

Computing		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	NC Aims
EYFS	<p>Personal, Social and Emotional Development</p> <p>Physical Development</p> <p>Expressive Arts and Design</p> <p>Understanding the World</p>	<p>Making relationships</p> <p>Establishing rules and boundaries</p> <p>I am learning new vocabulary</p> <p>Daily fine motor activities</p> <p>Targeted fine motor interventions</p> <p>Daily activate/Dough disco</p> <p>6 movements for Kinetic letters</p> <p>Use of IWB for activities</p> <p>Home Corner</p>	<p>Daily fine motor activities</p> <p>Targeted fine motor interventions</p> <p>Daily activate/Dough disco</p> <p>6 movements for Kinetic letters</p> <p>Use of IWB for activities</p> <p>Home Corner</p>	<p>Cooperation</p> <p>I can retell a story</p> <p>Use new vocabulary</p> <p>I can tell you my ideas and thoughts in well-formed sentences</p> <p>Writing a story together</p> <p>Daily fine motor activities</p> <p>Targeted fine motor interventions</p> <p>Daily activate/Dough disco</p> <p>6 movements for Kinetic letters</p> <p>Use of IWB for activities</p> <p>Home Corner</p>	<p>Daily fine motor activities</p> <p>Targeted fine motor interventions</p> <p>Daily activate/Dough disco</p> <p>6 movements for Kinetic letters</p> <p>Use of IWB for activities</p> <p>Home Corner</p>	<p>Managing our feelings</p> <p>Show perseverance and resilience</p> <p>I can make comments about what I have heard and ask question to reinforce my understanding</p> <p>I can offer explanations why things might happen.</p> <p>I can express my ideas and feelings about my experiences using full sentences, including past, present and future tenses.</p> <p>Daily fine motor activities</p> <p>Targeted fine motor interventions</p> <p>Daily activate/Dough disco</p> <p>6 movements for Kinetic letters</p> <p>Use of IWB for activities</p> <p>Home Corner</p>	<p>I can make comments about what I have heard and ask question to reinforce my understanding</p> <p>I can offer explanations why things might happen.</p> <p>I can express my ideas and feelings about my experiences using full sentences, including past, present and future tenses.</p> <p>Daily fine motor activities</p> <p>Targeted fine motor interventions</p> <p>Daily activate/Dough disco</p> <p>6 movements for Kinetic letters</p> <p>Use of IWB for activities</p> <p>Home Corner</p>	<ul style="list-style-type: none"> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
Y1	<p>Computer Science</p> <p><i>(How computers and computer systems work and how they are designed and programmed)</i></p>	<p>Unit 1.1 Online safety (4)</p> <ul style="list-style-type: none"> - Log in / log out - Save and retrieve work - Using Purple Mash / tools <p>NC: 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>Unit 1.2 Grouping and sorting (2)</p> <ul style="list-style-type: none"> - sorting against criteria both offline and online <p>NC: 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>Unit 1.7 Coding (6)</p> <ul style="list-style-type: none"> - Instructions - Objects and actions - Events - How code executes - Backgrounds / scale - Plan and make computer program <p>NC: 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>NC: Create and debug simple programs</p> <p>NC: Use logical reasoning to predict the behaviour of simple programs.</p> <p>NC: Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Unit 1.3 Pictograms (3)</p> <ul style="list-style-type: none"> - data in pictures - pictograms - recording results <p>NC: Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Unit 1.8 Spreadsheets (3)</p> <ul style="list-style-type: none"> - Navigate spreadsheets - Images / move / lock - 'Speak' and 'count' tools <p>NC: Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Unit 1.9 Technology outside school (2)</p> <ul style="list-style-type: none"> - Technology in the community <p>NC: Recognise common uses of information technology beyond school</p>	<p>The national curriculum for computing aims to ensure that all pupils:</p> <ul style="list-style-type: none"> ♣ can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation ♣ can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems ♣ can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems ♣ are responsible, competent, confident and creative users of information and communication technology.
Y2	<p>Information Technology</p> <p><i>(the purposeful use of existing programs to develop products and solutions)</i></p> <p>Digital Literacy</p> <p><i>(the skills, knowledge and understanding needed in order to participate fully and safely in an increasingly digital world)</i></p>	<p>Unit 2.1 Coding (6)</p> <ul style="list-style-type: none"> - Algorithms - Collision detection event - Timed sequences - Coding events - Buttons in a program - Debugging <p>NC: 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>NC: Create and debug simple programs</p> <p>NC: Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Unit 2.2 Online Safety (3)</p> <ul style="list-style-type: none"> - Searching and sharing - Email - Digital footprint <p>NC: 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>Unit 2.5 Effective searching (3)</p> <ul style="list-style-type: none"> - Internet searching and key terminology - Search engine and web pages - Effective searching <p>NC: Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>NC: Recognise common uses of information technology beyond school</p>	<p>Unit 2.3 Spreadsheets (4)</p> <ul style="list-style-type: none"> - Reviewing spreadsheets (from Y1) - Copying/pasting - Adding amount - Tables/block graphs <p>NC: Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Unit 2.4 Questioning (5)</p> <ul style="list-style-type: none"> - creating pictograms - Y/N questions to separate information - Binary trees - Databases <p>NC: Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Unit 2.7 Making music (3)</p> <ul style="list-style-type: none"> - Digital sounds: explore, edit, combine - Adding sounds to express feelings - Upload and record sounds <p>NC: Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>Unit 2.8 Presenting ideas (4)</p> <ul style="list-style-type: none"> - Presenting stories in different ways - Quizzes - Fact files: clipart, tables etc. - Present digital content <p>NC: Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>♣ can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems</p> <p>♣ are responsible, competent, confident and creative users of information and communication technology.</p>
Y3	<p>Computer Science</p>	<p>Unit 3.1 Coding (6)</p> <ul style="list-style-type: none"> - Flow charts - Timers 	<p>Unit 3.2 Online Safety (3)</p> <ul style="list-style-type: none"> - Passwords, communication online, blogs 	<p>Unit 3.4 Touch typing (4)</p>	<p>Unit 3.5 Email (including email safety) (6)</p> <ul style="list-style-type: none"> - Types of communication 	<p>Unit 3.8 Graphing (3)</p> <ul style="list-style-type: none"> - Entering data to produce graphs 	<p>Unit 3.6 Branching databases (4)</p> <ul style="list-style-type: none"> - Sorting objects Yes/No 	

