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| **Subject Yearly Overview 2021-2022** |
| **Subject:** **ICT Y9** | **TOPIC** | **COMPONENT** | ***Notes:*** *Why are you delivering this topic at this time of year?* |
| **Autumn 1** | **Digital systems :** Network Performance | Understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems |  |
| **Autumn 2** | **Data Representation :** Computers and binary | Understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits |  |
| **Spring 1** | **Creating digital solutions :** Robotics and embedded systems | Understand several key algorithms that reflect computational thinking [for example, algorithms for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem |  |
| **Spring 2** | **Creating digital solutions :** Robotics and embedded systems cont… | Understand several key algorithms that reflect computational thinking [for example, algorithms for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem |  |
| **Summer 1** | **Creating digital solutions :** Programming a solutions | Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions |  |
| **Summer 2** | **Interactions and impacts:** Connected or distracted, Informed or misinformed | Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns |  |