



Year 1 Long Term Curriculum Plan for Computing

<p><u>Big Question</u> Can I use the internet safely?</p> <p><u>Area of learning</u> Online safety</p> <p><u>Focus</u> Logging in and using tools safely</p> <p><u>NC Links</u> -use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies.</p>	<p><u>Big Question</u> Can I group and sort information?</p> <p><u>Area of learning</u> Grouping and sorting and pictograms</p> <p><u>Focus</u> Sorting data and recording results</p> <p><u>NC Links</u> -use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<p><u>Big Question</u> Can I follow instructions on a computer?</p> <p><u>Area of learning</u> Following and creating instructions</p> <p><u>Focus</u> Using direction keys and understanding the importance of organising instructions</p> <p><u>NC Links</u> -use logical reasoning to predict the behaviour of simple programs</p>	<p><u>Big Question</u> Can I create an animated story book?</p> <p><u>Area of learning</u> Creating an eBook</p> <p><u>Focus</u> Drawing and creating and using copy and paste</p> <p><u>NC Links</u> -use logical reasoning to predict the behaviour of simple programs. -use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<p><u>Big Question</u> Can I code a simple programme?</p> <p><u>Area of learning</u> Coding</p> <p><u>Focus</u> Reading and understanding coding and exploring commands</p> <p><u>NC Links</u> - understand what algorithms are; how they are implemented as programmes on digital devices; and that programmes execute by following precise and unambiguous instructions. -create and debug simple programs</p>	<p><u>Big Question</u> Can I explain technology outside of school?</p> <p><u>Area of learning</u> Online safety outside of school</p> <p><u>Focus</u> Understanding the term technology and it's uses</p> <p><u>NC Links</u> -recognise common uses of information technology beyond school.</p>
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Year 2 Long Term Curriculum Plan for Computing

<p><u>Big Question</u> Can I code, test and debug?</p> <p><u>Area of learning</u> Computer Science/ Coding</p> <p><u>Focus</u> Design and make an interactive scene</p> <p><u>NC Links</u> -to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions -to create and debug simple programs -to use logical reasoning to predict the behaviour of simple programs</p>	<p><u>Big Question</u> Can I understand how to stay safe online? Can I create charts and graphs on a spreadsheet?</p> <p><u>Area of learning</u> Online Safety Spreadsheets</p> <p><u>Focus</u> -Recognising fact and fiction online -Understanding cyberbullying -Using a range of tools to create charts and graphs automatically</p> <p><u>NC Links</u> -to use technology purposefully to create, organise, store, manipulate and retrieve digital content –to recognise common uses of information technology beyond school -to 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><u>Big Question</u> Can I use a database effectively?</p> <p><u>Area of learning</u> Information Tech</p> <p><u>Focus</u> Navigating databases and Binary Trees</p> <p><u>NC Links:</u> -to use technology purposefully to create, organise, store, manipulate and retrieve digital content –to recognise common uses of information technology beyond school -to 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><u>Big Question</u> Can I use Creating Pictures?</p> <p><u>Area of learning:</u> Information Tech</p> <p><u>Focus:</u> Creating digital illustrations using simple graphic design</p> <p><u>NC Links:</u> -to use technology purposefully to create, organise, store, manipulate and retrieve digital content –to recognise common uses of information technology beyond school</p>	<p><u>Big Question</u> Can I create piece of Music? Can I search the internet effectively?</p> <p><u>Area of learning</u> Information Tech Digital Literacy</p> <p><u>Focus</u> Creating and recording a tune</p> <p><u>NC Links</u> -to use technology purposefully to create, organise, store, manipulate and retrieve digital content –to recognise common uses of information technology beyond school</p>	<p><u>Big Question</u> Can I create a presentation including animation?</p> <p><u>Area of learning:</u> Information Tech</p> <p><u>Focus</u> Making a digital presentation</p> <p><u>NC Links</u> -to use technology purposefully to create, organise, store, manipulate and retrieve digital content –to recognise common uses of information technology beyond school</p>
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Year 3 Long Term Curriculum Plan for Computing

<p><u>Big Question</u> Can I code, test and debug?</p> <p><u>Area of learning:</u> Coding</p> <p><u>Focus</u> Design and make an interactive scene</p> <p><u>NC Links:</u> - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts - use sequence, selection, and repetition in programs; work with variables and various forms of input and output -use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p><u>Big Question</u> Can I understand how to stay safe online? Can I create charts and graphs on a spreadsheet?</p> <p><u>Area of learning</u> Online Safety Spreadsheets</p> <p><u>Focus</u> -Recognising fact and fiction online -Understanding cyberbullying -Using a range of tools to create charts and graphs automatically</p> <p><u>NC Links</u> - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact -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><u>Big Question</u> Can I use both hands when typing?</p> <p><u>Area of learning</u> Touch Typing</p> <p><u>Focus</u> Using both hands to type letters and a keyboard</p> <p><u>NC Links</u> -use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p><u>Big Question</u> Can I read and respond to emails?</p> <p><u>Area of learning</u> Email</p> <p><u>Focus</u> Reading and responding to emails, including adding attachments</p> <p><u>NC Links</u> - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p><u>Big Question</u> Can I create a branching database on the computer? Can I explore simulations?</p> <p><u>Area of learning</u> Branching databases Simulations</p> <p><u>Focus</u> Creating and debugging a branching database Analysing and evaluating simulations</p> <p><u>NC Links</u> - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts - use sequence, selection, and repetition in programs; work with variables and various forms of input and output -use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p><u>Big Question</u> What makes up the parts of a computer? Can I use a graph to solve investigations? Can I create a presentation including animation?</p> <p><u>Area of learning</u> Graphing Presenting</p> <p><u>Focus</u> Presenting results in a range of graphical formats To create and present</p> <p><u>NC Links</u> -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>
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Year 4 Long Term Curriculum Plan for Computing

