Doing all the good we can

Computing Progression Overview

Year 1/2	Autumn A Why is Richmond Special?	Spring A What's it made of and why?	Summer A How do people tell their stories?	Autumn B How do I care for my body and mind?	Spring B What makes a good home?	Summer B Why is our environment precious?
	Algorithms *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 a series of instructions and plan a journey for a programmable toy.	**Create Programs** *Pupils should be taught to create and debug simple programs.* Create, store and retrieve digital content. Write a simple program and test it.	**Reasoning** *Pupils should be taught to use logical reasoning to predict the behaviour of simple programs.* Predict what the outcome of a simple program will be (logical reasoning).	**Safe Use** *Pupils should be taught to use technology safely and respectfully, keeping personal information private; identify where to go to for help and support when they have concerns about contact on the internet or other online technologies.*	**Uses of IT beyond school** *Pupils should be taught to recognise common uses of information technology beyond school.* Talk about some of the IT uses in their own home. Know how technology is used in school and outside of school.	**Using Technology** *Pupils should be taught to use technology purposefully to create, organise, store, manipulate and retrieve digital content.* Use a website and a camera. Record sound and play back. Understand that programs require

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	Understand that algorithms are used on digital devices.			Use technology safely. Keep personal information private. Know where to go for help if concerned.		precise instructions. Organise, retrieve and manipulate digital content.
Year 3/4	**Autumn A** **Why is Richmond special?**	**Spring A** **What is beneath us and why does it matter?**	**Summer A** **How do we get our message across?**	**Autumn B** **How do I care for my body and mind?**	**Spring B** **Why is history worth knowing?**	**Summer B** **How can I have my say?**
	Search Engines *Pupils should be taught to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in*	**Networks** *Pupils should be taught to understand the computer networks including the internet; how they can provide multiple services, such as the world*	**Using Programs** *Pupils should be taught to 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,*	**Safe Use** *Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify*	**Reasoning** *Pupils should be taught to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.*	**Create Programs** *Pupils should be taught to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve*

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	evaluating digital content. Use a range of software for similar purposes. Collect and present information. Select and use software to accomplish given goals. **Develop Programs** *Pupils should be taught to use sequence, selection, and repetition in programs ; work*	*wide web; and the opportunities they offer for communication and collaboration.* Navigate the web to complete simple searches. Know how to search for specific information and know which information is useful and which is not.	*systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.* Understand what computer networks do and how they provide multiple services. Produce and upload a podcast.	*a range of ways to report concerns about content and contact.* Use technology respectfully and responsibly. Know different ways they can get help if concerned. Recognise acceptable and unacceptable behaviour using technology.	Discern when it is best to use technology and where it adds little or no value. Make an accurate prediction and explain why they believe something will happen (linked to programming).	*problems by decomposing them into smaller parts.* Write programs that accomplish specific goals. Give an 'on-screen' robot specific instructions that takes them from A to B

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	with variables and various forms of input and output. Design a sequence of instructions, including directional instructions. Experiment with variables to control models.					
Year 5/6	**Autumn A** **Why is Richmond special?**	**Spring A** **Where does it come from and where does it go?**	**Summer A** **How do words make us feel?**	**Autumn B** **How do I care for my body and mind?**	**Spring B** **What legacy will I leave behind?**	**Summer B** **What makes a colourful world?**
	Create Programs Develop a program that has specific variables identified.	**Reasoning** Analyse and evaluate information	**Using Technology** Combine sequences of instructions and	**Safe Use** Understand that they have to make choices when using	**Reasoning** Analyse and evaluate information	**Create Programs** Use technology to control an external device.

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Computing Progression Overview

	Develop a sequenced program that has repetition and variables identified	reaching a conclusion that helps with future developments. Design algorithms that use repetition and 2-way selection.	procedures to turn devices on and off. Present the data collected in a way that makes it easy for others to understand.	technology and that not everything is true and/or safe. Be increasingly aware of the potential dangers in using aspects of IT and know when to alert someone if feeling uncomfortable.	reaching a conclusion that helps us with future developments. Design algorithms that use repetition and a 2-way selection.	Write a program that combines more than one attribute.