

	<b>COMPUTING SYSTEMS &amp; NETWORKS</b>	<b>CREATING MEDIA</b>	<b>DATA &amp; INFORMATION</b>	<b>PROGRAMMING</b>
<b>YEAR 1</b>	<b>Technology around us</b> To identify technology To identify a computer and its main parts To use a mouse in different ways To use a keyboard to type To use the keyboard to edit text To create rules for using technology responsibly	<b>Digital painting</b> To describe what different freehand tools do To use the shape tool and the line tools To make careful choices when painting a digital picture To explain why I chose the tools I used To use a computer on my own to paint a picture To compare painting a picture on a computer and on paper	<b>Grouping data</b> To label objects To identify that objects can be counted To describe objects in different ways To count objects with the same properties To compare groups of objects To answer questions about groups of objects	<b>Moving a robot</b> To explain what a given command will do To act out a given word To combine forwards and backwards commands to make a sequence To combine four direction commands to make sequences To plan a simple program To find more than one solution to a problem  <b>Introduction to animation</b> To choose a command for a given purpose To show that a series of commands can be joined together To identify the effect of changing a value To explain that each sprite has its own instructions To design the parts of a project To use my algorithm to create a program
<b>YEAR 2</b>		<b>Digital photography</b> To know what devices can be used to take photographs To use a digital device to take a photograph To describe what makes a good photograph To decide how photographs can be improved To use tools to change an image To recognise that images can be changed	<b>Pictograms</b> To recognise that we can count and compare objects using tally charts To recognise that objects can be represented as pictures To create a pictogram To select objects by attribute and make comparisons To recognise that people can be described by attributes To explain that we can present information using a computer	<b>Robot algorithms</b> To describe a series of instructions as a sequence To explain what happens when we change the order of instructions To use logical reasoning to predict the outcome of a program (series of commands) To explain that programming projects can have code and artwork To design an algorithm To create and debug a program that I have written  <b>Introduction to quizzes</b> To explain that a sequence of commands has a start To explain that a sequence of commands has an outcome To create a program using a given design To change a given design To create a program using my own design To decide how my project can be improved
<b>YEAR 3</b>	<b>Connecting computers</b> To explain how digital devices function To identify input and output devices To recognise how digital devices can change the way we work To explain how a computer network can be used to share information To explore how digital devices can be connected To recognise the physical components of a network	<b>Stop-frame animation</b> To explain that animation is a sequence of drawings or photographs To relate animated movement with a sequence of images To plan an animation To identify the need to work consistently and carefully To review and improve an animation To evaluate the impact of adding other media to an animation  <b>Desktop publishing</b> To recognise how text and images convey information To recognise that text and layout can be edited To choose appropriate page settings To add content to a desktop publishing publication To consider how different layouts can suit different purposes To consider the benefits of desktop publishing		<b>Events and actions</b> To explain how a sprite moves in an existing project To create a program to move a sprite in four directions To adapt a program to a new context To develop my program by adding features To identify and fix bugs in a program To design and create a maze-based challenge

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<b>YEAR 4</b>	<p><b>The internet</b></p> <ul style="list-style-type: none"> <li>To describe how networks physically connect to other networks</li> <li>To recognise how networked devices make up the internet</li> <li>To outline how websites can be shared via the World Wide Web</li> <li>To describe how content can be added and accessed on the World Wide Web</li> <li>To recognise how the content of the WWW is created by people</li> <li>To evaluate the consequences of unreliable content</li> </ul>	<p><b>Photo editing</b></p> <ul style="list-style-type: none"> <li>To explain that digital images can be changed</li> <li>To change the composition of an image</li> <li>To describe how images can be changed