

## Teach Computing School Overview

Topic	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Computing Systems &amp; Networks</b>	Understanding what a computer is and what it does. Recognising that it's made up of different components. Learning how buttons and devices work with simple instructions.	Recognising that some devices are input, output, or both. Knowing the keyboard layout and where keys are.	Drawing and labelling components of computers and their functions. Exploring how technology is used in daily life.	Understanding different types of computers, including tablets and phones, and their uses. Comparing components in various devices.	Learning the difference between ROM and RAM, and identifying sizes of files. Understanding basic CPU cycles: fetch, decode, execute.	Learning about the history and evolution of computers. Understanding the impact of future technologies like AI, VR, and RFID.
<b>Programming</b>	Recognising simple algorithms and following instructions step-by-step. Learning basic mouse control and typing.	Learning basic coding concepts like sequencing and simple algorithms. Understanding input/output in simple programs.	Creating simple sequences in code and debugging when needed. Exploring block-based coding tools.	Developing more complex sequences with branching and loops. Learning to test and debug in longer code sequences.	Understanding and creating programs with variables, loops, and functions. Testing and debugging for efficiency.	Writing and refining programs with more complex variables, loops, and functions. Debugging with logical reasoning and problem-solving skills.
<b>Data &amp; Information</b>	Collecting and sorting simple data, such as images or colours, into groups.	Learning how to create basic pictograms and charts to represent data. Using simple software to create visuals.	Understanding how data is stored and collected. Exploring digital methods to organize information.	Learning about the role of data in networks and how it travels. Understanding packets and data formats like text and image.	Learning vocabulary for data transmission and how messages are sent and received. Understanding binary and ASCII.	Understanding network services, how they function, and the importance of data privacy and cybersecurity.
<b>Creating Media</b>	Exploring simple creative tools like digital drawing programs and learning to type letters and numbers.	Creating simple presentations, editing images, and typing short texts with basic formatting.	Learning to use text and image editing software to create documents and presentations.	Developing skills in multimedia, combining text, images, and sound for projects. Learning basic	Using more advanced software to create multimedia projects, focusing on design and layout.	Creating high-quality digital presentations, combining advanced media elements, and ensuring

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				video/audio editing.		accessibility for users.
<b>Programming (Bee-Bots/Robotics)</b>	Giving simple directional commands using basic coding tools like Bee-Bots.	Building on commands by programming longer sequences for robots to follow.	Understanding directional commands, loops, and sequences in robot movement and simple control.	Learning to debug complex movement commands in robotics projects, and understanding how robots use sensors.	Creating advanced programs for robotic control with sequences, loops, and conditional statements.	Designing and refining complex robotic programs that involve multiple loops, conditions, and debugging strategies.
<b>Internet Safety</b>	Recognising what is safe to share online and what is private.	Understanding online behaviour and respecting privacy when using the internet.	Learning how to identify secure websites and why we use passwords.	Recognising risks online, such as cyberbullying, and learning how to report issues.	Understanding the importance of digital identity and protecting personal information online.	Applying advanced digital safety practices, understanding the long-term impact of online behaviour, and learning about digital citizenship.