Individual Year Subject Map **Subject: Computing** **Year 4**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Drivers	Environment Creativity Communication Well-being Wider Community Opportunities	Environment Creativity Communication Well-being Wider Community Opportunities	Environment Creativity Communication Well-being Wider Community Opportunities	Environment Creativity Communication Well-being Wider Community Opportunities	Environment Creativity Communication Well-being Wider Community Opportunities	Environment Creativity Communication Well-being Wider Community Opportunities
National Curriculum	**Unit 4.1 – Coding** • **Computer Science** – Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • **Computer Science** – Use sequence, selection and repetition in programs; work with variables and various forms of input and output • **Computer Science** - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • **Information Technology** – 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	**Unit 4.2 – Online Safety** • **Computer Science** – 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 • **Digital Literacy** – Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact **Unit 4.7 – Effective Searching** • **Computer Science** – 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 • **Information Technology** – Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	**Unit 4.3 - Spreadsheets** • **Information Technology** – 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	**Unit 4.4 – Writing for Different Audiences** • **Information Technology** – 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	**Unit 4.5 - Logo** • **Computer Science** – Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • **Computer Science** – Use sequence, selection and repetition in programs; work with variables and various forms of input and output • **Computer Science** – Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs **Unit 4.6 - Animation** • **Information Technology** – 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	**Unit 4.8 – Hardware Investigators** • **Computer Science** – 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 • **Information Technology** – 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 **Unit 4.9 – Making Music** • **Information Technology** – 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

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<td>Skills</td>
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Computer Science

I can turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code.
I can use repetition in my code. For example, using a loop that continues until a condition is met such as the correct answer being entered.
I can use timers within my program designs more accurately to create repetition effects. For example, I can create a counting machine.
I can use selection (decision) in my programming. For example, using an ‘if statement’ for a question being asked and the program takes one of two paths.
I can use variables within my program and know how to change the value of variables.
I can use the user inputs and output features within my program, such as ‘Print to screen’.
I can identify errors in my code by using different methods, such as steeping through lines of code and fixing them.
I can read programs that contain several steps and predict the outcomes with increasing accuracy.
I recognise the main component parts of hardware which allow computers to join and form a network.
I understand that network and communication components can be found in many different devices which allow them to join the internet.

Information Technology

I understand the purpose of a search engine and the main features within it.
I can look at information on a webpage and make predictions about the accuracy of information contained within it.
I can create and improve my solutions to a problem based on feedback. For example, create a program using 2Code.
I can review solutions that others have created, using a checklist of criteria.
I can work collaboratively to create content and solutions.
I can share digital content using a variety of applications such as: 2Blog, 2Email and Display Boards.

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Digital Literacy

I have a good understanding of the online safety rules we learn at school.
I can demonstrate how to use different online technologies safely.
I can demonstrate how to use a few different online services safely.
I know I have a right to privacy both on and offline.
I recognise that my wellbeing can be affected by how I use technology.
I can report with ease any concerns with content and contact online and know immediate strategies to keep safe.

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Enrichment Trips/Visitors	•	•	•	•	•	•