

# Dane Ghyll Community Primary School Non-Negotiables

Computing skills should be taught when linked to  
Projects where possible to ensure real world  
application.



**Key Skills**  
Technology being used effectively in the  
classroom  
Awareness of e-safety  
How technology is used  
Basic programming skills

## Computing

|   | Year 1   | Year 2  | Year 3   | Year 4  | Year 5  | Year 6   |
|---|--|---|--|---|---|--|
| <b>Digital Literacy<br/>and Online<br/>Safety</b> | <p>Recognising common uses of information technology.</p> <p>Logging in and saving work on their own account.</p> <p>Knowing what to do if they have concerns about content or contact online.</p> <p>Understanding of how to create digital art using an online paint tool.</p> <p>Using technology purposefully to</p> | <p>Using word processing software to type and reformat text.</p> <p>Understanding the importance of staying safe online.</p> <p>Using technology purposefully to create stop frame animations.</p> <p>Using technology to create and label images</p> | <p>Understand cyberbullying and fake emails.</p> <p>Understanding the purpose of emails.</p> <p>Using database technology purposefully and use ordering and filter functions.</p> <p>Using digital movie technology to add effects such as</p> | <p>Selecting using and combining a variety of software to design and create a range of programs, systems and content that accomplish given goals.</p> <p>Understanding 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>Recognising that information on the Internet might not be true or correct.</p> | <p>Recognising that information on the Internet might not be true or correct.</p> <p>Know how to use key words to quickly find accurate information.</p> <p>Understand how internet networks can provide multiple services, such as the world-wide web; and the</p> | <p>Understanding the importance of secure passwords and using searching and word processing skills to create a presentation.</p> <p>Editing sound recordings for specific purpose.</p> <p>Understanding how learning can be applied to a real world context.</p> <p>Selecting, using and combining a</p> |

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|  | <p>create, organise, store, manipulate and retrieve digital content by altering images.</p> <p>Knowing what to do if they have concerns about content or contact online.</p> <p>Selecting software appropriately.</p>                        | <p>and to put data into a spreadsheet.</p>   | <p>transitions, music, voice and text.</p>   | <p>Using technology safely, by recognising acceptable/unacceptable behaviour and knowing what to do when they have concerns about content or contact online.</p> <p>Understanding why some sources are more trustworthy than others.</p>  | <p>opportunities they offer for communication and collaboration.</p> <p>Developing their CAD skills.</p>                  | <p>variety of software to design and create a range of programs, systems and content to collect, analyse, evaluate and present data.</p> <p>Showcasing their digital literacy skills by creating a thematic project.</p>                      |
| <p><b>Computational Thinking and Programming</b></p> | <p>Learning how to explore and tinker with hardware to find out how it works.</p> <p>Constructing a series of instructions into a simple algorithm.</p> <p>Applying computing concepts to real world situation in an unplugged activity.</p> | <p>Learning about inputs and outputs and how they are used in algorithms.</p> <p>Creating and debugging simple programs.</p> <p>Using logical reasoning to predict the behaviour of simple</p> | <p>Understanding that programs execute by following precise and unambiguous instructions by separating a computer into individual components .</p> <p>Using logical reasoning to explain how simple algorithms work.</p> <p>Designing,</p> | <p>Understanding that websites can be altered by exploring the code beneath the site.</p> <p>Solving problems by decomposing them into smaller parts using HTML and CSS.</p> <p>Understanding the role of inputs and outputs in computerised devices such as weather forecasting equipment and software.</p> <p>Understand what decomposition is and how it facilitates problem</p> | <p>Using block coding to program a device.</p> <p>Using programming language to create music, including use of loops.</p> | <p>Using programming software to understand hacking, relating this to computer cracking codes in WWII.</p> <p>Understanding that websites can be altered by exploring the code beneath the site.</p> <p>Demonstrating their computational</p> |

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|                               | <p>Understanding how to create algorithms.</p> <p>Learning that computers need information to be presented in a simple and clear way.</p> <p>Understanding how to break a computational thinking problem into smaller parts in order to solve it.</p> <p>Using logical reasoning to predict the behaviour of simple programs.</p> | <p>programs.</p> <p>Understanding what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</p> <p>Consider inputs and outputs to understand how sensors work.</p> | <p>writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.</p> <p>Solving problems by decomposing them into smaller parts.</p> <p>Using sequence, selection, and repetition in programs.</p> <p>To include variables and various forms of input and output.</p> <p>To use scratch to create simple games.</p> | <p>solving.</p> <p>Understand abstraction and patterns recognition using the four pillars of Computational thinking.</p> |  | <p>thinking skills by designing and debugging programs, using different inputs and outputs.</p> |
| <p>Computers and Hardware</p> | <p>Learning to locate where keys are on the keyboard.</p> <p>Developing basic mouse skills.</p> <p>Using cameras or</p>   | <p>Understanding what a computer is and the role of individual components.</p> <p>Understanding how to use</p>  | <p>Understanding what different components of a computer do.</p> <p>Identifying network components</p>   | <p>Identify components of a network and understand how they used to connect to the Internet.</p>                         | <p>Understand how external devices can be programmed by a separate computer.</p> <p>Using search</p> | <p>Explain the history of computers and how they evolved over time.</p> <p>Understanding</p>    |

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|  | <p>tablets to take photos.</p> <p>Recognising uses of technology beyond school.</p> | <p>tablets or computers to take photos.</p> | <p>and how data is transferred.</p> |  | <p>technologies effectively, appreciating how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>Recognising that computers transfer data in binary and understand simple binary addition</p> <p>Understanding how image data is transferred.</p> | <p>that computer networks provide multiple services.</p> <p>Understanding how barcodes and QR codes work.</p> <p>Understanding how search engines work and knowing how to use them safely and effectively.</p> |
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