

Subject overview – skills and coverage taught in Computing

Year Group	Skills	Cross Curricular 'Inspire' Topic and Activities
1	<ul style="list-style-type: none"> • 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 • 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>Term 1 - Who Am I? Giving and following instructions using Beebots.</p> <p>Term 3 - Posting and places - Searching the internet safely Copy and paste a map found online. Using Skype to talk.</p> <p>Term 4 - To the Rescue - Make a poster using a template</p> <p>Term 5 - The Potting Shed -Creating a game using Beebots</p>
2	<ul style="list-style-type: none"> • 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 • 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>Term 1 - What do I need to be me? Make a recipe book/menu using Word or Publisher. Safe searching online. Document the development of a butterfly using cameras and Photo story/PowerPoint.</p> <p>Term 2 -Through the Keyhole-using key words to search. Safe searching online..</p> <p>Term 3- Flying High- Use Google maps, measuring paths, research the Wright Brothers, make an online timeline.</p> <p>Term 4- Town Mouse-Country Mouse- Giving and following directional language and using a sequence of instructions to program Beebots.</p> <p>Term 5 - Sowing and Growing-use technology to monitor seed growth (cameras). Make a PowerPoint presentation/Photo story.</p> <p>Term 6 - Trading Places-Britain or Brazil- Research Brazil and make a poster using Word/Publisher Research advertising posters using key words. Make an advertising poster. Search holiday destinations. Safe searching online.</p>

<p>3</p>	<ul style="list-style-type: none"> • 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 • 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • 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>Term 1 - Why Are Humans Animals Too? Use a database to generate bar charts and graphs to answer questions about food</p> <p>Term 2 - Set in Stone- Program a sprite and create a simple caveman game</p> <p>Term 3 - Around the World in 20 days - research a country ready to make a PowerPoint/blog/promotional display about a chosen country.</p> <p>Term 5 - What Did the Romans do for us? Research the Romans to write and answer questions in the role of a Roman. Create a publication about the Romans.</p>
<p>4</p>	<ul style="list-style-type: none"> • 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 • 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 	<p>Term 1 - Where Does my Food Go? Human digestive system animation.</p> <p>Term 2 - Batteries Included-Use Scratch to make an electrical circuit game</p> <p>Term 3 - Sounding off-recording and manipulating sound. Using email responsibly.</p> <p>Term 5 - Amazing Amazon-Create an Amazon themed game in Scratch.</p> <p>Term 6 - It's A Small World-safely searching online for images and managing folders.</p>

	<p>collaboration</p> <ul style="list-style-type: none"> • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • 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 	
5	<ul style="list-style-type: none"> • 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 • 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • 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 	<p>Term 1 - To the Stars-program a Sprite to interact with another using Scratch.</p> <p>Term 2 - To The Greeks-understanding about the reliability of websites. Take photos and manipulate their images. Create a leaflet about the Greeks and import their own images</p> <p>Term 3 & 4 - Fever, Fire and Fashion-create a news bulletin/video report about the Great Fire of London.</p> <p>Term 5 & 6 - Rites and Rituals-research the Mayans and present using PowerPoint.</p> <p>Term 6 - The World is Our Oyster-Use Google Earth to compare 2 locations Use a blog including uploading images and video and understand about responsible blogging</p>

	report concerns about content and contact	
6	<ul style="list-style-type: none"> • 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 • 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • 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>Term 1 - Who is taking control? Create a robot maze game using Scratch</p> <p>Term 2 - What's happening now? Effective searching-Tsunami. Film a news report combining actual footage. Safe use of Youtube.</p> <p>Term 2 - A voyage of discover- research Charles Darwin and present findings PowerPoint/leaflet)</p> <p>Term 3 - Who's the Mummy-create a game using Scratch</p> <p>Term 6 - You're hired – Design and create packaging for a product using publishing software</p>