



Newbold Church of England Primary School

At Newbold we aim to support each other to live, learn and excel together as a Christian community.

"Therefore encourage one another and build each other up," 1 Thessalonians 5:11

Computing Curriculum Map		Autumn	Spring	Summer
Year A	EYFS	<p>During the year the EYFS children will have an opportunity to explore, learn and develop their computing skills. They will use</p> <ul style="list-style-type: none"> • Word to write. • PAINT on the computer to draw • Beebots and remote control toys • Colouring Apps on the ipad • Games related to topics on the ipad • CD player • The ipad to take photos • The internet to search for information with an adult <p><i>Develop their small motor skills so that they can use a range of tools competently, safely and confidently. (Reception, Physical Development, Development Matters)</i> <i>Explore, use and refine a variety of artistic effects to express their ideas and feelings. (Reception, Expressive Arts and Design, Development Matters)</i> <i>Explore how things work (Understanding of the World, Development matters 3&4 year olds)</i> They will also talk about safety online during PSHE lessons in the summer term. <i>Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'. (Reception Development Matters)</i></p>		
	1	<p>Year 1: Painting, To use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use logical reasoning to predict the behaviour of simple programs.</p> <p>Year 1: Programming Toys Understand that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use technology purposefully to create digital content. Understand how [algorithms] are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.</p>	<p>Year 1: Word Processing Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Internet Safety Week-Use Cambridgeshire PSHE unit to support & resources especially for the week. (See PSHE Digital Lifestyles)</p> <p>Year 1: Programming with Scratch Jr To understand that programs execute by following precise and unambiguous instructions. To use logical reasoning to predict the behaviour of simple programs. To create and debug simple programs.</p>	<p>Year 1: Computer skills Use technology purposefully to manipulate and retrieve digital content. Use technology safely and respectfully.</p> <p>Year 1: Using & Applying Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Internet Safety -Fill any gaps using Cambridgeshire PSHE unit to support (See PSHE Digital Lifestyles)</p>
	2	<p>Year 2: Computer Art To use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Year 2: Preparing for Turtle Logo Understand what algorithms are, and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Year 2: Using the internet Use technology purposefully to create, organise, and store digital content. To 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>Internet Safety Week-Use Cambridgeshire PSHE unit to support & resources especially for the week.</p> <p>Year 2: Programming with Turtle, Logo & Scratch Understand what algorithms are; and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Year 2: Presentation skills Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use technology safely and respectfully.</p> <p>Year 2: Using & Applying Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Understand what algorithms are; and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs</p> <p>Internet Safety -Fill any gaps using Cambridgeshire PSHE unit to support</p>



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	3/4	<p>Year 3: Online Safety To know what cyberbullying is and how to address it Understand how websites use advertisement to promote products To create strong passwords and understand privacy settings Safely send and receive emails Explore different ways to communicate online Use knowledge about online safety to plan a party online</p> <p>Year 3: Online Searchers and Surfers To understand what the internet is and how it is used around the world To understand how the internet works To understand how to use search engines to make safe online searches To know how to use and compare different website links to find reliable information online To copy and paste images from a web page using different methods</p>	<p>Year 3: Programing Turtle Logo and Scratch To create and debug an algorithm using the move, rotate and repeat commands To create and debug an algorithm using penup and pendown To create and debug an algorithm that draw regular polygons To create and debug an algorithm that draw shapes and patterns</p> <p>Year 3: Word Processing To use basic computer skills To change the case of text To align text To use bullet points and numbering To use the <ctrl> key To insert and format text boxes</p>	<p>Year 3: Drawing and Desktop Publishing To draw with different shapes and lines To order and group objects To manipulate shaoes and lines To recognize effective layout To combine text and images To layout objects effectively</p> <p>Year 3: Presentation Skills To plan a branching story To add theme, transitions and animations to a presentation To use action settings To insert audio and video To evaluate slide layout and make improvements</p>
	5/6	<p>Year 5: Online Safety To identify spam emails and know what to do with them To write citations for the websites used for research To create strong passwords To apply online safety rules to real-life scenarios</p> <p>Year 5: Strategic Searching Online To find out information on the internet using search engines To use a search engine effectively by refining the search term To identify what makes a website reliable and trustworthy To understand how search engines work To understand and explain what page ranking is To use Search Engine Optimisation to improve a web page</p>	<p>Year 5: Scratch – Developing Games To design and program a character game To design an original character or backdrop for a game To add features or effects to enhance a game To create an original animated game with a specific goal To program costume changes for a sprite To add point-scoring and levels to game code</p> <p>Year 5: 3D Modelling: Sketch Up To draw 3D shapes To add detail to 3D drawings To add and manipulate 3D models To create a complex 3D model To create a 3D model of my own design</p>	<p>Year 5: Controlling Devices: Flowol To draw and interpret a flowchart with the correct symbols To create and edit a flowchart to control a simulated device To control multiple outputs at the same time To use a decision symbol based on the status of an input To create a flowchart program containing a subroutine To design, write and debug my own flowchart program for a given task</p> <p>Year 5: Radio Station To use software to create my own sounds by recording, editing and playing To combine audio effects to create an original radio jingle To research and plan digital content for a radio podcast To use software to create and present digital content for a radio podcast To design and record a persuasive radio advert for a product or service To present and evaluate audio content</p>



