

Year Group	Reception	Year 1	Year 2	Year 3	Year 4
Topic	Dinosaurs; Traditional Tales	London	London	Disappearing Rainforests	Disappearing Rainforests
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.</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.</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.</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.</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.</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.</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.</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</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>

<p>Digital Literacy</p>	<p>Recognise that a range of technology is used in places such as homes and schools. (ELG)</p>	<p>Recognise common uses of information technology beyond school.</p> <p>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.</p>	<p>Recognise common uses of information technology beyond school.</p> <p>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.</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.</p>	<p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.</p>
<p>Knowledge</p>	<p>Reception</p>	<p>Year 1</p>	<p>Year 2</p>	<p>Year 3</p>	<p>Year 4</p>
<p>NC aims for Key Stages 1 (Years 1 and 2) and 2 (Years 3-4) C1: can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation C2: can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems C3: can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems C4: are responsible, competent, confident and creative users of information and communication technology.</p>	<p>2Count & 2Go: 2Count – Data handling. Create a pictogram. 2Go – programing. Programming BeeBots. Paint project - create own dinosaurs using scaly felt tips. Purple Mash - writing dinosaur captions.</p> <hr/> <p>2Beat: 2Beat – create a sequence of sounds to accompany a traditional tale. Purple Mash – The lifecycle of a butterfly. Paint project – Gingebread man. Use camera on iPads to observe/record the life cycle of a hen/butterfly.</p>	<p>Unit 1.5 Maze Explorers 2Go Understanding algorithms; programming an object in a maze to following precise and unambiguous instructions. Use logical reasoning</p> <hr/> <p>Unit 1.6 Animated Story Books 2Create A Story Use technology purposefully to create, organise, store, manipulate and retrieve digital content - create own ebooks with moving content</p>	<p>Unit 2.4 Questioning 2Question 2Investigate Use technology purposefully to create, organise, store, manipulate and retrieve digital content Use a binary tree and database to answer search questions.</p> <hr/> <p>Unit 2.5 Effective Searching Browser Recognise common uses of information technology beyond school Create a leaflet to consolidate knowledge of effective Internet searching.</p>	<p>Unit 4.3 Spreadsheets 2Calculate Select, use and combine a variety of software Use formula wizard to add formulae & format cells; timer and spin; budgeting and exploring place value</p> <hr/> <p>Unit 4.4 Writing for different audiences Writing Templates 2Simulate 2Connect (Mind Map) 2Publish Plus Select, use and combine a variety of software Explore how font size and style affect the impact of a text; Use a simulated scenario to produce a news report: Use a simulated scenario to write for a community campaign.</p>	<p>Unit 4.3 Spreadsheets 2Calculate Select, use and combine a variety of software Use formula wizard to add formulae & format cells; timer and spin; budgeting and exploring place value</p> <hr/> <p>-- Unit 4.4 Writing for different audiences Writing Templates 2Simulate 2Connect (Mind Map) 2Publish Plus Select, use and combine a variety of software Explore how font size and style affect the impact of a text; Use a simulated scenario to produce a news report: Use a simulated scenario to write for a community campaign.</p>