



Computing Long Term Plan 2026-2027

	AUTUMN	SPRING	SUMMER
Year 3	Computing systems and networks: Connecting Computers Pupils are challenged to develop their understanding of digital devices, with an initial focus on inputs, processes, and outputs. They start by comparing digital and non-digital devices, before being introduced to computer networks that include network infrastructure devices like routers and switches.	Programming: Sequence Sounds Pupils will explore the concept of sequencing in programming through Scratch, beginning with an introduction to the programming environment. They will be introduced to a selection of motion, sound, and event blocks which they will use to create their own programs, featuring sequences. The final project is to make a representation of a piano. The unit is paced to focus on all aspects of sequences, and make sure that knowledge is built in a structured manner. Pupils also apply stages of program design through this unit.	Creating Media: Stop-frame Animation Pupils will use a range of techniques to create a stop-frame animation using tablets. Next, they will apply those skills to create a story-based animation. This unit will conclude with learners adding other types of media to their animation, such as music and text.
Year 4	Computing systems and networks: The Internet Pupils will apply their knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and will be given opportunities to explore the World Wide Web for themselves in order to learn about who owns content and what they can access, add, and create. Finally, they will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information.	Creating Media: Photo editing Pupils will develop their understanding of how digital images can be changed and edited, and how they can then be resaved and reused. They will consider the impact that editing images can have, and evaluate the effectiveness of their choices.	Programming: Repetition in Shapes This programming units looks at repetition and loops within programming. Pupils will create programs by planning, modifying, and testing commands to create shapes and patterns. They will use Logo, a text-based programming language.

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Year 5	Computing systems and networks: Systems and Sharing In this unit, pupils develop their understanding of computer systems and how information is transferred between systems and devices. Learners consider small-scale systems as well as large-scale systems. They explain the input, output, and process aspects of a variety of different real-world systems. Pupils discover how information is found on the World Wide Web, through learning how search engines work (including how they select and rank results) and what influences searching, and through comparing different search engines.	Creating Media: Introduction to Vector Drawing In this unit, pupils start to create vector drawings. They learn how to use different drawing tools to help them create images. Pupils recognise that images in vector drawings are created using shapes and lines, and each individual element in the drawing is called an object. Pupils layer their objects and begin grouping and duplicating them to support the creation of more complex pieces of work.	Programming: Selection in Physical Computing In this unit, pupils will use physical computing to explore the concept of selection in programming through the use of the Crumble programming environment. Pupils will be introduced to a microcontroller (Crumble controller) and learn how to connect and program components (including output devices- LEDs and motors) through the application of their existing programming knowledge. Pupils are introduced to conditions as a means of controlling the flow of actions and make use of their knowledge of repetition and conditions when introduced to the concept of selection (through the if, then structure).
Year 6	Computing systems and networks: Communication and Collaboration In this unit pupils explore how data is transferred over the internet. Pupils initially focus on addressing, before they move on to the makeup and structure of data packets. Learners then look at how the internet facilitates online communication and collaboration; they complete shared projects online and evaluate different methods of communication. Finally, they learn how to communicate responsibly by considering what should and should not be shared on the internet.	Creating media: 3D Modelling Pupils will develop their knowledge and understanding of using a computer to produce 3D models. Pupils will initially familiarise themselves with working in a 3D space, moving, resizing, and duplicating objects. They will then create hollow objects using placeholders and combine multiple objects to create a model of a desk tidy. Finally, Pupils will examine the benefits of grouping and ungrouping 3D objects, then go on to plan, develop, and evaluate their own 3D model of a building. 3D models can then be printed using the 3D printer in school, bringing the pupils' designs to life in the real world.	Programming: Sensing (Micro:Bit) This unit brings together elements of all the four programming constructs: sequence , repetition, selection and variables. It offers pupils the opportunity to use all of these constructs in a different, but still familiar environment, while also utilising a physical device — the micro:bit. The unit begins with a simple program for pupils to build in and test within the new programming environment, before transferring it to their micro:bit. Pupils then take on three new projects in Lessons 2, 3, and 4, with each lesson adding more depth.