

## Computing Long Term Plan

Year Group: 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Fine motor skills	Programming: All about instructions	Computer systems and networks: Exploring Hardware	<b>Programming:</b> Beebots	<b>Data Handling:</b> Introduction to Data	Computer systems and Networks: Using a Computer
Year 1	<p><b>Computing Systems and Networks</b> Improving mouse skills</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programming 1 –</b> Algorithms Unplugged</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Skill Showcase –</b> Rocket to the Moon</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Creating Media –</b> Digital Imagery</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Data Handling</b> Introduction to Data</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programming 2:</b> Beebot</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>
Year 2	<p><b>Computing Systems and Network 1 –</b> What is a computer?</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programming 1 –</b> Algorithms and Debugging</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Computing Systems and Network 2 –</b> Word Processing</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programming 2 –</b> Scratch Jr</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Creating Media –</b> Stop Motion</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Data Handling –</b> International Space Station</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>

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Year 3	<p><b>Computer Systems and Networks 1 – Networks and the Internet</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Computer Systems and Networks 2 – Emailing</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programming - Scratch</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Computer Systems and Networks 3 – Journey Inside the Computer</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Creating Media – Video Trailers</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Data Handling – Comparison Cards Databases</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>
Year 4	<p><b>Computing Systems and Networks – Collaborative Learning</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programming 1 – Further Coding with Scratch</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Creating Media – Website Design</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Skills Showcase – HTML</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programming – Computational Thinking</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Data Handling – Investigating Weather</b></p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>

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Year 5	<p><b>Computing Systems and Networks;</b> Search Engines</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programing 1</b> Music</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Data Handling</b> Mars Rover 1</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Creating Media</b> Stop Motion Animation</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programing 2</b> Micro:Bit</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Skills Showcase</b> Mars Rover</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>
Year 6	<p><b>Computing Systems and Networks</b> Bletchley Park and the history of computers</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Computer Systems and networks:</b> Exploring AI</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Data Handling 1 –</b> Big Data 1</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Programming:</b> Intro to Python</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Data Handling 2 –</b> Big Data 2</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>	<p><b>Skills Showcase:</b> Inventing a product</p> <p>Online Safety session to be taught at the beginning of the topic and interwoven through all sessions.</p>

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### Key stage 1

Pupils should be taught to:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

### Key stage 2

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information



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- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.