

Computing Progression Overview

Richmond Methodist Primary and Nursery School – Vertical Progression – Understanding the World – Technology - Computing overview						
Playing & Exploring - Engagement		Active Learning - Motivation		Creating & Thinking Critically - Thinking		
<ul style="list-style-type: none"> Finding out & exploring Playing with what they know Being willing to 'have a go' 		<ul style="list-style-type: none"> Being involved & concentrating Keep on trying Enjoying achieving what they set out to do 		<ul style="list-style-type: none"> Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking) 		
ELG None						
Focus	Algorithms	Creating programs	Using technology	Use of IT beyond school	Safe use	
Nursery	<ul style="list-style-type: none"> Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images 	<ul style="list-style-type: none"> Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets 	<ul style="list-style-type: none"> Knows that information can be retrieved from digital devices and the internet 	<ul style="list-style-type: none"> Knows how to operate simple equipment, e.g. turn on CD player, uses a remote control, can navigate touch-capable technology with support 	<ul style="list-style-type: none"> Know how to handle equipment safely Begin to know that they shouldn't use devices without supervision 	
Reception	<ul style="list-style-type: none"> Develops digital literacy skills by being able to access, understand and interact with a range of technologies 	<ul style="list-style-type: none"> Completes a simple program on electronic devices 	<ul style="list-style-type: none"> Can create content such as a video recording, stories, and/or draw a picture on screen 	<ul style="list-style-type: none"> Begin to list different IT in their home 	<ul style="list-style-type: none"> Begin to give reasons why we need to stay safe online Can use the internet with adult supervision to find and retrieve information of interest to them 	
Year 1 & 2	Autumn A Why is Richmond Special? We are Treasure Hunters RS 1.1 TW: Scratch	Spring A What's it made of and why? We are Astronauts RS 2.1 Introducing Word processing https://www.twinkl.co.uk/resource/tp-i-001-new-planit-computing-year-1-word-processing-skills-unit-pack	Summer A How do people tell their stories? We are Games Testers RS 2.2	Autumn B How do I care for my body and mind? Tw: Internet Safety Unit Y1/2 Introducing Word processing https://www.twinkl.co.uk/resource/tp-i-001-new-planit-computing-year-1-word-processing-skills-unit-pack	Spring B What makes a good home? Tw: Computer Skills Y1 TW: Presenting Skills https://www.twinkl.co.uk/resource/tp-i-0022-new-planit-computing-year-2-presentation-skills-unit-pack	Summer B Why is our environment precious? Tw: Internet Use Y2
NB. Every half term, children should revisit Autumn Term strategi	Safe Use <i>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</i>	Create Programs <i>Pupils should be taught to create and debug simple programs.</i> <ul style="list-style-type: none"> Create, store and retrieve digital content. Write a simple program and test it. 	Reasoning <i>Pupils should be taught to use logical reasoning to predict the behaviour of simple programs.</i> <ul style="list-style-type: none"> Predict what the outcome 	Safe Use <i>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.</i>	Uses of IT beyond school <i>Pupils should be taught to recognise common uses of information technology beyond school.</i> <ul style="list-style-type: none"> Talk about some of the IT uses in their own home. 	Using Technology <i>Pupils should be taught to use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i>



