



**COMPUTING CURRICULUM MAP**  
**SKILLS, KNOWLEDGE AND UNDERSTANDING PROGRESSION**



Skill/National Curriculum	Year 3	Year 4	Year 5	Year 6
<p><b>MULTIMEDIA</b></p> <p>NC            Pupils should be taught to 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</p>	<p>I can use cameras to take images.</p> <p>I can use the internet to find images.</p> <p>I can find and combine images to create my own work.</p> <p>I can use the print screen function to capture an image.</p> <p>I can select certain areas of an image &amp; resize or rotate it.</p> <p>I can create a PowerPoint &amp; add or remove pages.</p> <p>I can change the font and colour</p> <p>My typing is improving in speed &amp; I use both hands.</p>	<p>I can plan a simple animation.</p> <p>I can edit &amp; improve my animation.            My typing is improving in speed.</p> <p>I can confidently use the keyboard.</p> <p>I can use font sizes, colours &amp; effects to convey meaning.</p> <p>I can combine text &amp; images on each page.</p> <p>I can align text to the left, right or centre.</p> <p>I can create a multi-track recording</p> <p>I can edit &amp; improve my recording</p>	<p>I can create a multimedia PowerPoint that combines, text &amp; graphics</p> <p>I can consider the audience for my presentation and adapt it by adding audio or visual effects.</p> <p>I can create a photo comic strip.</p> <p>I can choose and edit photos for my comic strip.</p> <p>I can add special effects and filters to my comic strip.</p> <p>I can present material in a range of forms, appropriate for the audience.</p>	<p>I can plan a multi-scene animation including characters, set, camera angles and special effects.</p> <p>I can use stop animation software to shoot my animation frames.</p> <p>I can add sound effects or a soundtrack to my animation.</p> <p>I can use special effects, add text, titles &amp; credits to my animation.            I can publish my animation &amp; save it so I can share it.</p> <p>I can take photos and think carefully about how to present them.</p> <p>I can use photo editing tools to enhance my photos.</p>
<p><b>VOCABULARY</b></p>	<p>Image, JPEG, print screen, copy / paste, resize, rotate, font, colour, slides, PowerPoint</p>	<p>Animation, insert, effect, text, align, record, edit</p>	<p>Graphics, audience, filters</p>	<p>Frame, stop animation</p>

<p><b>PROGRAMMING</b></p> <p><b>NC</b>  <b>Pupils should be taught to:</b>  <b>&gt;design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems;</b>  <b>&gt;solve problems by decomposing them into smaller parts, use sequence, selection, and repetition in programs;</b>  <b>&gt;work with variables and various forms of input and output. use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</b></p>	<p>I can use a variety of inputs in my code., e.g. key presses, user information, swipe.</p> <p>I can confidently use the repeat command in a series of instructions.</p> <p>I can use the “if ... then ...” command to introduce variables to my code.</p> <p>I can write a program to draw geometric patterns.</p> <p>I know algorithms can be shown as symbols, buttons or in a language.</p>	<p>I can create a background &amp; a sprite for a game.</p> <p>I can add inputs to control my sprite.</p> <p>I can use conditional sentences in my game (“if... then...” or “if... else...”)</p> <p>I know it can be easier to plan, test and correct parts of an algorithm separately.</p> <p>I understand a program as a sequence of statements written in a programming language</p>	<p>I can use external triggers &amp; infinite loops to control characters &amp; objects in my program.</p> <p>I can create &amp; edit variables I can use conditional statements.</p> <p>I know that Algorithms can be broken down into smaller parts (procedures), each of which is also an algorithm.</p> <p>I understand the term ‘debug’ and can test my programming to allow me to ‘debug’.</p> <p>I know that computers can be programmed so they appear to respond ‘intelligently’ to certain inputs.</p>	<p>I can identify and use variables. I am confident using a range of different statements e.g. timers, repeat, if .. then.. else I can use buttons &amp; functions.</p> <p>I can use statements that compare different variables e.g. less than/greater than .... I can design my own game including sprites, backgrounds, scoring and/or timers.</p> <p>My game uses conditional statements, loops, variables and broadcast messages.</p> <p>My game finishes if the player wins or loses and the player knows if they have won or lost.</p> <p>I can evaluate the effectiveness of my game and debug if required.</p>
<p><b>VOCABULARY</b></p>	<p>Input, code, repeat, if – then, variables, Program, algorithm</p>	<p>Sprite, background, if-else, program</p>	<p>Loops, edit, conditional statements, debug</p>	<p>Variable statements, scoring, broadcast messages</p>