<p><u>Big Question</u> Can I use coding to create a program?</p> <p><u>Area of learning</u> Coding Online safety</p> <p><u>Focus</u> Create a program</p> <p><u>NC Objectives:</u> -Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts -Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. -Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p><u>Big Question</u> What do we use spreadsheets for?</p> <p><u>Area of learning</u> Spreadsheets</p> <p><u>Focus:</u> Identifying the uses of spreadsheets in day-to-day life</p> <p><u>NC Objectives:</u> -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. -Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p><u>Big Question</u> How can we write to suit the audience using technology?</p> <p><u>Area of learning:</u> Writing for different audiences.</p> <p><u>Focus:</u> Use a computer to type a newspaper report/campaign.</p> <p><u>NC Objectives:</u> -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. - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p><u>Big Question</u> Can I create an object/logo using animation?</p> <p><u>Area of learning:</u> Logo</p> <p><u>Focus:</u> Animate an object using 2Code (Purple Mash)</p> <p><u>NC Objectives:</u> -Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts -Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. -Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	<p><u>Big Question</u> How do we create an animation?</p> <p><u>Area of learning:</u> Animation</p> <p><u>Focus:</u> Animating an object</p> <p><u>NC Objectives:</u> -Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. -Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. -Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p><u>Big Question</u> What makes up the parts of a computer?</p> <p><u>Area of learning:</u> Effective searching Hardware investigators</p> <p><u>Focus:</u> Exploring the functions and parts of a computer</p> <p><u>NC Objectives:</u> -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. -Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p>
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Year 5 Long Term Curriculum Plan for Computing

<p><u>Big Question</u> Can I design and create my own game?</p> <p><u>Area of learning</u> Game Creator</p> <p><u>Focus</u> Design and make an interactive game</p> <p><u>NC Links</u> - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts -use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p>	<p><u>Big Question</u> Can I create a program that responds to a variety of commands?</p> <p><u>Area of learning</u> Coding</p> <p><u>Focus</u> To experience designing, coding, executing and refining a process.</p> <p><u>NC Links</u> - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts -use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs - use sequence, selection, and repetition in programs; work with variables and various forms of input and output - 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><u>Big Question</u> Can I understand my responsibilities when online and where I can go for support?</p> <p><u>Area of learning</u> Online safety</p> <p><u>Focus</u> To know the impact of sharing online and how to keep themselves safe.</p> <p><u>NC Links</u> - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p>	<p><u>Big Question</u> Can I use a spreadsheet?</p> <p><u>Area of learning</u> Spreadsheets</p> <p><u>Focus</u> Creating graphs and tables, as well as inputting data.</p> <p><u>NC Links</u> - 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><u>Big Question</u> Can I create a topic database? Can I explore using word processing using Google Docs?</p> <p><u>Area of learning</u> Databases Word processing</p> <p><u>Focus</u> Creating a topic based database Using a variety of tools specific to Google Docs</p> <p><u>NC Links</u> - use sequence, selection, and repetition in programs; work with variables and various forms of input and output - 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><u>Big Question</u> Can I design a 3D model for a purpose?</p> <p><u>Area of learning</u> 3D Modelling</p> <p><u>Focus</u> Designing and making a 3D model</p> <p><u>NC Links</u> - 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>
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Year 6 Long Term Curriculum Plan for Computing

<p><u>Big Question</u> How can we sequence algorithms to accomplish goals within coding?</p> <p><u>Area of Learning</u> Coding</p> <p><u>Focus</u> 2Code and Free Code Gorilla.</p> <p><u>NC Links</u> -design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; -solve problems by decomposing them into smaller parts. -use sequence, selection, and repetition in programs; work with variables and various forms of input and output. -use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. -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><u>Big Question</u> How can we keep ourselves safe online?</p> <p><u>Area of Learning</u> Online Safety</p> <p><u>Focus</u> Responsible online use</p> <p><u>NC Links</u> -use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; -identify a range of ways to report concerns about content and contact.</p>	<p><u>Big Question</u> What are the useful applications of spreadsheet algorithms?</p> <p><u>Area of Learning</u> Spreadsheets</p> <p><u>Focus</u> Investigating probability and finances</p> <p><u>NC Links</u> -use sequence, selection, and repetition in programs; work with variables and various forms of input and output. -use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. -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><u>Big Question</u> What is a LAN and a WAN?</p> <p><u>Area of Learning</u> Networks</p> <p><u>Focus</u> The future of networks</p> <p><u>NC Links</u> -understand computer networks including the internet; -know how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.</p>	<p><u>Big Question</u> How can we use quizzes purposefully?</p> <p><u>Area of Learning</u> Quizzing Focus: Database quizzes</p> <p><u>NC Links</u> -use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p>	<p><u>Big Question</u> How is data represented within binary?</p> <p><u>Area of Learning</u> Binary</p> <p><u>Focus</u> Data within digital systems</p> <p><u>NC Links</u> -can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.</p>
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