

Year 1 1st half term	Espresso block coding Unit 1a	<ul style="list-style-type: none"> ➤ To code 	<ul style="list-style-type: none"> • Understand what an algorithm is • Move skills to drag and drop • Write and test simple programmes • Predict behaviour of simple programmes 	We are TV chefs	<ul style="list-style-type: none"> ➤ To communicate ➤ To collect ➤ To connect ➤ To code 	<ul style="list-style-type: none"> • Investigate recipes and TV cookery programmes • Programme a sandwich making robot • Film a recipe video on iPads • Edit and review video • Upload to iMovie 	We are rhythmic	<ul style="list-style-type: none"> ➤ To communicate ➤ To collect ➤ To code 	<ul style="list-style-type: none"> • Record audio on an i-Pad • Programme ScratchJr to create repeating patterns • Explore different effects that can be applied to audio. • Experiment with a range of virtual instruments
2nd half term	We are treasure hunters	<ul style="list-style-type: none"> ➤ To code ➤ To collect 	<ul style="list-style-type: none"> • Record a simple algorithm • Begin to programme beebots • Create a debug simple programs. • Debug algorithms 	We are digital artists	<ul style="list-style-type: none"> ➤ To connect ➤ To communicate ➤ To collect 	<ul style="list-style-type: none"> • Design own illustrations on paper • Create and store illustrations using 2simple • Retrieve and manipulate illustration • Add texts to illustrations to design an e-book 	We are detectives	<ul style="list-style-type: none"> ➤ To collect ➤ To communicate 	<ul style="list-style-type: none"> • Organise data into groups and subgroups • Organise data into a table • Present data in different formats.
Year 2 1st half term	Espresso block coding- start, 2a	<ul style="list-style-type: none"> ➤ To code 	<ul style="list-style-type: none"> • Understand what an algorithm is • Build blocks to create a simple algorithm • Write and test simple programs • Predict behaviour using simple programmes • Begin to debug simple algorithms 	We are game testers	<ul style="list-style-type: none"> ➤ To code ➤ To connect 	<ul style="list-style-type: none"> • Understand what an algorithm is • Begin to programme an algorithm using scratch • Predict simple programme behaviour <p>Use technology safely</p>	We are animators	<ul style="list-style-type: none"> ➤ To communicate 	<ul style="list-style-type: none"> • Understand how animation works • Storyboard to plan animation • Create characters, props and backgrounds • Record audio to accompany animation
2nd half term	We are astronauts	<ul style="list-style-type: none"> ➤ To code 	<ul style="list-style-type: none"> • Understand what algorithms are • Use beebots to familiarise with algorithms and inputs • Use Scratch to create sprites and backgrounds 	We are photographers	<ul style="list-style-type: none"> ➤ To connect ➤ To communicate 	<ul style="list-style-type: none"> • Consider technical and artistic merits of photographs • Review, reject and pick images • Edit and enhance photographs 	We are zoologists	<ul style="list-style-type: none"> ➤ To communicate ➤ To collect 	<ul style="list-style-type: none"> • Record information as a tally • Write data in excel • Produce bar chart/graphs • Discover google maps

			<ul style="list-style-type: none"> • Creating multiple images • Simple algorithms to control movement 						
Year 3 1st half term	Espresso coding	➤ To code	<ul style="list-style-type: none"> • Design and write for specific goals • Use sequence, selection, and repetition in programs • Work with variables and various forms of input and output • Generate appropriate inputs and predicted outputs to test programs • Use logical reasoning to explain simple algorithms, detect and correct errors • 	We are bug fixers	➤ To code	<ul style="list-style-type: none"> • Develop a number of strategies for finding errors in programs • Build up resilience and strategies for problem solving • Increase their knowledge and understanding of Scratch • Recognise a number of common types of bug in software. 	We are co-authors	<ul style="list-style-type: none"> ➤ To collect ➤ To communicate ➤ To connect 	<ul style="list-style-type: none"> • Practise research skills • Write for a target audience • Develop collaborating and proofreading skills • Be aware of their responsibilities when editing other people's work
2nd half term	We are programmers	➤ To code	<ul style="list-style-type: none"> • Plan and create an algorithm for an animated scene. • Write a program in Scratch to create characters, dialogue, costumes, backdrops and sound. • Review and correct mistakes 	We are presenters	<ul style="list-style-type: none"> ➤ To connect ➤ To collect ➤ To communicate 	<ul style="list-style-type: none"> • Review sport and camera shots • Record videos using iPads • Edit videos using iMovie • Improve videos • Evaluate videos 	We are opinion pollsters	<ul style="list-style-type: none"> ➤ To communicate ➤ To collect ➤ To connect 	<ul style="list-style-type: none"> • Understand some elements of survey • Design, carry out and assess survey • Use online data collection • Produce charts to analyse data • Interpret results.

