



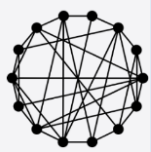


# Computing Subject Progression:

|   |  | Nursery & Reception   | Year 1 & 2  | Year 3 & 4  | Year 5 & 6  |
|---|--|---|---|---|---|
|    | <b>Data and Information</b>                    | Children begin to develop an awareness of the concept of data by engaging with simple digital activities, such as sorting objects or images using basic touch-screen apps. They start to understand that information can be collected and stored digitally.                                       | Children begin to collect simple data, such as counting objects or conducting surveys (e.g., favourite colours). They represent data visually using pictograms and basic bar charts. They also begin to understand the idea of storing data on a computer or device.                | Children collect, organise, and display data using spreadsheets or basic database software. They learn how to interpret and analyse data, recognising patterns and drawing conclusions. They also start to understand how data is stored and managed in digital formats.  | Children work with more complex datasets and use tools like Excel or Google Sheets to manipulate and analyse data. They create graphs and charts, interpret data with more accuracy, and use formulas. They explore concepts like sorting and filtering data, learning about how large-scale data is used in real-world applications. |
|    | <b>Creating Media</b>                          | Children engage with simple digital tools to create media, such as drawing pictures or making simple recordings using apps. They begin to understand the use of images, sound, and text in creating digital content.  | Children create basic multimedia content, such as digital drawings, slideshows, or recordings. They experiment with combining text, images, and sound to communicate ideas. They also start to recognise the different types of digital media, such as videos, pictures, and audio. | Children create more advanced multimedia content, including presentations, animations, videos, and audio recordings. They learn to use software tools to edit and refine their digital creations, such as cropping images, adjusting sound levels, or sequencing frames in an animation. They begin to understand the concept of digital storytelling.  | Children create complex multimedia projects, such as websites, or video productions. They combine multiple media types (e.g., text, video, images, audio) and learn how to edit and enhance them using advanced software. They also explore copyright and fair use when creating and sharing digital media.                           |
|    | <b>Using Technology Safely and Responsibly</b> | Children begin to understand that technology should be used safely, such as not touching inappropriate content or sharing personal information. They are introduced to the concept of keeping personal information private.   | Children learn about basic online safety rules, such as not sharing personal details and recognising safe websites. They also begin to understand the idea of digital footprints and the importance of treating others with respect online.   | Children develop an understanding of privacy settings, passwords, and responsible sharing online. They learn about the potential risks of using the internet, such as cyberbullying and scams, and how to report concerns. They also discuss the importance of respecting others' digital rights and content.   | Children learn about the importance of securing personal data, using strong passwords, and protecting online identities. They explore topics like online reputations, the impact of social media, and the consequences of oversharing. They also discuss how to navigate digital spaces responsibly and safely.                       |
|  | <b>Programming</b>                             | Children engage in early programming concepts through simple activities, such as following instructions to make characters move or creating simple patterns. They begin to develop logical thinking by completing basic tasks that require following a sequence of steps.                         | Children engage in early programming concepts through simple activities, such as following instructions to make characters move or creating simple patterns. They begin to develop logical thinking by completing basic tasks that require following a sequence of steps.           | Children learn to create more complex programs using block-based programming languages. They can design interactive stories, games, and animations by combining sequences of actions, loops, and conditional statements. They also begin to debug their code when it doesn't work as expected.  | Children progress to more advanced programming languages, and start to work with text-based coding. They design and create interactive programs, games, or simulations, using more complex concepts such as variables, functions, and events. They also learn about debugging and optimising code to make it more efficient.          |
|  | <b>Computer Systems and Networks</b>           | Children start to recognise basic computer devices (e.g., monitor, keyboard, mouse, tablet) and understand their function. They engage in simple activities that involve interacting with digital tools, beginning to understand the concept of technology as a tool to help them complete tasks. | Children start to understand the basics of how computers and the internet are connected, recognising the role of the internet in sharing information.   | Children explore how computer systems work, understanding components such as the CPU, memory, storage and input and output devices. They learn about the basic concept of networks, including how devices can connect to one another (e.g., Wi-Fi, the internet). They also understand how the internet is used to share data and communicate globally. | Children deepen their understanding of computer systems and networks by learning about how the internet works. They explore topics such as cloud computing, data transfer, and online services. They also understand the importance of security in networks and how to protect devices from viruses or cyberattacks.                  |