

<b>Year 4</b>			
<b>Skills</b>	<b>National Curriculum</b>	<b>Key knowledge</b>	<b>Key vocabulary</b>
<b>Computer systems and networks</b>	<b>Computer systems and networks</b>	<b>Computer systems and networks</b>	<b>Computer systems and networks</b>
<p>Understanding that computer networks provide multiple services, such as the World Wide Web, and opportunities for communication and collaboration. (CS)</p> <p>Use online software for documents, presentations, forms and spreadsheets. (IT)</p> <p>Using software to work collaboratively with others. (IT)</p> <p>Understanding that software can be used collaboratively online to work as a team. (IT)</p> <p>Recognising what appropriate behaviour is when collaborating with others online. (DL)</p>	<p>Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. (DL/IT)</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (CS/IT)</p>	<p>To understand that software can be used collaboratively online to work as a team.</p> <p>To know what type of comments and suggestions on a collaborative document can be helpful.</p> <p>To know that you can use images, text, transitions and animation in presentation slides.</p>	<p>Animations</p> <p>Average</p> <p>Bar chart</p> <p>Collaboration</p> <p>Conditional formatting</p> <p>Contribution</p> <p>Data</p> <p>Edited</p> <p>Email account</p> <p>Format</p> <p>Icon</p> <p>Insert</p> <p>Link</p> <p>Numerical data</p> <p>Pie chart</p> <p>Software</p> <p>Spreadsheets</p>
<b>Programming (1 and 2)</b>	<b>Programming (1 and 2)</b>	<b>Programming (1 and 2)</b>	<b>Programming (1 and 2)</b>
<p>Using decomposition to solve a problem by finding out what code was used. (CS) 1 and 2</p> <p>Using decomposition to understand the purpose of a script of code. (CS) 1 and 2</p> <p>Identifying patterns through unplugged activities. (CS) 2</p> <p>Using past experiences to help solve new problems. (CS) 2</p> <p>Using abstraction to identify the important parts when completing both plugged and unplugged activities. (CS) 2</p> <p>Creating algorithms for a specific purpose. (CS) 1 and 2</p> <p>Coding a simple game. (CS) 1</p> <p>Using abstraction and pattern recognition to modify code. (CS) 2</p> <p>Incorporating variables to make code more efficient. (CS) 1</p> <p>Remixing existing code. (CS) 1</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. (CS) 1 and 2</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. (CS) 1 and 2</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. (CS) 1 and 2</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (CS/IT) 1 and 2</p>	<p>To understand that a variable is a value that can change (depending on conditions) and know that you can create them in Scratch.</p> <p>To know what a conditional statement is in programming.</p> <p>To understand that variables can help you to create a quiz on Scratch.</p> <p>To know that combining computational thinking skills (sequence, abstraction, decomposition etc) can help you to solve a problem.</p> <p>To understand that pattern recognition means identifying patterns to help them work out how the code works.</p> <p>To understand that algorithms can be used for a number of purposes e.g. animation, games design etc.</p>	<p>Broadcast block</p> <p>Code blocks</p> <p>Conditional</p> <p>Coordinates</p> <p>Decomposition</p> <p>Features</p> <p>Negative numbers</p> <p>Orientation</p> <p>Parameters</p> <p>Position</p> <p>Program</p> <p>Project</p> <p>Script</p> <p>Sprite</p> <p>Variables</p> <p>Abstraction</p> <p>Algorithm</p> <p>Computational thinking</p> <p>Input</p> <p>Logical reasoning</p> <p>Output</p> <p>Pattern recognition</p> <p>Sequence</p>
<b>Creating media</b>	<b>Creating media</b>	<b>Creating media</b>	<b>Creating media</b>
<p>Building a web page and creating content for it. (IT)</p> <p>Designing and creating a webpage for a given purpose. (IT)</p> <p>Using software to work collaboratively with others. (IT)</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. (DL/IT)</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (CS/IT)</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. (DL)</p>	<p>To know some of the features of web design software.</p> <p>To know that a website is a collection of pages that are all connected.</p> <p>To know that websites usually have a homepage and subpages as well as clickable links to new pages, called hyperlinks.</p> <p>To know that websites should be informative and interactive.</p>	<p>Assessment</p> <p>Collaboration</p> <p>Content</p> <p>Create</p> <p>Design</p> <p>Embed</p> <p>Evaluate</p> <p>Hyperlinks</p> <p>Insert</p> <p>Online</p> <p>Web page</p> <p>Website</p> <p>World Wide Web</p>
<b>Data handling</b>	<b>Data handling</b>	<b>Data handling</b>	<b>Data handling</b>
<p>Using tablets or digital cameras to film a weather forecast. (CS)</p>	<p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. (CS)</p>	<p>To know that computers can use different forms of input to sense the world around them so that</p>	<p>Accurate</p> <p>Backdrop</p> <p>Collaboration</p>

<p>Understanding that weather stations use sensors to gather and record data which predicts the weather. (CS)</p> <p>Using keywords to effectively search for information on the internet. (IT)</p> <p>Searching the internet for data. (IT)</p> <p>Designing a device which gathers and records sensor data. (IT)</p> <p>Recording data in a spreadsheet independently. (IT)</p> <p>Sorting data in a spreadsheet to compare using the 'sort by...' option. (IT)</p> <p>Understanding that data is used to forecast weather. (IT)</p>	<p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (CS/IT)</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. (DL)</p>	<p>they can record and respond to data. This is called 'sensor data'.</p> <p>To know that a weather machine is an automated machine that responds to sensor data.</p> <p>To understand that weather forecasters use specific language, expression and pre-prepared scripts to help create weather forecast films.</p>	<p>Heat sensor</p> <p>Measurement</p> <p>Sensor data</p> <p>Tablet/digital camera</p>
<b>Skills showcase</b>	<b>Skills showcase</b>	<b>Skills showcase</b>	<b>Skills showcase</b>
<p>Remixing existing code. (CS)</p> <p>Building a web page and creating content for it. (IT)</p> <p>Understanding that information found by searching the internet is not all grounded in fact. (IT)</p> <p>Recognising that information on the Internet might not be true or correct and that some sources are more trustworthy than others. (DL)</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. (CS)</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. (CS)</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. (CS)</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (CS/IT)</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. (DL)</p>	<p>To understand and identify examples of HTML tags.</p> <p>To understand what changing the HTML and CSS does to alter the appearance of an object on the web .</p> <p>To understand that copyright means that those images are protected and to understand that we should do a "creative commons" image search if we wish to use images from the internet.</p> <p>To know what "fake news" is and ways to spot websites that carry this type of misinformation.</p> <p>To know what the "inspect" elements tool is and ways of using it to explore and alter text and images.</p>	<p>Code</p> <p>Component</p> <p>Content</p> <p>Copyright</p> <p>CSS</p> <p>end tag</p> <p>hacking</p> <p>heading</p> <p>headline</p> <p>hex code</p> <p>HTML</p> <p>Input</p> <p>Internet browser</p> <p>Output</p> <p>Paragraph</p> <p>Permission</p> <p>Remixing</p> <p>Script</p> <p>Start tag</p> <p>URL</p> <p>Webpage</p>