### <u>Curriculum Progression Document – Computing</u>

	<u>Digital Literacy</u>	Information Technology	Online Safety	Computer Science
<u>EYFS</u>	Show resilience and perseverance in the face of a challenge.	Develop their small motor skills so that they can use a range of tools competently, safely and confidently.	Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of screen time	<ul> <li>Use help to work out problems and how things work and why they might happen.</li> <li>Continue, copy and create repeated patterns.</li> </ul>
Year 1	<ul> <li>to access different types of media content on their device. Including; sound, images, books, podcasts/ audiobooks and video via the web.</li> <li>about the uses and purpose of technology in the classroom, at home, work and the world around them.</li> </ul>	<ul> <li>to create different types of digital content (short video, ebook or presentation).</li> <li>to combine text and images in a document that showcases learning or tells a story.</li> <li>how they can use a search engine to find answers and different types of media category e.g. images, book, videos.</li> </ul>	<ul> <li>how to access and search the web.</li> <li>to identify people they can trust and who they can ask for help when using the internet.</li> <li>to send a digital message.</li> <li>how they should behave and interact with others in the online world</li> </ul>	<ul> <li>to explore algorithms and sequencing of instructions.</li> <li>to read, follow and create a simple sequence algorithm.</li> <li>about signing into a device or online platform.</li> <li>how they can use a search engine to find answers and different types of media e.g. videos.</li> </ul>
<u>Year 2</u>	where different types of media content can be found online. Including;	to create a presentation or basic digital book that is well designed, contains	about safe and unsuitable sites/apps. e.g. PEGI rating.	about writing algorithms that can be turned into programs.

	sound, images, books, podcasts/ audiobooks and video via the web.  • to explore their own use of the internet and why it is important to stick to the rules.	formatted text, images and presents information.  to read a simple database to find information.  the basic skills of searching and navigating the results in a search engine to answer questions.	<ul> <li>to talk to a trusted adult before sharing personal information online and using strong passwords.</li> <li>that the characters and people they interact with may be computer generated / including games.</li> <li>the differences between the Internet and the physical world.</li> </ul>	<ul> <li>to implement their algorithm as a program on a digital device or programmable toy/ robot.</li> <li>multiple services use the internet e.g. email, web and streaming.</li> <li>the basic skills of searching and navigating the results in a search engine.</li> </ul>
Year 3	<ul> <li>how to make judgements about the usefulness and accuracy of information.</li> <li>about the term 'fake news'.</li> <li>about what copyright is and why we have copyright laws.</li> <li>to recognise copyright material.</li> <li>that the internet is a computer network.</li> </ul>	<ul> <li>to create digital content using a range of mixed tools/media and how to improve its design.</li> <li>to create a plan/storyboard when producing digital content.</li> <li>to use search engines to collect information.</li> </ul>	<ul> <li>the SMART rules about using the internet safely and responsibly.</li> <li>what personal information is and what they shouldn't be sharing.</li> <li>they should pause before posting and consider the potential consequences.</li> </ul>	<ul> <li>to create a detailed flow diagram using the correct symbols.</li> <li>to turn an algorithm into a simple program on a digital device.</li> <li>to send an email and understands how this works. how information travels through computer networks.</li> <li>about testing the program and recognising</li> </ul>

	that the internet can provide multiple services, such as the world wide web, streaming music/ video and email.		who they should seek help from about online concerns.	<ul> <li>when it needs to be debugged.</li> <li>that search engines try to put the most useful websites at the top.</li> </ul>
<u>Year 4</u>	<ul> <li>more about what Fake News is, it's purpose and that Fake News can be found on all media.</li> <li>how to identify Fake News.</li> <li>that data can be manipulated to make Fake News appear to be true</li> <li>to differentiate between apps that use the Internet, the school network or that are self-contained on a device.</li> <li>to use computing to communicate and collaborate.</li> </ul>	<ul> <li>to produce documents, media and presentations with increasing independence and competency that present data/ information.</li> <li>about new forms of technology E.g. AR, Virtual Reality, Wearable Technology etc.</li> <li>that not all sources of information including websites are accurate and can check information using a different sites.</li> </ul>	<ul> <li>the safety features of websites and apps.         e.g. block or report.</li> <li>they should report concerns to a trusted adult.</li> <li>not to reveal private information to a person they know only online.</li> <li>that friends/followers profiles may not reflect the truth about their real lives.</li> </ul>	<ul> <li>to design a simple algorithm to show a reallife situation.</li> <li>about the valuable skills of abstraction and decomposition when tackling more complex problems.</li> <li>to recognise the main components (hardware) which allow computers to join and form a network.</li> <li>that search engines use algorithms to sort websites.</li> </ul>
<u>Year 5</u>	about how and why information found on some sites will be biased.	to produce digital content in a given format e.g. podcasts, videos, AR,	to demonstrate and explain the importance of	to explore problem solving and decomposition.

	<ul> <li>how to source copyright free materials to use in their digital projects.</li> <li>about different online communication tools/apps and how they could be used for different purposes e.g. work and social.</li> <li>about working in a group using collaborative tools</li> </ul>	virtual reality, 3D, digital music or illustrations.  • to use a spreadsheet / database to collect, record data and to use simple formulae.  • check the reliability of information on the internet.	communicating kindly and respectfully.  about the negative online behaviours such as bullying, trolling, griefing and harassment.  about empathy and the effects of online bullying.  anything they post online can be seen, re-shared, re-used and may have a negative effect on others.  how to avoid being tricked by scammers online. E.g. Phishing emails. The child can explain why an app may be free but have in-app purchasing and what that is.	<ul> <li>to independently plan, write and test their algorithms and create more complex programs, debugging as needed.</li> <li>about controlling / simulating physical systems and using sensors with multiple outcomes</li> <li>about software, hardware and types of connected computers.</li> <li>about how data travels via the internet including binary.</li> <li>key skills for using a search engine.</li> <li>about the settings that can alter your search results.</li> </ul>
<u>Year 6</u>	<ul> <li>to explore in more depth the legal and moral reasons not to plagiarise or infringe copyright and the impact it can have</li> </ul>	<ul> <li>to create digital storyboards with a complete narrative of the project or investigation</li> </ul>	<ul> <li>the advice they should/would give friends about making good choices online.</li> </ul>	<ul> <li>to create complex algorithms and turn their designs into a program (incorporating variables, procedures and different</li> </ul>

•	on the creator of the content.  about digital crimes and threats that might exist online. E.g. worms, trojans, viruses, spyware, ransomware and malware.	<ul> <li>to independently select, use and combine the appropriate technology/app tools to create effects that will have an impact on others and tell a story</li> <li>to use complex searches,</li> </ul>	<ul> <li>the consequences of making poor online choices e.g. Online bullying, Inappropriate comments</li> <li>the way men and women can be stereotyped in movies</li> </ul>	forms of input and output).  • in more detail about how information/data is transported on the Internet and between computers using packets and IP addresses.  • about the opportunities
•	software and how they can help protect devices from infection.  advanced web	filters and advanced tools to find, select and use information	<ul> <li>how to block and report inappropriate comments or behaviour online.</li> </ul>	computer networks and the internet offer for communication and collaboration.
	terminology e.g. firewall, security updates, pop up blocker, scams, phishing, HTTPs, location based settings, in app purchasing, trolling, filtering etc.			<ul> <li>to explore advanced features within search engines and learn to use them effectively.</li> </ul>