

Year Group	Reception	Year 1	Year 2	Year 3	Year 4
Topic	All About Me; Winter Wonderland	Toys	Toys	Rotten Romans	Rotten Romans
Skills:					
Computer Science	<p>Know how to operate simple equipment e.g. turns on CD player and uses remote control (30-50 months)</p> <p>Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images (30-50 months)</p> <p>Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones (30-50 months)</p> <p>Completes a simple program on a computer (40-60 months)</p> <p>Uses ICT hardware to interact with age-appropriate computer software (40-60 months)</p>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. (Unit 1:4)</p> <p>Create and debug simple programs.</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. (Unit 2.1)</p> <p>Create and debug simple programs.</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. (Unit 3.1)</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. (Unit 3.1)</p> <p>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>	<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. (Unit 4.1)</p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. (Unit 4.1)</p> <p>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>
Information Technology	<p>Knows that information can be retrieved from computers (30-50 months)</p> <p>Select and use technology for particular purposes. (ELG)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (Unit 1.2 & 1.3)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (Unit 2.3)</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>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,</p>	<p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>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</p>

				evaluating and presenting data and information.	presenting data and information.
Digital Literacy	Recognise that a range of technology is used in places such as homes and schools. (ELG)	Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. (Unit 1:1)	Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. (Unit 2:2)	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact. (Unit 3.2)	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact. (Unit 4.2)
Knowledge	Reception	Year 1	Year 2	Year 3	Year 4
<p>NC aims for Key Stages 1 (Years 1 and 2) and 2 (Years 3-4)</p> <p>C1: can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation</p> <p>C2: can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems</p> <p>C3: can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems</p> <p>C4: are responsible, competent, confident and creative users of information and communication technology.</p> <p>EYFS Early Learning Goals:</p> <p>To recognise that a range of technology is used in places such as homes and schools. To select and use technology for particular purposes.</p>	<p>2Paint:</p> <p><i>Paint project</i> – draw and label a happy face.</p> <p><i>Paint project</i> – draw and label your body. <i>Paint project</i> – alphabet tracing, number tracing.</p> <p><i>2Paint tools</i> - spinner, swirly, slice.</p> <hr/> <p>Drag & drop:</p> <p><i>Mini-Mash</i> - measuring.</p> <p><i>Simple city</i> – number/alphabet jigsaws.</p> <p><i>Purple Mash</i> – Writing gift labels (Christmas).</p> <p><i>Paint project</i> - create firework pictures/rangoli patterns.</p>	<p>Unit 1.1</p> <p>Online Safety & Exploring Purple Mash; Use technology safely & respectfully, keeping personal information private; where to get help</p> <p>Unit 1.2</p> <p>Grouping & Sorting</p> <p><i>2DIY</i></p> <p>create, organise, store, manipulate & retrieve digital content - sort various items online</p> <hr/> <p>Unit 1.3</p> <p>Pictograms</p> <p><i>2Count</i></p> <p>create, organise, store, manipulate and retrieve digital content: class pictogram</p> <p>Unit 1.4</p> <p>Lego Builders</p> <p><i>2DIY</i></p> <p>Introduction to understanding what algorithms are & order recipe instructions and “debug”</p>	<p>Unit 2.2</p> <p>Online Safety</p> <p>Exploring Purple Mash; Use technology safely and respectfully, keeping personal information private; where to get help</p> <p>Unit 2.1</p> <p>Coding</p> <p><i>2Code</i></p> <p>Understand algorithms, create & debug; use logical reasoning</p> <hr/> <p>Unit 2.3</p> <p>Spreadsheets</p> <p><i>2Calculate</i></p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content - cut and paste; to add amounts; to create a table and block graph</p>	<p>Coding 3.1</p> <p><i>2Code</i></p> <p>Design, write and debug programs Use sketch or storyboard to represent a program design and algorithm. To know what decomposition and abstraction are. Use logical reasoning and detect and correct errors</p> <hr/> <p>Unit 3.2</p> <p>Online Safety</p> <p><i>2Connect (Mind Map)</i></p> <p><i>2Publish Plus Display boards</i></p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Understand computer networks, including the Internet.</p>	<p>Coding 4.1</p> <p><i>2Code</i></p> <p>Design, write and debug programs Use sketch or storyboard to represent a program design and algorithm. To know what decomposition and abstraction are. Use logical reasoning and detect and correct errors</p> <hr/> <p>Unit 4.2</p> <p>Online Safety</p> <p><i>2Connect (Mind Map)</i></p> <p><i>2Publish Plus Display boards</i></p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>Understand computer networks, including the Internet.</p>