

Computing – Year 5 - Long Term Plan

	National Curriculum Coverage	Assessment
Autumn	<p>use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <ul style="list-style-type: none"> • Potential online dangers and safety design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • The meaning and purpose of programming <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <ul style="list-style-type: none"> • Storyboarding ideas, taking photographs and editing to create a video animation 	<p><u>Online Safety</u></p> <ul style="list-style-type: none"> • Understanding that passwords need to be strong and that apps do require some form of passwords • Knowing what bullying is and that it can occur both online and in the real world. • Recognising when health and wellbeing are being affected in either a positive or negative way through online use. Offering a couple of advice tips to combat the negative effects of online use. <p><u>Micro:bit</u></p> <ul style="list-style-type: none"> • Confidence to clip blocks together and predict what will happen. Making connections with previous programming interfaces they've used, e.g. Scratch. • Recognising blocks they've used previously, identifying inputs and outputs used and making predictions about how variables work. <p><u>Stop Motion Animation</u></p> <ul style="list-style-type: none"> • Creating a short stop motion with small changes between images. • Making small changes to the models to ensure a smooth animation and deleting unnecessary frames. • Have a clear animation with added effects such as extending parts and the use of a title. They will also be able to provide helpful feedback to other groups about their animations.
Spring	<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> <ul style="list-style-type: none"> • Data transfer and binary code 	<p><u>Mars Rover 1</u></p> <ul style="list-style-type: none"> • Reading any number in binary, up to eight bits. • Reading binary numbers and grasping the concept of binary addition.

<p>Summer</p>	<p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <ul style="list-style-type: none"> • Research skills and finding accurate information <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> <ul style="list-style-type: none"> • 3D design skills 	<p><u>Search Engines</u></p> <ul style="list-style-type: none"> • Suggesting that things online aren't always true and recognising what to check for. • Making parallels between book searching and internet searching, explaining the role of web crawlers and recognising that results are rated to decide rank. <p><u>Mars Rover 2</u></p> <ul style="list-style-type: none"> • Creating a pixel picture, explaining that a pixel is the smallest element of a digital image and that binary is used to code and transfer this data. • Explaining the 'fetch, decode, execute' cycle in relation to real-world situations. • Independently taking tutorial lessons, applying what they have learnt to their design and understanding the importance of using an online community responsibly.
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