



Computing Subject Overview						
	Autumn		Spring		Summer	
Reception					<p>Look at what I can do!</p> <p>Pupils will learn that information can be used and created using technology.</p>	
<p>By the end of the Reception Year the children will be able to:</p> <p>Personal, Social and Emotional Development Managing Self ELG: Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. ELG: Explain the reasons for rules, know right from wrong and try to behave accordingly. Expressive Arts and Design Creating with Materials ELG: Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>						
Year 1	<p>Basic Computing Skills</p> <p>Pupils will learn how to log in and shut down a computer accurately and begin to understand the importance of a password.</p>	<p>Using text-based programs to process and format text and Images</p> <p>Pupils will learn how to use a word processing program to write and format text. They will add in digital images and consider the audience for their work.</p>	<p>Unplugged algorithms</p> <p>Pupils will learn what an unplugged algorithm is and create and apply them to an on-screen program.</p>	<p>Programming, coding & Robotics</p> <p>Pupils explore how to control both physical and virtual robots with a sequence of commands. Enrichment: Bluebots Indis</p>	<p>Data collection and representation using Pictograms</p> <p>Pupils will explore how to transfer physical data from a tally chart into a digital pictogram. They will compare the difference with creating a physical pictogram.</p>	<p>Presenting information</p> <p>Pupils will consider a variety of ways to present cross curricular information digitally, and compare the advantages and disadvantages with paper based content.</p>



Year 2	<p>What is a computer?</p> <p>Pupils will be able to describe different computers and their peripherals. They will also learn about the different roles computers play in society.</p>	<p>Unplugged algorithms</p> <p>Pupils will continue to explore what algorithms are and what strategies they can use to find bugs when their algorithm is not working.</p>	<p>Scratch junior</p> <p>Pupils will use the Scratch Junior app to write their own block code in a number of different cross curricula projects.</p>	<p>Modifying text and images</p> <p>Pupils will build on previously learnt keyboard skills and learn how to format text in a number of different ways. Pupils will also learn how to edit images.</p>	<p>Storing and presenting data</p> <p>Pupils will look at what data is and compare different methods of data storage. Pupils will also learn about graphs and charts.</p>	<p>Presenting Information</p> <p>Pupils will create a presentation of their class topic using the app Shadow Puppet EDU. Pupils will learn how to edit fonts and photos to make an engaging presentation. Enrichment: Apple Pencils</p>
Year 3	<p>Composing emails</p> <p>Pupils will explore the different advanced features of Microsoft Word. They will also use these skills to compose an email.</p>	<p>Introduction to Scratch</p> <p>Pupils will learn to program sprites using a range of blocks to add animation, sound and other effects.</p>	<p>Prediction and Debugging</p> <p>Pupils will predict and debug algorithms. Enrichment: Makey Makey</p>	<p>Altering digital media</p> <p>Pupils will investigate ways to alter digital images in different ways. Enrichment: Apple Pencils</p>	<p>Inside a computer</p> <p>Pupils will look at the history of computing and the components inside a computer.</p>	<p>Publishing online content</p> <p>Pupils will learn about graphic design, publishing and promoting their own content.</p>
Year 4	<p>Branching databases</p> <p>Pupils will learn about the concept of branching databases and</p>	<p>Repetition and forever loops</p> <p>Pupils learn to use repetition and loops when coding.</p>	<p>Designing a game</p> <p>Pupils use their knowledge of Scratch to create</p>	<p>Making a Special Effects movie</p> <p>Pupils create their own videos and apply special effects to them.</p>	<p>Smarter Searching and Online Safety</p> <p>Pupils to gain awareness of the best ways to</p>	<p>Pixel Art</p> <p>Pupils create a piece of pixel artwork using a grid format</p>



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	create their own using presentation software.	Enrichment: Makey Makey and Spheros	a Formula One style game. Enrichment: Microbits	Enrichment: Green Screen	use a search engine and to continue to develop awareness of online dangers.	
Year 5	Create and search a database Pupils will use Excel to create and search a database.	Using variables Pupils identify different types of variables, what conditionals are and understand how variables are used in computer programming.	Coding Using Micro:Bits Pupils to program Micro:Bit to make a variety of practical and usable devices. Enrichment: Microbits.	Stop motion animation Pupils will learn about all the aspects of stop motion animation. They will create their own storyboard their own story before creating their own stop frame animation.	World Wide Web and Internet Pupils will learn about the difference between the World Wide Web and the Internet. They will also understand what is meant by IP address.	3D modelling Pupils will learn how to draw 3D shapes and structures using CAD software such as Trimble Sketchup. Enrichment: 3D Print Designs
Year 6	Creating formula in Excel Pupils will learn how to organise data and make calculations using the application Microsoft Excel.	Edublocks- Introduction to Python Pupils will learn how block-based programming compares to written code. Pupils will be introduced to Python as a text-based method of programming.	Programming a Game Using the application Scratch, pupils will create an interactive, playable game using conditionals, variables, and operators. Enrichment: Co Spaces Microbits	Creating a Podcasting Pupils will produce a podcast based on a piece of writing from another curriculum area or aspect of school life. Enrichment: Green Screen	HTML Pupils will learn how to design a multi-page informational website, considering the layout, user experience and key features including home page, links and images.	Social Media & Being Safe Online Pupils will learn about the purpose of social media and different aspects of social media and how to use it safely. Enrichment: Canva