

## Computing Programme of Study Progression Map



	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Computing systems and networks</b>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>• Uses ICT hardware to interact with age appropriate computer software</li> <li>• Develops digital literacy skills by being able to access, understand and interact with a range of technologies</li> <li>• Can use the internet with adult supervision to find and retrieve information of interest to them</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>-To use a keyboard to type my name.</li> <li>-To use a mouse to click and drag</li> <li>-To delete letters using a keyboard.</li> <li>-To save my work</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>-To identify common types of technology.</li> <li>-To explain how to stay safe when using IT.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>-To recognise input and output devices.</li> <li>- To explore how digital devices can be connected.</li> <li>-To recognise the physical components of a network.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>Understand the internet is a network of networks. Describe how content can be accessed and added on the WWW.</li> <li>Understand that some content on WWW may not be honest, legal or reliable.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To explain that systems are built using a number of parts.</li> <li>- To make use of a web search to find specific information and compare results from different engines.</li> <li>- To explain some of the limitations of search engines.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To identify that there are a variety of ways to communicate over the internet.</li> <li>- To decide when I should and should not share info. Online</li> <li>- To identify ways of working together online (public or private).</li> <li>- I can identify and explain the main parts of a data packet.</li> </ul>

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Programming A	<p><b>Pupils should be taught to:</b></p> <p>Completes a simple program on electronic devices</p>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To explain what a given command will do.</li> <li>- To combine forwards and backwards commands to create a sequence.</li> <li>- To plan a simple program</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To describe a series of instructions as a sequence.</li> <li>- To plan an algorithm</li> <li>- To debug the program</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To identify commands have an outcome and a sequence of commands can have an order.</li> <li>- To create a project from a task description.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To program a computer by typing commands.</li> <li>- To create a program that uses count controlled loops.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To program a microcontroller to make an LED switch on.</li> <li>- To use count control loops to control outputs.</li> <li>- To test and debug my program.</li> <li>- To write an algorithm that describes what my model will do.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To understand that a variable has a name and value and can hold names or numbers.</li> <li>- To recognise the value of a variable can be changed and that its value can be used by a program.</li> <li>- To test the code that I have written</li> <li>- To use variables to extend.</li> </ul>

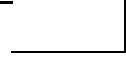
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<b>Programming B</b>	<p><b>Pupils should be taught to:</b></p> <p>Completes a simple program on electronic devices</p>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To show that a series of commands can be joined together.</li> <li>- To identify the effect of changing a value.</li> <li>- To explain that each sprite has its own instructions.</li> <li>- To use my algorithm to create a program.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>-To explain that a sequence of commands has a start and an outcome.</li> <li>-To create a program using my own design</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>-To create a program to move a sprite in four directions.</li> <li>-To identify and fix bugs in a problem.</li> <li>-Design and create a maze based challenge.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>-To develop a design which contains two or more loops.</li> <li>-To create and design a project that contains repetition.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To design, create and evaluate a program which uses selection.</li> <li>- To explain how selection is used in computer programs.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To find and fix bugs using a range of approaches.</li> <li>- To use a variable in an “if, then, else” statement to select the flow of a program.</li> <li>- To design an algorithm for my program.</li> </ul>
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Data information	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- Completes a simple program on electronic devices</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>-To label, count and group objects.</li> <li>-To compare groups of objects.</li> <li>-To answer questions about groups of objects</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To count and compare objects using a tally chart.</li> <li>- To enter data onto a computer and create a pictogram.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To create a branching database which includes yes/no answers.</li> <li>- To understand how branching databases can be used in the Real World.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- Use a digital device to collect data.</li> <li>- Recognise how a computer helps analyse data.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To order, sort and group data cards.</li> <li>- To group information using a database.</li> <li>- To explain what a field and a record is.</li> <li>- To select an appropriate chart to show my findings and present these to a group.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To collect data and enter it onto a spreadsheet.</li> <li>- To apply an appropriate format to a cell.</li> <li>- To construct a formula and identify that changing inputs changes outputs.</li> <li>- To create a formula.</li> <li>- I can produce a chart and use it to show the answer to questions.</li> </ul>
Creating media	<p>-- create content such as a video recording, stories, and/or draw a picture on screen</p>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To use a computer to write.</li> <li>- I can use bold, italic and underline features.</li> <li>- I can type using capital letters and the space key between words.</li> <li>-To use the backspace key and “undo” to make changes.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To experiment with sound using a computer.</li> <li>- To create a musical pattern using a computer.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- Recognise text and layout can be edited for different purposes. (font size, colour ,style)</li> <li>-To copy and paste images</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To edit an image using photo editing software (colour, rotation, crop)</li> <li>- To combine text and image to create.</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To collect data and enter it onto a spreadsheet.</li> <li>- To apply an appropriate format to a cell.</li> <li>- To construct a formula and identify that</li> </ul>	<p><b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>- To add, lift/lower and re-colour 3D objects in a project.</li> <li>- To duplicate, group, rotate and re-size 3D shapes in a project.</li> <li>- To show that placeholders can</li> </ul>

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						<p>changing inputs changes outputs. To create a formula.</p> <p>-</p> <p><i>I can produce a chart and use it to show the answer to questions.</i></p>	<p>produce holes in 3D objects.</p>
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