for different uses</li> <li>To make good choices when selecting different tools</li> <li>To recognise that not all images are real</li> <li>To evaluate how changes can improve an image</li> </ul>	<p><b>Data logging</b></p> <ul style="list-style-type: none"> <li>To explain that data gathered over time can be used to answer questions</li> <li>To use a digital device to collect data automatically</li> <li>To explain that a data logger collects 'data points' from sensors over time</li> <li>To use data collected over a long duration to find information</li> <li>To identify the data needed to answer questions</li> <li>To use collected data to answer questions</li> </ul>	<p><b>Repetition in shapes</b></p> <ul style="list-style-type: none"> <li>To identify that accuracy in programming is important</li> <li>To create a program in a text-based language</li> <li>To explain what 'repeat' means</li> <li>To modify a count-controlled loop to produce a given outcome</li> <li>To decompose a program into parts</li> <li>To create a program that uses count-controlled loops to produce a given outcome</li> </ul>
<b>YEAR 5</b>	<p><b>Sharing information</b></p> <ul style="list-style-type: none"> <li>To explain that computers can be connected together to form systems</li> <li>To recognise the role of computer systems in our lives</li> <li>To recognise how information is transferred over the internet</li> <li>To explain how sharing information online lets people in different places work together</li> <li>To contribute to a shared project online</li> <li>To evaluate different ways of working together online</li> </ul>	<p><b>Video editing</b></p> <ul style="list-style-type: none"> <li>To recognise video as moving pictures, which can include audio</li> <li>To identify digital devices that can record video</li> <li>To capture video using a digital device</li> <li>To recognise the features of an effective video</li> <li>To identify that video can be improved through reshooting and editing</li> <li>To consider the impact of the choices made when making and sharing a video</li> </ul>	<p><b>Flat-file databases</b></p> <ul style="list-style-type: none"> <li>To use a form to record information</li> <li>To compare paper and computer-based databases</li> <li>To outline how grouping and then sorting data allows us to answer questions</li> <li>To explain that tools can be used to select specific data</li> <li>To explain that computer programs can be used to compare data visually</li> <li>To apply my knowledge of a database to ask and answer real-world questions</li> </ul>	<p><b>Selection in games</b></p> <ul style="list-style-type: none"> <li>To explain how selection is used in computer programs</li> <li>To relate that a conditional statement connects a condition to an outcome</li> <li>To explain how selection directs the flow of a program</li> <li>To design a program which uses selection</li> <li>To create a program which uses selection</li> <li>To evaluate my program</li> </ul>
<b>YEAR 6</b>	<p><b>Communication</b></p> <ul style="list-style-type: none"> <li>To identify how to use a search engine</li> <li>To describe how search engines select results</li> <li>To describe how search engines select results</li> <li>To explain how search results are ranked</li> <li>To recognise why the order of results is important, and to whom</li> <li>To recognise how we communicate using technology</li> <li>To evaluate different methods of online communication</li> </ul>	<p><b>Web page creation</b></p> <ul style="list-style-type: none"> <li>To review an existing website and consider its structure</li> <li>To plan the features of a web page</li> <li>To consider the ownership and use of images (copyright)</li> <li>To recognise the need to preview pages</li> <li>To outline the need for a navigation path</li> <li>To recognise the implications of linking to content owned by other people</li> </ul> <p><b>3D modelling</b></p> <ul style="list-style-type: none"> <li>To use a computer to create and manipulate three-dimensional (3D) digital objects</li> <li>To compare working digitally with 2D and 3D graphics</li> <li>To construct a digital 3D model of a physical object</li> <li>To identify that physical objects can be broken down into a collection of 3D shapes</li> <li>To design a digital model by combining 3D objects</li> <li>To develop and improve a digital 3D model</li> </ul>		<p><b>Variables in games</b></p> <ul style="list-style-type: none"> <li>To define a 'variable' as something that is changeable</li> <li>To explain why a variable is used in a program</li> <li>To choose how to improve a game by using variables</li> <li>To design a project that builds on a given example</li> <li>To use my design to create a project</li> <li>To evaluate my project</li> </ul>