Computing Long Term Plan 2020–21 ongoing

Rationale:

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Unplugged How to boss a computer	Programming Beebots Lunar buggy license	Programming Beebots 3d and Ipad	Paint program - type and image	Rapid Router intro to block code	African patterns On and offline pattern creation
Year 2	Bbot - Sequence and repetition	Algorithms unplugged and elegant Beebots	Ipad filming and laptop posters.	Scratch Junior introduction	Paint - Picture and text	Scratch Junior - Planning for coding
Year 3	Paint programs - Images and text	Scratch - Who's Talking?	Scratch - Who's still Talking?	Internet based research - Search and create a Power Point.	Microsoft Word - Rainforest posters about deforestation	Data or Information?
Year 4	Scratch Games 1 - Loops & conditionals	Introduction to networks, Search - criteria facts, copyright.	Scratch Games 2 - Conditionals	Data and Machine learning and Crumbles	Microsoft Power Point	Stop-Motion Animation

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	Networks & Search - What is a computer?	Scratch - Variables	Internet research and information retrieval	Kodu - Make your own world	Machine intelligence	Crumble (Physical computing)
Year 6	CS MBots	Digital Literacy – Critical thinking. How computers work.	CS Scratch Shapes - maths link	Embedded IT	Embedded IT	Embedded IT

	Progression of enquiry skills
KS1 (Y1/Y2)	1. **Technology in our lives** - I can explain why I use technology in the classroom, at home and in my community. 2. **E-safety** - I can agree and follow sensible e-safety rules (telling an adult if I see something unexpected or worrying online, being polite online, not everyone is who they say they are online, why keeping passwords private is important). 3. **Programming** - I can describe what actions I will need to do to make something happen and begin to use the word algorithm 4. **Handling data** - I can use technology to collect information, including photos, video and sound. I can present this to others. 5. **Multimedia** - I can use the keyboard on my device to add, delete and space text. I can also save and open files.
Lower KS2 (Y3/4)	1. **E-safety** - I can talk about ways to protect myself and my friends from harm online (only to comment positively online, choose a secure password, report a concern to an adult). 2. **Programming** - I can put programming commands into a sequence to achieve a specific outcome. I can also use repeat demands. 3. **Programming** - I can recognise an error in a program and debug it. 4. **Handling data** - I can plan, create and search a database to answer questions.

	5. **Multimedia** - I can use a keyboard confidently and make use of a spellchecker to write and review my work.
	6. **Multimedia** - I can combine a mixture of text, graphics and sound to share my ideas and learning.
Upper KS2 (Y5/6)	1. **E-safety** - I can explain the importance of following e-safety rules (reporting concerns to an adult, not spending too long online, communicating kindly and respectfully, use of a secure password).
	2. **Programming** - I can explain, program and evaluate each of the steps in my algorithm.
	3. **Programming** - I can deconstruct a problem into smaller steps, recognising similarities to solutions used before.
	4. **Handling Data** - I can choose an appropriate tool to help me collect data (spreadsheet and database).
	5. **Handling Data** - I can collect and present the data that I have collected.
	6. **Multimedia** - I can select, use and combine the appropriate technology tools to create effects that will have the desired impact on others.
	7. **Multimedia** - I can be digitally discerning and evaluate the effectiveness of my own work and the work of others.