Year 4 1st half term	Espresso coding- HTML Unit 1: Introduction to HTML	<ul style="list-style-type: none"> ➤ To code ➤ To communicate ➤ To collect ➤ To connect 	<ul style="list-style-type: none"> • Understand different elements of a URL • Understand terms HTML • Add headings and subheadings to a web page. • Add Images to a webpage. • Add text to a webpage. • Debug a system. 	<p style="text-align: center;">We are makers</p>	<ul style="list-style-type: none"> ➤ To code ➤ To communicate 	<ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals. • Use sequence, selection and repetition in programs. • Test and debug programs using micro:bit. 	<p style="text-align: center;">We are artists</p>	<ul style="list-style-type: none"> ➤ To code ➤ To communicate 	<ul style="list-style-type: none"> • Use cloning tools and repeating tools to create tessellating designs • Use scratch to code a short algorithm that will create repeating patterns • Refine and develop work using Inkscape • Evaluate it and receive feedback from their peers • Develop awareness of computer-generated art
2nd half term	We are software developers	<ul style="list-style-type: none"> ➤ To code ➤ To communicate ➤ To connect 	<ul style="list-style-type: none"> • Use Excel to use reporter operations to solve calculations • Develop a game using selection and repetition • Use methods to debug • Use a range of input and output of computer games 	<p style="text-align: center;">We are musicians</p>	<ul style="list-style-type: none"> ➤ To connect ➤ To communicate ➤ To collect 	<ul style="list-style-type: none"> • Use sequence software to arrange sound clips • Record samples • Use Isle of Tune and Garage Band to edit music • Create and develop a musical composition • Refine ideas through reflection and discussion 	<p style="text-align: center;">We are meteorologists</p>	<ul style="list-style-type: none"> ➤ To collect ➤ To communicate ➤ To connect ➤ To code 	<ul style="list-style-type: none"> • Use data collected from weather station to understand and interpret data • Input data into excel • Create graphs • Create report and discuss • Use a green screen to report on the weather.

<p>Year 5 1st half term</p>	<p>Espresso Coding- HTML Unit 3: HTML Links</p>	<ul style="list-style-type: none"> ➤ To code ➤ To communicate ➤ To connect ➤ To collect 	<ul style="list-style-type: none"> • Create links using HTML • Create links from pictures to websites • Create links from separate website page using divs • Create multiple divs with multiple links inside • Edit text, colour, background of website page • Debug a system 	<p>We are cryptographers</p>	<ul style="list-style-type: none"> ➤ To communicate ➤ To connect ➤ To code 	<ul style="list-style-type: none"> • Transmit information in semaphore • Use simple circuits to send and receive Morse code • Make connections between the internet and semaphore and Morse code • Research and use a mono-alphabetic cipher and a Caesar cipher • Identify importance of unique passwords and develop own 	<p>We are adventure gamers</p>	<ul style="list-style-type: none"> ➤ To communicate ➤ To connect ➤ To code 	<ul style="list-style-type: none"> • Plan non-linear presentations • Add and edit images in a presentation • Use hyperlinks for navigation • Record and add audio narration to a presentation • Use commenting tools to give feedback on a presentation
<p>2nd half term</p>	<p>We are game developers</p>	<ul style="list-style-type: none"> ➤ To code ➤ To connect ➤ To communicate ➤ To collect 	<ul style="list-style-type: none"> • Create a storyboard for an original game • Create backgrounds and sprites on Scratch • Begin to use code to bring the game to life • Detect errors and debug the code 	<p>We are architects</p>	<ul style="list-style-type: none"> ➤ To code ➤ To communicate 	<ul style="list-style-type: none"> • Understand the work of architects, designers and engineers. • Develop familiarity with a simple CAD (computer-aided design) tool. • Develop spatial awareness by exploring and experimenting with 3-D virtual environment 	<p>We are VR designers</p>	<ul style="list-style-type: none"> ➤ To communicate ➤ To connect ➤ To code ➤ To collect 	<ul style="list-style-type: none"> • Explore real-world and imagined locations in VR. • Create 360 degrees photosphere images • Link physical objects to digital content using QR codes • Create their own VR scene • Program objects and interactions in VR.

Year 6 1 st half term	Espresso Python Unit 2- Python Graphics	<ul style="list-style-type: none"> ➤ To code 	<ul style="list-style-type: none"> • Introduce movements with Python graphics • Use codes for shapes and colour • Use codes for backgrounds, lines, shapes and graphics • Debug systems <p>Use https://repl.it/ and/ or Thonny to input codes used and develop skills</p>	We are computational thinkers	<ul style="list-style-type: none"> ➤ To connect ➤ To communicate 	<ul style="list-style-type: none"> • Reason logically about algorithms • Understand that some algorithms are more efficient than others. • Use algorithms for searching and sorting a list. 	We are AI developers	<ul style="list-style-type: none"> ➤ To communicate ➤ To collect 	<ul style="list-style-type: none"> • Use decision trees to classify data • Consider ethical principles when designing AI systems • Learn how speech recognition works
2 nd half term	We are toy makers	<ul style="list-style-type: none"> ➤ To code ➤ To connect 	<ul style="list-style-type: none"> • How computers use stored programs to connect input to output. • Work with the physical components of a system • Design and write a program for an embedded system • Plan a complex project by decomposing it into smaller parts. 	We are advertisers	<ul style="list-style-type: none"> ➤ To communicate ➤ To collect 	<ul style="list-style-type: none"> • Identify and research features of successful adverts • Plan storyboard for collaborative advert • Shoot video footage using iPads • Assemble footage and edit using iMovie • Export a completed TV advert 	We are publishers	<ul style="list-style-type: none"> ➤ To connect ➤ To communicate ➤ To collect 	<ul style="list-style-type: none"> • Research and source content • Develop word processing skills • Combine text and images from a range of sources together • Contribute to a class leavers' book