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Year B	EYFS	Repeat Year A		
	1	<p>Year 1: Painting, To use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use logical reasoning to predict the behaviour of simple programs.</p> <p>Year 1: Programming Toys Understand that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use technology purposefully to create digital content. Understand how [algorithms] are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.</p>	<p>Year 1: Word Processing Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Internet Safety Week-Use Cambridgeshire PSHE unit to support & resources especially for the week. (See PSHE Digital Lifestyles)</p> <p>Year 1: Programming with Scratch Jr To understand that programs execute by following precise and unambiguous instructions. To use logical reasoning to predict the behaviour of simple programs. To create and debug simple programs.</p>	<p>Year 1: Computer skills Use technology purposefully to manipulate and retrieve digital content. Use technology safely and respectfully.</p> <p>Year 1: Using & Applying Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Internet Safety -Fill any gaps using Cambridgeshire PSHE unit to support (See PSHE Digital Lifestyles).</p>
	2	<p>Year 2: Computer Art To use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Year 2: Preparing for Turtle Logo Understand what algorithms are, and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Year 2: Using the internet Use technology purposefully to create, organise, and store digital content. To 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>Internet Safety Week-Use Cambridgeshire PSHE unit to support & resources especially for the week.</p> <p>Year 2: Programming with Turtle, Logo & Scratch Understand what algorithms are; and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Year 2: Presentation skills Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use technology safely and respectfully.</p> <p>Year 2: Using & Applying Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Understand what algorithms are; and that programs execute by following precise and ambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.</p> <p>Internet Safety -Fill any gaps using Cambridgeshire PSHE unit to support.</p>
	3/4	<p>Year 4: Online Safety To identify how a message can hurt someone's feelings. To say how I should respond to a hurtful message online To use a search engine accurately. To understand the term 'plagiarism' and how to avoid it. To create a safe online profile. To explain how to be a responsible digital citizen. To create an online safety superhero character.</p>	<p>Year 4: Programming Turtle Logo To create and debug an algorithm to create a procedure. To create and debug an algorithm that uses setpos to draw shapes. To create and debug an algorithm with different colours. To create and debug an algorithm to fill areas with colour. To create and debug an algorithm to produce text. To create and debug an algorithm to draw arcs.</p>	<p>Year 4: Scratch: Questions and Quizzes To compare quizzes and decompose a problem into smaller parts. To write and debug a program which uses sequence and repetition To use sequence and selection. To work with variables. To write a program. To design, write and debug my own program by selecting appropriate visual block commands to create a sequence.</p>



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		Year 4: Communication and Collaboration To explore the different ways we can communicate online. To understand the positives and negatives of communicating online. To understand what email is and how it is used. To understand how to send and receive emails. To use the features of email to communicate with others. To know how to work collaboratively using online software. To know how to use collaborative tools online to contribute to others' work.	Year 4: Word Processing To format images for a purpose. To use formatting tools to create an effective layout. To use the spellcheck tool. To insert and format a table in a word processing document. To change a page layout for a purpose. To create hyperlinks within a word document.	Year 4: Animation To describe early forms of animation before computers and how computers have made a difference. To create a short computer animation using one or more moving stick figures. To create a recorded animation involving a number of moving characters on a background. To structure specific timing of animations using a time slider. To use a camera to create a short stop motion animation film. To analyse and evaluate software.
	5/6	Year 6: Online Safety To find similarities and differences between in person and cyberbullying. To identify good strategies to deal with cyberbullying. To identify secure websites by identifying privacy seals of approval. To understand the benefits and pitfalls of online relationships. To identify information that I should never share. To identify how the media play a powerful role in shaping ideas about girls and boys. To apply my online safety knowledge to my online activities. To use my knowledge of online safety to create a multiple-choice quiz. Year 6: Know Your Network To know what computer networking is. To understand the advantages and disadvantages of a computer network. To understand what LAN (local area network), MAN (metropolitan area network) and WAN (wide area network) are. To understand what topology is and how topology networks work. To understand how computers connect to the Internet using protocols. To understand how computers send and receive information using packets and routing. To know the differences between the Internet and World Wide Web. To understand what cloud computing is. To understand how broadband and online streaming are part of a network and are used as communication methods on the Internet. To understand what malware is and how this can affect a computer network. To identify ways of minimising risks of cybersecurity threats.	Year 6: Kodu Programming To investigate and evaluate the features of programming software. To program Kodu using 'When' and 'Do' instructions. To use tools and add features to create an original landscape in Kodu. To analyse and deconstruct code to work out its purpose. To program a character to be controlled around a custom track to reach a goal. To program a character to follow an automatic path. Year 6: Spreadsheets To enter data and formulae into a spreadsheet. To order and present data based on calculations. To add, edit and calculate data. To use a spreadsheet to solve problems. To plan and calculate a spending budget. To design a spreadsheet for a specific purpose.	Year 6: Scratch: Animated Stories To create appropriate animations for a story scene. To structure and control the timing of events. To control when objects need to be visible. To sequence events to create a story narrative. To add voice sounds to enhance an animated story. To add interactive user features to a scene or story. Year 6: Film Making To use appropriate software and other tools effectively to write a film script. To locate and check appropriate digital content, and provide accurate crediting of sources. To use digital recording devices to film and import into video editing software. • I can plan, conduct and import video interviews as part of a short film • I can use video editing software to create a short film. To use video editing software to turn a film project into a finished movie and present it.