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| Computing Systems and Networks Curriculum  Whether stand-alone, connected in a local network or plugged into the internet, computers are central to many everyday tasks and routines. It’s important for young people to develop their knowledge of how these devices work, so that they can appreciate the impacts that computers and networks have on the world around them.  Taught as one session each half term. Usually at the end of a half term. |

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|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Strand | Technology around us. | IT around us | Connecting Computers | The Internet | Systems and searching | Communication and collaboration |
| Strand Overview. | Developing understanding of technology and how it can help. Becoming more familiar with the different components of a computer by developing their keyboard and mouse skills. | How information technology is being used for good. Initial focus on IT in the home, explore how IT benefits society in places such as shops, libraries, and hospitals. Whilst discussing the responsible use of technology. | Develop understanding of digital devices, with an initial focus on inputs, processes, and outputs. Comparing digital and non-digital devices, introducing computer networks that include network infrastructure devices like routers and switches. | Appling current knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. That the World Wide Web is part of the internet. | Developing understanding of computer systems and how information is transferred between systems and devices. Consider small and large-scale systems. Explain the input, output, and process aspects of a variety of different real-world systems. | Explore how data is transferred over the internet. Learners initially focus on addressing, before they move on to the makeup and structure of data packets. How the internet facilitates online communication and collaboration. Learn how to communicate responsibly. |
| Objectives | Locate examples of technology in the classroom.  How technology examples help us.  To identify a computer and identify and name its main parts | To recognise the uses and features of information technology.  To sort school IT by what it’s used for and that that some IT can be used in more than one way.  To identify IT and its uses beyond school.  To demonstrate how IT devices work together | To explain that digital devices accept inputs and produce outputs.  To identify input and output devices.  To recognise how digital devices can change the way we work.  To explain how a computer network can be used to share information.  To explore how digital devices can be connected.  To recognise the physical components of a network | To describe how networks physically connect to other networks  To recognise how networked devices make up the internet  To outline how websites can be shared via the World Wide Web  To describe how content can be added and accessed on the World Wide Web  To recognise how the content of the WWW is created by people | To explain that computers can be connected together to form systems.  To recognise the role of computer systems in our lives.  To compare results from different search engines.  To describe how search engines select results and how they are ranked.  To recognise why the order of results is important, and to whom. | To explain the importance of internet addresses.  To recognise that data is transferred using agreed methods.  To recognise how data is transferred across the internet - that data is transferred over networks in packets.  To recognise how to access shared files stored online.  To explain that the internet allows different media to be shared. |
| Teach computing Resources | <https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-technology-around-us> | <https://teachcomputing.org/curriculum/key-stage-1/computing-systems-and-networks-it-around-us/what-is-it> | <https://teachcomputing.org/cu.rriculum/key-stage-2/computing-systems-and-networks-connecting-computers> | <https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-the-internet> | <https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-sharing-information> | <https://teachcomputing.org/curriculum/key-stage-2/computing-systems-and-networks-communication> |

