**Networks and Using the Internet - Progression of Skills – Spring 2**

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| **Age Related Expectations – Computer Science Theory** | | | | | | | |
| **EYFS**  **Expectations** | **Year 1**  **Expectations** | **Year 2**  **Expectations** | **Year 3**  **Expectations** | **Year 4**  **Expectations** | **Year 5**  **Expectations** | **Year 6**  **Expectations** | **Beyond Year 6**  **Expectations** |
| I can identify the main parts of a computer system *(monitor, mouse, keyboard, printer etc).* | I can recognise and name common input and output devices of a computer system. | I can explain the functions of the main components of a computer system. | I understand the difference between hardware and software and their roles within a computer system. | I recognise the main component parts of hardware which allow computers to join and form a network. | I know that computers collect data from various input devices. | I understand why and when computers are used and understand the main functions of the operating system. | I understand how binary numbers work. |
| I can recognise that a range of technology is used in places such as homes and schools. | I can recognise the difference between old and new technology *(e.g. typewriter and smart phone).* | I understand that my creations *(e.g. programs)*, need similar skills to the adult world *(e.g. the ParentPay etc used for collecting money for school trips).* | I can use communication tools to attach files and use tools respectfully and with good etiquette. | I understand that network and communication components can be found in many different devices which allow them to join the internet. | I know the importance of computer networks and how they help solve problems and enhance communication. | I know the difference between physical, wireless and mobile networks. | I know about different Computing careers. |
| I can share my experiences of observing technology in school and beyond the classroom. | I can explain how people interact with computers *(e.g cashpoint machine, self-service scanners etc)*. | I can describe uses of technology beyond school. *(e.g. I can explain how a supermarket or airport uses ICT to help it operate).* | I can identify different ways that the internet can be used for communication. | I understand how the Internet works, including how it is structured and how data travels along it. | I recognise the main dangers that can be perpetuated via computer networks. | I can explain the difference between the internet and the World Wide Web. | I understand the history of WWII computer code breaking. |
|  | I can understand that the internet contains websites with information on them. | I can identify uses of technology beyond school (e.g. wearable technology, robots, drones, simulations etc) and discuss reasons why they are helpful. iWristband | I can confidently share my own experiences of technology in school and beyond the classroom. | I understand how search engines operate, including how they rank results. | I can use the most appropriate form of online communication according to the digital content. | I can explain what a WAN *(Wide Area Network)* and LAN *(Local Area Network)* is and describe the process of how access to the internet in school is possible. | I can describe the positive and negative impact of technology on society, including on people’s: spiritual, moral, social and cultural development. |
|  | I can select and use pre-chosen websites safely. | I can use the internet to find information and answers to questions. | I can find and begin to select relevant information when browsing. | I can show an awareness of tasks best completed by humans or computers. | I can find out about the history of computing, including pioneers in developing different technologies. | I can describe the services offered by the Internet. |  |
|  |  |  |  |  | I can carry out simple lines of inquiry using different Search Engines with support. | I can carry out simple lines of inquiry using different Search Engines with increasing independence. |  |

\* Children should also **understand and apply the vocabulary related to this strand of the curriculum** for their year group.

This unit also focuses on significant figures within Computing including Tim Berners-Lee (WWW), Mark Zuckerberg (Facebook) and Grace Hopper (Programming).