

Computing: Long Term Overview

	Autumn Term	Spring Term	Summer Term
Reception		<p>Spring 1: <u>Using Beebots</u> To know how to operate simple equipment</p> <p><u>Technology toys</u> -To be able to complete a simple program on electric devices</p> <p><u>Creating content</u> -To be able to create content (video recording)</p> <p>Spring 2: <u>Cause and effect</u> To show skill in making toys work</p>	<p>Summer 1: <u>Retrieving from digital devices</u> To understand that information can be retrieved from digital devices and the internet.</p> <p><u>We are photographers!</u> To know how to operate simple equipment (iPad)</p> <p>Summer 2: <u>Creating content</u> To be able to create content by drawing pictures on screen.</p> <p><u>Searching the internet</u> To understand that information can be retrieved from digital devices and the internet</p>
Y1	<p>Autumn 1: <u>Technology around Us</u> <i>Computing Systems/Algorithms</i> -To understand what technology is and how it is used.</p> <p>Autumn 2 <u>Digital Painting</u> <i>Creating Media</i> -To understand what free hand-tools are and how they are used</p>	<p>Spring 1::1 <u>Moving a Robot</u> <i>Algorithms/Programming</i> -To understand how to give and follow instructions. -To plan a simple program with instructions</p> <p>Spring 2: <u>Grouping Data</u> <i>Data and Information/Algorithms</i> -To develop their understanding that objects can be given labels -To present data graphically in pictograms</p>	<p>Summer 1: <u>Digital Writing</u> <i>Effective use of tools/ Creating Media</i> -To use a computer to write To make careful choices when changing a text</p> <p>Summer 2: <u>Programming animations</u> <i>Programming/Design and development</i> -To understand that a series of commands can be joined together</p>

Y2	<p>Autumn 1: <u>Information technology around us</u> <i>Networks/Computing Systems</i> To develop an understanding of what information technology is and its features</p> <p>Autumn 2: <u>Digital photography</u> <i>Effective use of tools/Creating Media</i> To recognise that different devices can be used to capture photographs</p>	<p>Spring 1: <u>Robot Algorithms</u> <i>Algorithms/Programming</i> To understand instructions in sequences and the use of logical reasoning to predict outcomes.</p> <p>Spring 2: <u>Pictograms</u> <i>Data Information/ Effective use of tools</i> To understand what the term data means and how data can be collected</p>	<p>Summer 1: <u>Making music</u> <i>Creating media/ Data and development</i> To create music using a computer</p> <p>Summer 2: <u>Programming quizzes</u> <i>Programming/ Data and development</i> To understand that sequences of commands have an outcome, and make predictions based on learning</p>
Y3	<p>Autumn 1: <u>Connecting computers</u> <i>Networks/ Computing Systems</i> To understand digital devices, with an initial focus on inputs, processes, and outputs.</p> <p>Autumn 2: <u>Stop-frame animation</u> <i>Effective use of tools/Creating Media</i> To use a range of techniques to create a stop-frame animation using tablets</p>	<p>Spring 1: <u>Sequencing sounds</u> <i>Programming/ Data and development</i> To develop an understanding of sequences in a new programming language</p> <p>Spring 2: <u>Branching databases</u> <i>Data and information/Effective use of tools</i> To develop an understanding of what a branching database is and how to create one</p>	<p>Summer 1: <u>Desktop publishing</u> <i>Effective use of tools/Creating Media</i> To understand the terms ‘text’ and ‘images’ and understand that they can be used to communicate messages.</p> <p>Summer 2: <u>Events and actions in programs</u> <i>Programming/Data and development</i> To learn to move sprite in different directions. To explore movement within the context of a maze</p>
Y4	<p>Autumn 1: <u>The internet</u> <i>Safety and security</i> To apply their knowledge and understanding of networks To appreciate the internet as a network of networks which need to be kept secure</p> <p>Autumn 2: <u>Audio production</u> <i>Effective use of tools/Creating media</i> To identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally</p>	<p>Spring 1: <u>Repetition in shapes</u> <i>Algorithms/Programming</i> To create programs by planning, modifying, and testing commands to create shapes and patterns.</p> <p>Spring 2: <u>Photo editing</u> <i>Effective use of tools/Creating media</i> To understand how digital images can be changed and edited.</p>	<p>Summer 1 <u>Data logging</u> <i>Computing systems/ Data and information</i> To understand how and why data is collected over time.</p> <p>Summer 2: <u>Repetition in games</u> <i>Programming/Data and development</i> Explore the concept of repetition in programming</p>

Y5	<p>Autumn 1: <u>Sharing information</u> <i>Networks/Effective use of tools</i> To understand computer systems and how information is transferred between systems and devices.</p> <p>Autumn 2: <u>Video production</u> <i>Creating media/Data and development</i> To develop the skills of capturing, editing, and manipulating video</p>	<p>Spring 1: <u>Vector drawing</u> <i>Creating media</i> To create vector drawings To use different drawing tools to create images.</p> <p>Spring 2: <u>Flat-file databases</u> <i>Data and Information/Effective use of tools</i> To use tools within a database to order and answer questions about data. To create graphs and charts from collected data to help solve problems.</p>	<p>Summer 1: <u>Selection in physical computing</u> <i>Programming/ Computing systems</i> To use physical computing to explore the concept of selection in programming.</p> <p>Summer 2: <u>Selection in quizzes</u> <i>Algorithms/Programming</i> To explain how selection is used in computer programs</p>
Y6	<p>Autumn 1: <u>Webpage creation</u> <i>Creating Media/Data and development</i> To create websites for a chosen purpose.</p> <p>Autumn 2: <u>Communication & Collaboration</u> <i>Networks/Effective use of tools</i> Explore how data is transferred over the internet</p>	<p>Spring 1: <u>Variables in games</u> <i>Programming/Data and development</i> To explore the concept of variables in programming</p> <p>Spring 2: <u>Introduction to spreadsheets</u> <i>Effective use of tools/ Data and information</i> To format data to support calculations</p>	<p>Summer 1: <u>3D modelling</u> <i>Effective use of tools/creating media</i> To develop their knowledge and understanding of using a computer to produce 3D models</p> <p>Summer 2: <u>Sensing</u> <i>Programming/Computing system</i> To create a program to run on a controllable device</p>