

Key Stage 2 Computing Curriculum Overview

	Computer Science
	Information Technology
	Digital Literacy

Year group	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Year 3	<p>Unit 3.1 Coding (6 lessons)</p> <ul style="list-style-type: none"> Why is it useful to use a flowchart to design a computer program? What does repeat mean in computer programming? What is the difference between 'timer after' and 'timer every'? 	<p>Unit 3.2 Online safety (3 lessons)</p> <ul style="list-style-type: none"> What is a password and why should we keep them safe? Is everything I read on the Internet true? How do I know if I am old enough to play a computer game? <p>Unit 3.3 Spreadsheets (6 lessons)</p> <ul style="list-style-type: none"> Explain how you would collect data to find out children's favourite school subjects. What sort of graph would you create? How can you make a 3 times table machine using the spin tool? Could you use the equals tool to check your answer? 	<p>Unit 3.4 Touch Typing (4 lessons)</p> <ul style="list-style-type: none"> Why should I have a good posture at the computer? Why should I type certain keys with certain fingers? 	<p>Unit 3.5 Email - including email safety (6 lessons)</p> <ul style="list-style-type: none"> What is email? What should I do if I receive an email that makes me upset or scared? What information can I send in an email? 	<p>Unit 3.6 Branching Databases (4 lessons)</p> <ul style="list-style-type: none"> What is meant by data? What is a database? What is a branching database? <p>Unit 3.7 Simulations (3 lessons)</p> <ul style="list-style-type: none"> What is a computer simulation? What kind of simulations are there? Are there any problems with simulations? 	<p>Unit 3.8 Graphing (2 lessons)</p> <ul style="list-style-type: none"> What is a graph? What are the frame lines on the graph called? What different kinds of graphs are there? <p>Unit 3.10 micro:bits (4 lessons)</p> <ul style="list-style-type: none"> What does a repeat forever loop do? What outputs does a micro:bit have? What inputs does a micro:bit have?

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		<ul style="list-style-type: none"> Explain how you would locate a cell in the advanced mode? 				
Year 4	<p>Unit 4.1 Coding (6 lessons)</p> <ul style="list-style-type: none"> Explain the stages of the design, code, test, debug coding process. What does selection mean in coding and how can you achieve this in 2Code? How can variables and if/else statements be useful when coding programs with selection? What is the difference between the different object types in 2Code Gibbon level? 	<p>Unit 4.2 Online safety (4 lessons)</p> <ul style="list-style-type: none"> What is meant by a digital footprint? What is SPAM? What is meant by plagiarism? <p>Unit 4.8 Hardware Investigators (2 lessons)</p> <ul style="list-style-type: none"> What is the difference between hardware and software? 	<p>Unit 4.10 Artificial Intelligence (4 lessons)</p> <ul style="list-style-type: none"> What is artificial intelligence? How is artificial intelligence used in our lives? <p>Unit 4.11 micro:bits (4 lessons)</p> <ul style="list-style-type: none"> How can sensors, code and outputs work together? What examples can you think of a good use for variables when programming micro:bits? 	<p>Unit 4.11 Continued</p> <p>Unit 4.4 Writing for different audiences (5 lessons)</p> <ul style="list-style-type: none"> Why should I change the font when I am writing? 	<p>Unit 4.5 Logo (4 lessons)</p> <ul style="list-style-type: none"> What is Logo? <p>Unit 4.6 Animation (3 lessons)</p> <ul style="list-style-type: none"> What is an animation? What is meant by onion skinning? What is meant by stop motion animation? 	<p>Unit 4.7 Effective Search (3 lessons)</p> <ul style="list-style-type: none"> What is a search engine? <p>Unit 4.9 Making Music (4 lessons)</p> <ul style="list-style-type: none"> What is the difference between melody and rhythm?

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Year 5	<p>Unit 5.1 Coding (6 lessons)</p> <ul style="list-style-type: none"> • What does simulating a physical system mean? • Describe how you would use variables to make a timer countdown and a scorepad for a game. • Give examples of how you could use the Launch command in 2Code. • What do the terms decomposition and abstraction mean? Use examples to explain them. <p>Unit 5.2 Online safety (3 lessons)</p> <ul style="list-style-type: none"> • Who do I tell if I see anything online that makes me upset or scared? • Why are passwords so important? • Why is it important to reference sources in my work? 	<p>Unit 5.9 Using external devices (6 lessons)</p> <ul style="list-style-type: none"> • Describe some uses for an external device. Describe how you would link a 2Code program to the external device. • What actions of the device can provide input? • What output can be sent to the external device? 	<p>Unit 5.3 Spreadsheets (6 lessons)</p> <ul style="list-style-type: none"> • How would you add a formula so that the cell shows the product of two other cells? • What would you use in 2Calculate to have a cell that automatically calculates the number of days since a certain date? • Explain what a spreadsheet model of a real-life situation is and what it can be used for? 	<p>Unit 5.4 Databases (4 lessons)</p> <ul style="list-style-type: none"> • What is a database? • Why is the collaborative feature important? • In what ways can I sort information in a database? 	<p>Unit 5.5 Game Creator (5 lessons)</p> <ul style="list-style-type: none"> • What is the 2DIY3D tool on Purple Mash? • What makes a good computer game? • Why is it important to continually evaluate your game? <p>Unit 5.6 3D Modelling (4 lessons)</p> <ul style="list-style-type: none"> • What are the different view of an object available in 2Design and Make? • How can the objects designed in 2Design and Make be turned into 3D objects? • How is CAD software used in industry? Give some examples. 	<p>Unit 5.6 - continued</p> <p>Unit 5.7 Concept Maps (4 lessons)</p> <ul style="list-style-type: none"> • What is a concept map? • How is information arranged on a concept map? • How does a concept map help share ideas? <p>Unit 5.10 micro:bits (4 lessons)</p> <ul style="list-style-type: none"> • What sensors does a microbit have? • How can the microbit respond to external signals such as the touch of foil? • How can sensors, code and outputs work together?

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Year 6	<p>Unit 6.1 Coding (6 lessons)</p> <ul style="list-style-type: none"> • How can you use Tabs in 2Code Gorilla? • What is a function in coding? Give an example that you have used in 2Code Gorilla. • In 2Code Gorilla, how can a program receive user input? 	<p>Unit 6.2 Online safety (2 lessons)</p> <ul style="list-style-type: none"> • Why do I need to be aware of the dangers of being online? • What is meant by my digital footprint? • Why is it important to think about how much time use a screen for? <p>Unit 6.4 Blogging (4 lessons)</p> <ul style="list-style-type: none"> • What is a blog? • What can a blog be about? • How are the audience involved in a blog? 	<p>Unit 6.8 Understanding Binary (4 lessons)</p> <ul style="list-style-type: none"> • How does binary relate to the programs that you use or create? • How does binary relate to computer memory? • How would you write the numbers 0 to 10 in binary? 	<p>Unit 6.5 Text Adventure (5 lessons)</p> <ul style="list-style-type: none"> • What is a text- based adventure? • Why is it important to plan a text-based adventure? 	<p>Unit 6.6 Networks (3 lessons)</p> <ul style="list-style-type: none"> • What is the difference between the Internet and the World Wide Web? • What is the difference between a LAN and a WAN? • Who is Tim Berners Lee? <p>Unit 6.7 Quizzing (6 lessons)</p> <ul style="list-style-type: none"> • What factors do you need to consider when creating a quiz? • Name three question types in 2Quiz • Apart from the questions, what else does a quiz need to contain? 	<p>Unit 6.7 Continued</p> <p>Coming soon - micro:bits</p>