



Subject Overview | Computing
Zetland Primary School

Year Group: 5/6

Computing Year 5 and 6	Autumn	Spring	Summer
<p>Scientific Enquiry Objectives</p> <ul style="list-style-type: none"> • Pupils should be taught to: • design, write and debug programs that accomplish specific goals, including controlling • or simulating physical systems; solve problems by decomposing them into smaller • parts • use sequence, selection, and repetition in programs; 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 • 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 align="center">Cycle A</p> <p>Spreadsheets (6.3) To use a spreadsheet to investigate the probability of the results of throwing many dice.</p> <ul style="list-style-type: none"> • To use a spreadsheet to calculate the discount and final prices in a sale. • To use a spreadsheet to plan how to spend pocket money and the effect of saving money. • To use a spreadsheet to plan a school charity day to maximise the money donated to charity. <p>Online Safety 6.2 To identify benefits and risks of mobile devices broadcasting the location of the user/device.</p> <ul style="list-style-type: none"> • To identify secure sites by looking for privacy seals of approval. • To identify the benefits and risks of giving personal information. • To review the meaning of a digital footprint. • To have a clear idea of appropriate online behaviour. • To begin to understand how information online can persist. • To understand the importance of balancing game and screen time with 	<p>Coding (6.1) To design a playable game with a timer and a score.</p> <ul style="list-style-type: none"> • To plan and use selection and variables. • To understand how the launch command works. • To use functions and understand why they are useful. • To understand how functions are created and called. • To use flowcharts to create and debug code. • To create a simulation of a room in which devices can be controlled. • To understand how user input can be used in a program. • To understand how 2Code can be used to make a text-adventure game. 	<p>Networks (6.5) To learn about what the Internet consists of.</p> <ul style="list-style-type: none"> • To find out what a LAN and a WAN are. • To find out how the Internet is accessed in school. • To research and find out about the age of the Internet. • To think about what the future might hold for networking.



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<ul style="list-style-type: none"> • use search technologies effectively, appreciate how results are selected and ranked, • and be discerning in evaluating digital content • 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 • use technology safely, respectfully and responsibly; recognise • acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<p>other parts of their lives.</p> <ul style="list-style-type: none"> • To identify the positive and negative influences of technology on health and the environment. 		
<p>Cycle B</p>			
	<p>Online Safety (5.2) To gain a greater understanding of the impact that sharing digital content can have.</p> <ul style="list-style-type: none"> • To review sources of support when using technology and children's responsibility to one another in their online behaviour. • To know how to maintain secure passwords. • To understand the advantages, disadvantages, permissions and purposes of altering an image digitally 	<p>Coding (5.1) To begin to simplify code.</p> <ul style="list-style-type: none"> • To create a playable game. • To understand what a simulation is. • To program a simulation using 2Code. • To know what decomposition and abstraction are in computer science. • To take a real-life situation, decompose it and think about the level of abstraction. <p>To understand how to use friction in code.</p>	<p>3D Modelling (5.6) To be introduced to 2Design and Make and the skills of computer aided design.</p> <ul style="list-style-type: none"> • To explore the effect of moving points when designing. • To design a 3D Model to fit certain criteria. • To refine and print a model. <p>Concept Maps (5.7) To understand the need for visual representation when generating and</p>



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	<p>and the reasons for this.</p> <ul style="list-style-type: none">• To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.• To learn about how to reference sources in their work. <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>Databases (5.4)</p> <p>To learn how to search for information in a database.</p> <ul style="list-style-type: none">• To contribute to a class database.• To create a database around a chosen topic.	<p>To begin to understand what a function is and how functions work in code.</p> <ul style="list-style-type: none">• To understand what the different variables types are and how they are used differently.• To understand how to create a string.• To understand what concatenation is and how it works.	<p>discussing complex ideas.</p> <ul style="list-style-type: none">• To understand the uses of a 'concept map'.• To understand and use the correct vocabulary when creating a concept map.• To create a concept map.• To understand how a concept map can be used to retell stories and information.• To create a collaborative concept map and present this to an audience.
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