching.</p> <p>Children will use keywords effectively to search for information on the internet.</p> <p>Understand that information found by searching the internet is not all grounded in facts.</p>	<p><u>Software</u> Children will use logical thinking to explore software more independently, making predictions based on their own previous experiences.</p> <p>Use software to create their own 3D vector diagrams.</p> <p>Identify ways to improve and edit programs, videos and images.</p> <p>Use search and word processing skills to create their own web pages.</p> <p><u>Internet searches</u> Children will develop searching skills to help find relevant information on the internet.</p> <p>Learn how to use search engines effectively to find information, focussing on keyword searches and evaluate search returns.</p>

	<p>Children will have the opportunity to explore, use and refine a variety of artistic effects to express their ideas and feelings.</p> <p><u>Data</u> Children will represent data through sorting and categorising objects in unplugged scenarios.</p> <p>Children can represent data through physical pictograms and charts.</p> <p>Children can be introduced to the concept of branch databases through questioning and sorting objects into groups.</p>	<p>Children will use software (Scratch Jr) to create their own animations.</p> <p>Children will create their own digital art pieces and images.</p> <p><u>Internet searches</u> Children will recognise devices that are connected to the internet.</p> <p>Children will understand that we are connected to others when using the internet.</p> <p>Children will search for and download appropriate images from the internet safely to use in a document.</p> <p>Children will understand what online information is.</p> <p><u>Data</u> Children will understand that technology can be used to represent data in different ways: pictograms, tables, pie charts, bar charts, block graphs etc.</p> <p>Children will use software to explore and create pictograms and branching databases (J2data).</p>	<p>Search the internet for data.</p> <p><u>Data</u> Children will create and interpret charts and graphs to understand data (J2data).</p> <p>Children will use data loggers to gather information using sensors.</p> <p>Interpret data they have collected.</p> <p><u>Wider use of technology</u> Children will recognise how social media platforms are used to interact.</p> <p>Understand that software can be used collaboratively online to work as a team.</p>	<p>Understand how search engines work.</p> <p><u>Data</u> Children will understand how data is collected and collect data in real time.</p> <p>Record data in a spreadsheet independently.</p> <p>Sort data in a spread sheet to compare using the sort by... option.</p> <p>Create formulas and sort data within spreadsheets.</p> <p><u>Wider use of technology</u> Children will learn about different forms of communication that have developed with the use of technology.</p> <p>Learn about the internet of things and how it had led to big data.</p>
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Computer Science	<p><u>Hardware</u> Children will have the opportunity to explore how different things work.</p> <p>Children will have the opportunity to operate a camera or tablet to take photographs of meaningful creations or moments.</p> <p>Children will explore different hardware to introduce</p>	<p><u>Hardware</u> Children will have greater control when taking photos on tablets,</p> <p>Children will explore different technology to understand how it works.</p> <p>Children will recognise that some devices are input devices and others are output devices.</p> <p>Children will learn how we know that technology is doing what we want it to do via the output.</p> <p>Children will understand what a computer is and that it is made up of different components.</p>	<p><u>Hardware</u> Children will understand what the different components of a computer do and how they work together.</p> <p>Children will learn about routers and different computer networks.</p> <p>Draw comparisons across different types of computers.</p> <p>Understand that weather stations use sensors to gather and record data which predicts the weather.</p> <p><u>Network and data representation</u> Children understand the role of the key components of a network.</p>	<p><u>Hardware</u> Children will learn that external devices can be programmed by a separate computer.</p> <p>Children will program external devices including Crumble and Micro-bit.</p> <p><u>Network and data representation</u> Children will understand that computer networks provide multiple services.</p> <p>Learn the vocabulary associated with data (data and transmit).</p> <p>Learn the different coding languages using Microsoft MakeCode, Scratch and Python.</p> <p><u>Computational thinking</u></p>

<p>relevant vocabulary.</p> <p>Children will recognise and identify familiar letters and numbers on a keyboard.</p> <p>Children will develop basic mouse skills such as moving and clicking.</p> <p>Children will develop their small motor skills.</p> <p><u>Computational Thinking</u> Children will use logical reasoning to understand simple instructions and predict the outcome.</p> <p><u>Programming</u></p>	<p>Children will recognise that buttons cause effects, and that technology follows instructions.</p> <p>Children will locate the keys are on the keyboard.</p> <p>Children will develop confidence with the keyboard and the basics of touch typing.</p> <p><u>Computational Thinking</u> Children will learn that decomposition means breaking a problem down into smaller parts.</p> <p>Children will use decomposition to solve unplugged challenges.</p> <p>Children will use logical reasoning to predict he behaviour of simple programmes.</p> <p>Children will follow a basic set of instructions.</p> <p>Children will explain what an algorithm is. Children will follow an algorithm.</p> <p>Children will assemble a series of instructions into an algorithm.</p>	<p>Identify the key components within a network, including whether they are wired or wireless.</p> <p>Understand that websites and videos are flies that are shared from one computer to another.</p> <p>Learn how data is transferred.</p> <p>Understand how networks work and their purpose.</p> <p>Understand that computer networks provide multiple services, such as the World Wide Web and opportunities for communication and collaboration.</p> <p><u>Computation thinking</u> Children will identify patterns through unplugged activities.</p> <p>Use repetition in programs.</p> <p>Use logical reasoning to explain how simple algorithms work.</p> <p>Explain the purpose of an algorithm.</p> <p>Form algorithms independently.</p> <p>Use decomposition to understand the purpose and break down the code.</p>	<p>Children will decompose a program into an algorithm.</p> <p>Predict how software will work based on previous experience.</p> <p>Use past experiences to solve new problems.</p> <p>Write increasingly complex algorithms for purpose.</p> <p><u>Programming</u> Program an animation.</p> <p>Develop their programming skills as they work.</p> <p>Confidently use loops in their programming.</p> <p>Use a more systematic approach to debugging code. Justifying what is wrong and how it can be corrected.</p> <p>Debug quickly and effectively to make a program more efficient.</p> <p>Write code to create a desired effect.</p> <p>Use a range of programming commands. Use repetition within a program.</p>
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Shine as Lights in the World
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Computing progression



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