

Year Group	Reception	Year 1	Year 2	Year 3	Year 4
Topic	All About Me; Fabulous Festivals	Famous People	Famous People	Tomb Raiders	Tomb Raiders
<b>Skills:</b>					
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><b>Completes a simple program on a computer (40-60 months)</b></p> <p><b>Uses ICT hardware to interact with age-appropriate computer software (40-60 months)</b></p>	<p><b>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)</b></p> <p>Create and debug simple programs.</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>	<p><b>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)</b></p> <p>Create and debug simple programs.</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>	<p><b>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)</b></p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p> <p><b>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. (Unit 4.1)</b></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><b>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)</b></p> <p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p> <p><b>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. (Unit 4.1)</b></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><b>Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (Unit 1.2 &amp; 1.3)</b></p>	<p><b>Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (Unit 2.3)</b></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 presenting data and information.</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 presenting data and information.</p>

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 4.2)	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><b>NC aims for Key Stages 1 (Years 1 and 2) and 2 (Years 3-4)</b></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><b>EYFS Early Learning Goals:</b> 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><b>2Paint:</b> <i>Paint project</i> – draw and label a happy face. <i>Paint project</i> – draw and label your body. <i>Paint project</i> – alphabet tracing, number tracing. <b>2Paint tools</b> - spinner, swirly, slice.</p> <p>-----</p> <p><b>Drag &amp; drop:</b> <i>Mini-Mash</i> - measuring. <i>Simple city</i> – number/alphabet jigsaws. <i>Purple Mash</i> – Writing gift labels (Christmas). <i>Paint project</i> - create firework pictures/rangoli patterns.</p>	<p><b>Unit 1.1</b> <b>Online Safety</b> &amp; Exploring Purple Mash; Use technology safely &amp; respectfully, keeping personal information private; where to get help</p> <p><b>Unit 1.2</b> <b>Grouping &amp; Sorting</b> <i>2DIY</i> create, organise, store, manipulate &amp; retrieve digital content - sort various items online</p> <p>-----</p> <p>-</p> <p><b>Unit 1.3</b> <b>Pictograms</b> <i>2Count</i> create, organise, store, manipulate and retrieve digital content: class pictogram</p> <p><b>Unit 1.4</b> <b>Lego Builders</b> <i>2DIY</i> Introduction to understanding what algorithms are &amp; order recipe instructions and “debug”</p>	<p><b>Unit 2.2</b> <b>Online Safety</b> Exploring Purple Mash; Use technology safely and respectfully, keeping personal information private; where to get help</p> <p><b>Unit 2.1</b> <b>Coding</b> <i>2Code</i> Understand algorithms, create &amp; debug; use logical reasoning</p> <p>-----</p> <p><b>Unit 2.3</b> <b>Spreadsheets</b> <i>2Calculate</i> 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><b>Coding 4.1</b> <i>2Code</i> 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> <p>-----</p> <p>-</p> <p><b>Unit 4.2</b> <b>Online Safety</b> <i>2Connect (Mind Map)</i> <i>2Publish Plus Display boards</i> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Understand computer networks, including the Internet.</p>	<p><b>Coding 4.1</b> <i>2Code</i> 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> <p>-----</p> <p>-</p> <p><b>Unit 4.2</b> <b>Online Safety</b> <i>2Connect (Mind Map)</i> <i>2Publish Plus Display boards</i> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Understand computer networks, including the Internet.</p>