

Computing – Year 2 - Long Term Plan

	National Curriculum Coverage	Assessment
Autumn	<p>understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions</p> <ul style="list-style-type: none"> When picturing a computer, thoughts are often of a screen, mouse and keyboard. This unit explores exactly what a computer is by identifying and learning how inputs and outputs work, how computers are used in the wider world and designing their own computerised invention This combination of unplugged and plugged-in activities develop an understanding of; what algorithms are, how to program them and how they can be developed to be more efficient, introduction of loops <p>create and debug simple programs</p> <ul style="list-style-type: none"> Explore what 'blocks' do, using the app 'ScratchJr,' by carrying out an informative cycle of predict > test > review, programme a familiar story and an animation of an animal, make their own musical instrument by creating buttons and recording sounds and follow an algorithm to record a joke 	<p><u>What is a computer?</u></p> <ul style="list-style-type: none"> Confidently naming the peripherals: screen, keyboard and mouse and understanding the function of each of the parts. They should also be able to spot peripherals on different types of computers. Recognising computers in the world around them and explaining the role of each computer. <p><u>Algorithms and Debugging</u></p> <ul style="list-style-type: none"> Writing a creative algorithm planned for the dinosaur game and explaining what decomposition means. Understanding what debugging is and identifying incorrect steps within an algorithm <p><u>ScratchJr</u></p> <ul style="list-style-type: none"> Recognising which blocks matched to the statements in the algorithm. Using the 'cut and paste' paper algorithm when creating the program rather than just muddling through off the top of their head using trial and error.
Spring	<p>use logical reasoning to predict the behaviour of simple programs</p> <ul style="list-style-type: none"> Explore what 'blocks' do, using the app 'ScratchJr,' by carrying out an informative cycle of predict > test > review, programme a familiar story and 	<p><u>ScratchJr</u></p> <ul style="list-style-type: none"> Recognising which blocks matched to the statements in the algorithm. Using the 'cut and paste' paper algorithm when creating the program rather than just muddling through off the top of their head using trial and error.

	<p>an animation of an animal, make their own musical instrument by creating buttons and recording sounds and follow an algorithm to record a joke</p> <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <ul style="list-style-type: none"> • Learn about word processing and how to stay safe online as well developing touch typing skills. Introduce important keyboard shortcuts, as well as simple editing tools within a word processor including: bold, italics, underline and font colour as well as how to import images • Storyboarding and simple animation creation using either tablet devices or devices with cameras 	<p><u>Word Processing</u></p> <ul style="list-style-type: none"> • Typing and making simple alterations to text using buttons on a word processor. • Understanding how to use copy and paste to copy text from one document to another; using different text styles and editing tools and crediting source materials.
Summer	<p>recognise common uses of information technology beyond school</p> <ul style="list-style-type: none"> • The International Space Station (ISS) is a fascinating real-world setting for teaching about how data is collected, used and displayed as well as the scientific learning of the conditions needed for plants and animals, including humans, to survive <p>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> <ul style="list-style-type: none"> • Learning about online safety, including: what happens to information posted online; how to keep things private online; who we should ask before sharing online; 	<p><u>International Space Station</u></p> <ul style="list-style-type: none"> • Navigating the digital map and describing and explaining at least one way in which astronauts' survival needs are met aboard the ISS. • Able to explain why water is essential to life and to identify which planets have a temperature range that might sustain life. <p><u>Online Safety</u></p> <ul style="list-style-type: none"> • Can explain why we need passwords and the need for a strong password. They know what information is private and how we can begin to make things private online. • Understanding that they have a right to say no/deny their permission and know who they can ask for help. • Understanding that not everything they see online is true and can explain some strategies to help them work out if information is reliable or not.

	describing different ways to ask for, give, or deny permission online	
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