

Computing – Year 6 - 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"> Learning how to navigate the internet in an informed, safe and respectful way <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> <ul style="list-style-type: none"> Using the programming language of Python <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"> WWII and the first computers 	<p><u>Online Safety</u></p> <ul style="list-style-type: none"> Explaining how sharing online can have both positive and negative impacts. Being aware of how to seek consent from others before sharing material online and can describe how content can still be shared online even if it is set to private. Pupils will be able to describe ways to manage passwords and strategies to add extra security such as two factor authentication. Pupils can also explain what to do if passwords are shared, lost, or stolen. <p><u>Intro to Python</u></p> <ul style="list-style-type: none"> Iterating ideas, testing and changing throughout the lesson and explaining what their program does. Using nested loops in their designs, explaining why they need two repeats. Recognising that computers can choose random numbers; decomposing the program into an algorithm and modifying a program to personalise it. <p><u>Bletchley Park 2</u></p> <ul style="list-style-type: none"> Producing a simple radio play with some special effects and simple edits which demonstrates an understanding of how to use the software
Spring	<p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <ul style="list-style-type: none"> Barcodes, QR codes and RFID <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the</p>	<p><u>Big Data 1</u></p> <ul style="list-style-type: none"> Using nested loops in their designs, explaining why they need two repeats. Recognising that computers can choose random numbers; decomposing the program into an algorithm and modifying a program to personalise it. <p><u>Big Data 2</u></p>

	<p>opportunities they offer for communication and collaboration</p> <ul style="list-style-type: none"> • Data usage and smart schools 	<ul style="list-style-type: none"> • Recognising that data can become corrupted within a network and that data sent in packets is more robust, as well as identifying the need to update devices and software.
Summer	<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"> • Designing and promoting a new product 	<p><u>Skills Showcased</u></p> <ul style="list-style-type: none"> • Evaluating code, understanding what it does and using adapt existing to code for a specific purpose. • designing appropriate housing for their product using CAD software, including any input or output devices needed to make it work.