



## Subject Overview | Computing

### Zetland Primary School

Year Group: 5

Computing Year 5	Autumn	Spring	Summer
<p><b>Scientific Enquiry Objectives</b></p> <ul style="list-style-type: none"> <li>• Pupils should be taught to:</li> <li>• design, write and debug programs that accomplish specific goals, including controlling</li> <li>• or simulating physical systems; solve problems by decomposing them into smaller</li> <li>• parts</li> <li>• use sequence, selection, and repetition in programs; work with variables and various</li> <li>• forms of input and output</li> <li>• use logical reasoning to explain how some simple algorithms work and to detect and</li> <li>• correct errors in algorithms and programs</li> <li>• understand computer networks including the internet; how they can provide multiple</li> <li>• services, such as the world wide web; and the opportunities they offer for</li> <li>• communication and collaboration</li> </ul>	<p><b>Online Safety (5.2)</b></p> <p>To gain a greater understanding of the impact that sharing digital content can have.</p> <ul style="list-style-type: none"> <li>• To review sources of support when using technology and children's responsibility to one another in their online behaviour.</li> <li>• To know how to maintain secure passwords.</li> <li>• To understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this.</li> <li>• To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.</li> <li>• To learn about how to reference sources in their work.</li> </ul> <p>To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information.</p> <p>To ensure reliability through using different methods of communication.</p> <p><b>Databases (5.4)</b></p> <p>To learn how to search for information in a database.</p>	<p><b>Coding (5.1)</b></p> <p>To begin to simplify code.</p> <ul style="list-style-type: none"> <li>• To create a playable game.</li> <li>• To understand what a simulation is.</li> <li>• To program a simulation using 2Code.</li> <li>• To know what decomposition and abstraction are in computer science.</li> <li>• To take a real-life situation, decompose it and think about the level of abstraction.</li> </ul> <p>To understand how to use friction in code.</p> <p>To begin to understand what a function is and how functions work in code.</p> <ul style="list-style-type: none"> <li>• To understand what the different variables types are and how they are used differently.</li> <li>• To understand how to create a string.</li> <li>• To understand what concatenation is and how it works.</li> </ul>	<p><b>3D Modelling (5.6)</b></p> <p>To be introduced to 2Design and Make and the skills of computer aided design.</p> <ul style="list-style-type: none"> <li>• To explore the effect of moving points when designing.</li> <li>• To design a 3D Model to fit certain criteria.</li> <li>• To refine and print a model.</li> </ul> <p><b>Concept Maps (5.7)</b></p> <p>To understand the need for visual representation when generating and discussing complex ideas.</p> <ul style="list-style-type: none"> <li>• To understand the uses of a 'concept map'.</li> <li>• To understand and use the correct vocabulary when creating a concept map.</li> <li>• To create a concept map.</li> <li>• To understand how a concept map can be used to retell stories and information.</li> <li>• To create a collaborative concept map and present this to</li> </ul>



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<ul style="list-style-type: none"><li>• use search technologies effectively, appreciate how results are selected and ranked,</li><li>• and be discerning in evaluating digital content</li><li>• select, use and combine a variety of software (including internet services) on a range of</li><li>• digital devices to design and create a range of programs, systems and content that</li><li>• accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li><li>• use technology safely, respectfully and responsibly; recognise</li><li>• acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li></ul>	<ul style="list-style-type: none"><li>• To contribute to a class database.</li><li>• To create a database around a chosen topic.</li></ul>		