



<div>  <div> St John's RC Primary School, Burnley Whole School Curriculum Map Computing </div>  </div>								
		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	Topic EXPLORING PROGRAMMABLE TOYS To begin to understand that a programmable toy follows your instruction. EXPLORING DRAW /PAINTING PROGRAMS To develop mouse control when making marks on a painting program.	EXPLORING PROGRAMMABLE TOYS To begin to understand that a programmable toy follows your instruction. EXPLORING DRAW /PAINTING PROGRAMS To develop mouse control when making marks on a painting program.	Technology around us Recognising technology in school and using it responsibly. Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally	Information technology around us Identifying IT and how its responsible use improves our world in school and beyond. Digital photography Capturing and changing digital photographs for different purposes.	connecting computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. Stop-frame animation Capturing and editing digital still images to produce a stop-frame animation that tells a story.	The internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. Audio production Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Systems and searching Recognising IT systems in the world and how some can enable searching on the internet. Video production Planning, capturing, and editing video to produce a short film.	Communication and collaboration Exploring how data is transferred by working collaboratively online. Creating media Webpage creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.

	NC reference/ ELG	<p>Personal Social and Emotional Development Show resilience and perseverance in the face of a challenge.</p> <ul style="list-style-type: none"> • Know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'. <p>Physical Development</p> <ul style="list-style-type: none"> • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. <p>Expressive Arts and Design</p> <ul style="list-style-type: none"> • Explore, use and refine a variety of artistic effects to express their ideas and feelings. ELG <p>Personal, Social and Emotional Development</p> <p>Managing Self • Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly.</p> <p>Expressive Arts and Design</p> <p>Creating with Materials • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>Use technology purposefully to create, organise, store, manipulate, and retrieve digital content</p> <p>Recognise common uses of information technology beyond school</p> <p>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</p>	<p>Use technology purposefully to create, organise, store, manipulate, and retrieve digital content</p> <p>Recognise common uses of information technology beyond school</p> <p>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.</p>	<p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>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</p> <p>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</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>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</p> <p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>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</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p>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</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p> <p>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</p> <p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>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</p> <p>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</p>
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Spring	Topic	Online Safety Smartie PenguinLearn how to keep ourselves and others safe online TAKING I PAD PHOTOS AND PLAYING GAMES Learn to switch on and find the camera icon. With support take a photograph of plants and life cycle of creatures	Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes. Grouping data Exploring object labels, then using them to sort and group objects by properties.	Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions. Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer.	Sequencing sounds Creating sequences in a block-based programming language to make music. Branching databases Building and using branching databases to group objects using yes/no questions	Repetition in shapes Using a text-based programming language to explore count-controlled loops when drawing shapes. Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	Selection in physical computing Exploring conditions and selection using a programmable microcontroller. flat-file databases Using a database to order data and create charts to answer questions.	Variables in games Exploring variables when designing and coding a game. Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data.
	NC reference/ ELG	As Above	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. Recognise common uses of information technology beyond school	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 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	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 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 Use	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 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 Use sequence, selection,	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 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 Use search technologies effectively, appreciate how results are selected and ranked, and be discerning	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 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 Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable

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Summer	Topic	<p>WORD PROCESSING TO TYPE AND PRINT SIMPLE WORDS/PHRASES (C)To type simple words and phrases.</p> <p>To start to learn how to log on. To type own first name.</p> <p>USING ICT AT HOME AND SCHOOL</p> <p>To explore and talk about the similarities and differences between technology at home and school, understanding their purposes.</p>	<p>Digital writing Using a computer to create and format text, before comparing to writing non-digitally</p> <p>Programming animations Designing and programming the movement of a character on screen to tell stories.</p>	<p>Digital music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p> <p>Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p>	<p>Desktop publishing Creating documents by modifying text, images, and page layouts for a specified purpose</p> <p>Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>	<p>Photo editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p> <p>Repetition in games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</p>	<p>Introduction to vector graphics Creating images in a drawing program by using layers and groups of objects.</p> <p>Selection in quizzes Exploring selection in programming to design and code an interactive quiz.</p>	<p>3D modelling Planning, developing, and evaluating 3D computer models of physical objects.</p> <p>Sensing movement Designing and coding a project that captures inputs from a physical device.</p>
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