

Computing – Year 1 - 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> <p>create and debug simple programs</p> <ul style="list-style-type: none"> Developing early programming skills using either the Bee:Bot or virtual Bee:Bot. 	<p><u>Getting Started</u></p> <p><u>Programming</u></p> <ul style="list-style-type: none"> explaining what happened when they pressed given buttons. Explaining why the children think the buttons that they pressed were the right ones, recognising cause and effect. Programming the Bee-Bot to reach the goal as specified in the story. Identifying and correcting mistakes when they go wrong.
Spring	<p>use logical reasoning to predict the behaviour of simple programs</p> <ul style="list-style-type: none"> This unplugged unit requires no computers so that algorithms, decomposition and debugging are made relatable to familiar contexts, such as dressing up and making a sandwich, while learning why instructions need to be very specific <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <ul style="list-style-type: none"> Learning how to login and navigate around a computer, developing mouse skills, learning how to drag, drop, click and control a cursor to create works of art inspired by Kandinsky and self-portraits Developing keyboard and mouse skills through designing, building and testing individual rockets by creating a digital list of materials, using drawing software and recording data Using creativity and imagination to plan a miniature adventure story and capture it 	<p><u>Algorithms Unplugged</u></p> <ul style="list-style-type: none"> Writing clear algorithms, considering the different steps required and explaining what an algorithm is. An algorithm is a clear set of instructions to carry out a task. ... is. Creating a clear, achievable program for their virtual assistant and explaining what inputs and outputs are. Identifying bugs and fixing algorithms. <ul style="list-style-type: none"> Creating a piece of artwork that demonstrates clear control of the mouse, using dragging and clicking to create different effects. Pupils are able to explain how to log in and log out of the local computer network. Logging and out of computers unaided, creating a self-portrait that includes the key features of a face and using at least two different paint tools. <p><u>Rocket to the moon</u></p> <ul style="list-style-type: none"> Putting a set of instructions in the correct order and understanding why this is important. Inputting data into a table or spreadsheet and measuring distances accurately. <p><u>Digital Imagery</u></p>

	<p>using developing photography skills. Learn to enhance photos using a range of editing tools as well as searching for and adding other images to a project, resulting in a high-quality photo collage showcase</p>	<ul style="list-style-type: none"> • Explaining what is happening in a photo story. Planning three distinct parts of a photo story. • Acknowledging that images can be changed after being taken. Suggesting changes that can be made to photos. • Recognising that a collage means several photos on a page. Adding both images and text. Resizing and dragging images around the page.
<p>Summer</p>	<p>recognise common uses of information technology beyond school</p> <ul style="list-style-type: none"> • Learn what data is and the different ways that it can be represented and developing an understanding of why data is useful, how it can be used and ways in which it can be gathered and recorded both by humans and computers <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 using useful tips to stay safe when online; how to manage feelings and emotions when someone or something has upset us online; learning about the responsibility we have as online users; exploring the idea of a 'digital footprint' 	<p><u>Introduction to Data</u></p> <ul style="list-style-type: none"> • Representing data in different ways and using this to answer questions. • Designing a computerised invention to gather data; explaining how it works. <p><u>Online Safety</u></p> <ul style="list-style-type: none"> • Being able to discuss what the internet is and what you can do online. • The children's ability to recognise how internet use can upset others. • The children's ability to identify which information is appropriate to share and post online and which information is not.