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Y4		<p>Unit 4.1 Coding (6)</p> <ul style="list-style-type: none"> - Design, code, test, debug - IF statements - Co-ordinates - REPEAT, IF, ELSE - Variables <p>NC: 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>NC: Use sequence, selection and repetition in programs; work with variables and various forms of input and output</p> <p>NC: Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>NC: 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>Unit 4.6 Animation (3)</p> <ul style="list-style-type: none"> - Animation frames - Onion skinning, sounds backgrounds - Stop-motion animation <p>NC: 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>Unit 4.3 Spreadsheets (6)</p> <ul style="list-style-type: none"> - Cell formatting - Timer / Spin buttons - Line graphs - Budgeting - Exploring place value <p>NC: 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>Unit 4.5 Logo (4)</p> <ul style="list-style-type: none"> - Inputting instructions - Creating instructions - REPEAT command - Build procedures <p>NC: 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>NC: Use sequence, selection and repetition in programs; work with variables and various forms of input and output</p> <p>NC: Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p>Unit 4.7 Effective searching (3)</p> <ul style="list-style-type: none"> - Using a search engine - Locating information - Reliable sources <p>NC: 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>NC: Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>Unit 4.2 Online Safety (4)</p> <ul style="list-style-type: none"> - Phishing - Malware - Plagiarism - Healthy screen time <p>NC: 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>NC: Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>Unit 4.8 Hardware Investigators (2)</p> <ul style="list-style-type: none"> - Hardware - Parts of a computer <p>NC: 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>	<ul style="list-style-type: none"> ♣ can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems ♣ can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems ♣ are responsible, competent, confident and creative users of information and communication technology.
Y5	<p style="text-align: center;">Computer Science</p> <p><i>(How computers and computer systems work and how they are designed and programmed)</i></p> <p style="text-align: center;">Information Technology</p>	<p>Unit 5.1 Coding (6)</p> <ul style="list-style-type: none"> - Simplifying code - Program a simulation e.g. traffic lights - Decomposition and abstraction - Friction and functions - Strings - Text variable and concatenation 	<p>Unit 5.2 Online Safety (4)</p> <ul style="list-style-type: none"> - Responsibilities, support and SMART rules - Protecting privacy - Citing sources - Reliability <p>NC: Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities</p>	<p>Unit 5.3 Spreadsheets (6)</p> <ul style="list-style-type: none"> - Formulae in a spreadsheet - Count tool - Formulas for perimeter and area of shape - Text variables - Event planning <p>NC: 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</p>	<p>Unit 5.4 Databases (4)</p> <ul style="list-style-type: none"> - Searching in a database - Enter information - Create database <p>NC: 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>Unit 5.5 Game creator (5)</p> <ul style="list-style-type: none"> - Planning a game - Game environment - Quest (to make game playable) - Instructions - Evaluation <p>NC: Design, write and debug programs that accomplish specific goals, including controlling or simulating physical</p>	<p>Unit 5.6 3D modelling (4)</p> <ul style="list-style-type: none"> - Moving points when designing - Designing for a purpose - Printing and making <p>NC: 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>The national curriculum for computing aims to ensure that all pupils:</p> <ul style="list-style-type: none"> ♣ can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic,

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Y6		<p>Unit 6.1 Coding (6)</p> <ul style="list-style-type: none"> - Designing and making more complex programs - Functions - Flowcharts - User input - Using text-based adventures <p>NC: 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>NC: Use sequence, selection and repetition in programs; work with variables and various forms of input and output</p> <p>NC: Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>NC: 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>Unit 6.2 Online Safety (2)</p> <ul style="list-style-type: none"> - Mobile device broadcasting, secure sites, personal information - Online behaviour - Screen time <p>NC: 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>NC: Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>NC: Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>Unit 6.3 Spreadsheets (5)</p> <ul style="list-style-type: none"> - Exploring probability - Formula for creating discounts / sales - Spreadsheets for planning - Model a real-life situation <p>NC: 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>Unit 6.7 Quizzing (6)</p> <ul style="list-style-type: none"> - Picture-based quizzes - Question types - Grammar - Database 	<p>Unit 6.6 Networks (3)</p> <ul style="list-style-type: none"> - WWW and Internet - School network (LAN WAN) - History if Internet, future, Tim Berners-Lee <p>NC: 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>NC: 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>Unit 6.6 Networks (3)</p> <ul style="list-style-type: none"> - WWW and Internet - School network (LAN WAN) - History if Internet, future, Tim Berners-Lee <p>NC: 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>NC: 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>	
KS3	<p>Aims:</p> <p>The national curriculum for computing aims to ensure that all pupils:</p> <ul style="list-style-type: none"> ♣ can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation ♣ can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems ♣ can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems ♣ are responsible, competent, confident and creative users of information and communication technology 							