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<p>es to keep safe on-line.</p>	<p><i>on the internet or other online technologies.</i></p> <ul style="list-style-type: none"> • Use technology safely. • Keep personal information private. • Know where to go for help if concerned. <p>Algorithms <i>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.</i></p> <ul style="list-style-type: none"> • Create a series of instructions and plan a journey for a programmable toy. • Understand that algorithms are used on digital devices. 	<p><u>Internet Safety Week February</u></p>	<p>of a simple program will be (logical reasoning)</p>	<ul style="list-style-type: none"> • Use technology safely, • Keep personal information private. • Know where to go for help if concerned. • Begin to develop Word processing skills. 	<ul style="list-style-type: none"> • Know how technology is used in school and outside of school. <p><u>Internet Safety Week February</u></p>	<ul style="list-style-type: none"> • Use a website and a camera. • Record sound and play back. • Understand that programs require precise instructions. • Organise, retrieve and manipulate digital content.
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<p>Year 3 & 4 Suggested Baseline Unit Planners for projects</p>	<p>Autumn A Why is Richmond special? RS: We are Programmers 3.1 RS: We are Software Developers 4.1 TW: Internet Safety Unit Y3</p>	<p>Spring A What is beneath us and why does it matter? RS: We are Vloggers 3.4 RS: We are HTML Editors 4.4 TW: Word Processing Skills https://www.twinkl.co.uk/resource/tp2-i-085-planit-computing-year-3-word-processing-skills-unit-pack</p>	<p>Summer A How do we get our message across? RS: We are Presenters 3.3 RS: We are Musicians 4.3 RS: We are meteorologists 4.6</p>	<p>Autumn B How do I care for my body and mind? Tw: Digital Well-Being KS2 PSHE Unit TW: Y4 Word Processing https://www.twinkl.co.uk/resource/tp2-i-146-computing-word-processing-year-4-unit-pack</p>	<p>Spring B Why is history worth knowing? RS: We are Bug Fixers 3.2 RS: We are co-authors Producing a wiki 4.5</p>	<p>Summer B How can I have my say? RS: t 3.6 We are opinion pollsters Collecting and analysing data RS: We are toy designers Prototyping an interactive toy 4.2</p>
<p>NB. Every half term, children should revisit Autumn Term strategies to keep safe online.</p>	<p>Safe Use <i>Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</i></p> <ul style="list-style-type: none"> Use technology respectfully and responsibly. Know different ways they can get help if concerned. Recognise acceptable and unacceptable behaviour using technology. <p>Search Engines <i>Pupils should be taught to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</i></p> <ul style="list-style-type: none"> Use a range of software for similar purposes. 	<p>Networks <i>Pupils should be taught to understand the 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.</i></p> <ul style="list-style-type: none"> Navigate the web to complete simple searches. Know how to search for specific information and know which information is useful and which is not. <p>Internet Safety Week February</p>	<p>Using Programs <i>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, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</i></p> <ul style="list-style-type: none"> Understand what computer networks do and how they provide multiple services. Produce and upload a podcast. 	<p>Safe Use <i>Pupils should be taught to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</i></p> <ul style="list-style-type: none"> Use technology respectfully and responsibly. Know different ways they can get help if concerned. Recognise acceptable and unacceptable behaviour using technology. 	<p>Reasoning <i>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.</i></p> <ul style="list-style-type: none"> 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). <p>Internet Safety Week February</p>	<p>Create Programs <i>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.</i></p> <ul style="list-style-type: none"> Write programs that accomplish specific goals. Give an 'on-screen' robot specific instructions that takes them from A to B



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	<ul style="list-style-type: none"> Collect and present information. Select and use software to accomplish given goals. <p>Develop Programs <i>Pupils should be taught to use sequence, selection, and repetition in programs ; work with variables and various forms of input and output.</i></p> <ul style="list-style-type: none"> Design a sequence of instructions, including directional instructions. Experiment with variables to control models. 					
<p>Year 5/6 Suggested Baseline Unit Planners for projects</p>	<p>Autumn A Why is Richmond special? R.S. Unit 6.1 We are app planners Planning the creation of a mobile app</p> <p>R.S. Unit 5.4 We are web developers Creating a website about cyber safety</p>	<p>Spring A Where does it come from and where does it go? R.S. Unit 6.2 We are project managers Developing project management skills</p> <p>R.S. Unit 5.2 We are cryptographers Cracking codes</p>	<p>Summer A How do words make us feel? RS: Unit 6.3 We are market researchers Researching the app market</p> <p>Twinkl Resource: Unit Controlling Devices: Flowol</p> <p>Twinkl Resource :Radio Station</p>	<p>Autumn B How do I care for my body and mind? Twinkl Resource E Safety</p> <p>R.S: Unit 6.6 We are marketers Creating video and web copy for a mobile phone app</p>	<p>Spring B What legacy will I leave behind?</p> <p>R.S. Unit 6.5 We are app developers Developing a simple mobile phone app</p> <p>R.S. Unit 5.5 We are bloggers Sharing experiences and opinions</p>	<p>Summer B What makes a colourful world? Twinkl Resource – Scratch Write a program that controls more than one attribute (Use technology to control an external device)</p> <p>R.S. Unit 5.1 We are game developers Developing an interactive game</p>



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						<p>R.S. Unit 5.3 We are artists Fusing geometry and art</p> <p>R.S. Unit 5.6 We are architects Creating a virtual space</p>
<p>NB. Every half term, children should revisit Autumn Term strategies to keep safe on-line.</p>	<p>Safe Use</p> <ul style="list-style-type: none"> Understand that they have to make choices when using 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. 	<p>Reasoning</p> <ul style="list-style-type: none"> Analyse and evaluate information reaching a conclusion that helps with future developments. Design algorithms that use repetition and 2-way selection. <p><u>Internet Safety Week February</u></p>	<p>Using Technology</p> <ul style="list-style-type: none"> Combine sequences of instructions and procedures to turn devices on and off. Present the data collected in a way that makes it easy for others to understand. 	<p>Safe Use</p> <ul style="list-style-type: none"> Understand that they have to make choices when using 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. 	<p>Reasoning</p> <ul style="list-style-type: none"> Analyse and evaluate information reaching a conclusion that helps us with future developments. Design algorithms that use repetition and a 2-way selection. <p><u>Internet Safety Week February</u></p>	<p>Create Programs</p> <ul style="list-style-type: none"> Use technology to control an external device. Write a program that combines more than one attribute.



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	<p>Create Programs</p> <ul style="list-style-type: none">• Develop a program that has specific variables identified.• Develop a sequenced program that has repetition and variables identified					
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