



Computing Long Term Plan

Year R	Autumn	Spring	Summer
Topic	Operating simple equipment	Completes a simple program	Recognise a range of technology and use it for a purpose
	CD player, remote control toys, cameras,	2Paint a Picture – using the basic paint tools I can animate Reading Eggs Bee bots	I can animate – retelling a story Word – writing a story Cameras – Recording Voice recorders – Recording
Early Years Foundation Stage	Understanding the World Technology 30-50 m - Knows how to operate simple equipment, e.g turns on CD player and uses remote control - Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras and mobile phones - Shows skill in making toys work by pressing or lifting lops to achieve effects such as sound, movements or new images. - Knows that information can be retrieved from computers.	Understanding the World Technology 40-60m - Completes a simple program on a computer - Uses ICT hardware to interact with age-appropriate computing software	Understanding the World Technology ELG - Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

Year 1	Autumn	Spring	Summer
Topic	Programming and painting on screen	Painting and animation	Programming robots and collecting and sharing information
	Bee Bots / Hour of Code- Basic programming using directions	2Paint a Picture – using the basic paint tools 2Animate – applying Paint skills to create moving images	Bee Bots - Basic programming using directions 2Investigate - Creating pictograms, graphs and simple tables
National Curriculum links	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Year 2	Autumn	Spring	Summer
Topic	Programming with procedures	Writing and blogging	Chart and present
	Textease Turtle / Hour of Code - Introduce programming with blocks and using procedures	Word – word processing skills. Visit another class' blog and leave a comment	Creating tables and spreadsheets, and generating graphs and charts
National Curriculum links	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school.

KS1	Autumn	Spring	Summer
E Safety	Safe use of ICT equipment Passwords and privacy Reporting concerns and who to tell	Safer Internet Day	Communicating with others online Gaming
National Curriculum links	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.		

Year 3	Autumn	Spring	Summer
Topic	Programming and animation	Office 365 – email and apps	Organising information, animation
	Scratch – changing effects and animation	Email and Office 365 Presentation and Documents	One Drive and One Note – collect and organise mixed media Revelation Natural Art – animated gifs
National Curriculum links	<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>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>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>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>

Year 4	Autumn	Spring	Summer
Topic	2D Game design / Computer networks	Mixing multimedia	Publishing to the public
	Scratch – game design iPad apps and Google Classroom	iMovie and Creative Book Builder – trailers, movies, mixed media ebooks Explain Everything – teaching movies containing text, animation, sound and video for the website	Key notes, webpages and wikis
National Curriculum links	<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>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>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>

Year 5	Autumn	Spring	Summer
Topic	Programming and designing 3D Games	Graphics, art and writing Balancing a budget	Where in the world? Organising information
	Kodu – game design	Comic Life – combining text and graphics SketchIO / Revelation – using layers in paint packages Calculating and applying formulae with a spreadsheet	Understand the differences between Google maps v Google earth and OS maps (Focus on local area map study – geography) Databases and Google Forms – create databases and surveys Search engines – how is the internet organised?
National Curriculum links	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. 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.	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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Year 6	Autumn	Spring	Summer
Topic	Chrome skills/programming with variables	Perfect presentations	Creating Web pages and APPS
	<p>Chromebooks – Chromestore apps</p> <p>Scratch –set up online account plus revision of variables</p>	Prezi v Powerpoint (or Presenter or Slides)	<p>HTML5 – introduction to text based programming</p> <p>APP inventor – designing android apps</p>
National Curriculum links	<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>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>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>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>

KS2	Autumn	Spring	Summer
E Safety	Passwords and privacy Online bullying and digital footprints Netiquette and communicating with others online Reporting concerns	Safer Internet Day	Age appropriate websites/gaming Digital rights and downloading
National Curriculum links	Use technology safely, respectfully and responsibly Recognise acceptable/unacceptable behaviour Identify a range of ways to report concerns about content and contact		