<p><b>E- SAFETY/ONLINE</b></p> <p><b>NC</b> Pupils should be taught to:</p> <p>&gt; use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>&gt;use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	<p>I can type in a URL to find a website.</p> <p>I can add a website to my favourites.</p> <p>I can use a search engine to find different media e.g. text, images, videos.</p> <p>I can think of how to write a search to answer my question.</p> <p>I can talk about how reliable the information I find online is.</p> <p>I think before I send something online.</p> <p>I understand what sort of behaviour online would be unfair or unkind</p> <p>I question if what I read online is right or true.</p> <p>I understand the importance of a secure password.</p> <p>I know who to speak to if I find something I don't like online.</p>	<p>I can open, read, reply to and send emails.</p> <p>I can attach a file to my email.</p> <p>I can download &amp; save files from an email.</p> <p>I can email more than one person at once or participate in group emails by using "reply to all."</p> <p>I can give examples of good &amp; bad behaviour online.</p> <p>I tell an adult if anything worries me online.</p> <p>I can make judgements to help me stay safe online.</p> <p>I can use website names &amp; domain names (e.g. .gov, .org) to help me decide if a website is reliable.</p>	<p>I can use advanced search functions in Google e.g. quotations.</p> <p>I understand that websites like Wikipedia are made by users. I can discuss how this might affect its reliability.</p> <p>I can judge when to answer a question online &amp; when not to. I understand how to change my privacy settings &amp; how this keeps me safe online.</p> <p>I can explain what is good online behaviour.</p> <p>I behave as a good citizen online or friend, not as a "digital bystander" who does nothing when things are wrong.</p> <p>I can find &amp; give the website address for any resource or information I found online.</p>	<p>I can use the flag &amp; report buttons to report content online that upsets me.</p> <p>I know how CEOP can help me online.</p> <p>I understand that files can be saved to "cloud" servers such as Microsoft OneDrive and Dropbox.</p> <p>I can upload &amp; download files from a cloud server.</p> <p>I use different websites to check the information I have found online.</p> <p>I use strategies to check the reliability of information e.g. cross checking with books, comparing with a trusted site.</p>
<p><b>VOCABULARY</b></p>	<p>E-safety rules Secure passwords URL reliable</p>	<p>Domain Group email attachments</p>	<p>Responsible online communication Virus threats Blogs Messaging Digital Citizen / Footprint Scammer / Phishing</p>	<p>Reliability Accuracy Report CEOP</p>

<p><b>COMPUTERS ALL AROUND US</b></p> <p>NC : Pupils should be taught to 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.</p>	<p>I understand that information can be transferred between computers.</p> <p>I understand that wires connect computers together to make a network.</p> <p>I understand that it can appear a file is saved on one computer when actually it is on another.</p> <p>I understand that sometimes networks do not have wires.</p>	<p>I understand how computers connect to each other to make a network.</p> <p>I know which devices I use connect to the Internet.</p> <p>I understand the difference between software &amp; the computer's operating system.</p>	<p>I understand the different ways a device can connect to a network e.g. using a cable, a router or through Wi-Fi.</p> <p>I understand why devices connect to the Internet.</p> <p>I can explain and name the different parts that make up the inside of a computer or device.</p> <p>I know that there are different operating systems but that they do a similar job.</p> <p>I understand that the Internet is a large network made up of many different types of computers in different places.</p>	<p>I understand how computers are put together.</p> <p>I understand the function of the different components of a computer.</p> <p>I understand how different operating systems work.</p> <p>I know at least one of the key figures in the history of computing.</p>
<p><b>VOCABULARY</b></p>	<p>School network, Devices, Computer parts, wireless</p>	<p>Internet, Network, Software, Operating System</p>	<p>Cable, router, Wi-Fi, hard drive, processor, port, world wide web</p>	<p>Cable, router, Wi-Fi, hard drive, processor, port, world wide web</p>
<p><b>DATA HANDLING</b></p> <p>NC : Pupils should be taught to : 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.</p>	<p>I can choose information to put into a data table.</p> <p>I recognise which information is suitable for my topic.</p> <p>I can sort &amp; organise information to use in other ways.</p>	<p>I can create and search branching databases.</p> <p>I can create a database from information I have selected.</p> <p>I can use information in different ways e.g. forms, databases, spreadsheets, charts &amp; graphs.</p>	<p>I can create forms to collect data.</p> <p>I can enter data accurately.</p> <p>I know how to check for &amp; spot inaccurate data.</p> <p>I know how to use simple formulas &amp; I can use these to change my spreadsheet model.</p> <p>I can create graphs &amp; charts from my spreadsheet.</p>	<p>Create data collection forms and enter the information from them accurately.</p> <p>I can check for and spot inaccurate data.</p> <p>I can use formulae confidently in my spreadsheets.</p> <p>I can choose which type of chart is best to use for my data.</p> <p>I can sort and filter information.</p> <p>I know that changing my calculation will change my data.</p>

<b>VOCABULARY</b>	Questioning, Database, Construct Contribute, Sort, Recording data, Present data	Branching, forms, spreadsheet, table, chart, graph	Formula, product, total, sum, row, column, cell	Filter
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