

## Computing Long Term Plan

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
EYFS	Computing is threaded throughout the curriculum. Children will gain experience using a number of resources e.g. floor robots, creating text on screen, operate simple equipment, use a safe part of the internet to play and learn, discuss basic internet safety, use tablets etc.					
	Barefoot Computing Units to use include – Boats Ahoy, Busy Bodies and Seasons					
Year 1	Creating Media – Digital Painting  <i>Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.</i>	Computer Systems and Networks – Technology Around Us  <i>Recognising technology in school and using it responsibly</i>	Programming A – Moving a Robot  <i>Writing short algorithms and programs for floor robots, and predicting program outcomes.</i>	Data and Information – Grouping Data  <i>Exploring object labels, then using them to sort and group objects by properties.</i>	Creating Media – Digital Writing  <i>Using a computer to create and format text, before comparing to writing non-digitally.</i>	Programming B – Programming Animations  <i>Designing and programming the movement of a character on screen to tell stories.</i>
Year 2	Computer Systems and Networks – IT Around Us  <i>Identifying IT and how its responsible use improves our world in school and beyond.</i>	Creating Media – Digital Photography  <i>Capturing and changing digital photographs for different purposes.</i>	Programming A – Robot Algorithms  <i>Creating and debugging programs, and using logical reasoning to make predictions.</i>	Data and Information – Pictograms  <i>Collecting data in tally charts and using attributes to organise and present data on a computer.</i>	Creating Media – Digital Music  <i>Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</i>	Programming B – Programming Quizzes  <i>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz</i>
Year 3	Computer Systems and Networks – Connecting Computers  <i>Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</i>	Creating Media – Stop-frame Animation  <i>Capturing and editing digital still images to produce a stop-frame animation that tells a story.</i>	Programming A – Sequencing Sounds  <i>Creating sequences in a block-based programming language to make music.</i>	Data and Information – Branching Databases  <i>Building and using branching databases to group objects using yes/no questions.</i>	Creating Media – Desktop Publishing  <i>Creating documents by modifying text, images, and page layouts for a specified purpose.</i>	Programming B – Events and Actions in Programs  <i>Writing algorithms and programs that use a range of events to trigger sequences of actions.</i>
Year 4	Computer Systems and Networks – The Internet  <i>Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</i>	Creating Media – Audio Production  <i>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</i>	Programming A – Repetition in Shapes  <i>Using a text-based programming language to explore count-controlled loops when drawing shapes.</i>	Data and Information – Data Logging  <i>Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</i>	Creating Media – Photo Editing  <i>Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</i>	Programming B – Repetition in Games  <i>Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</i>

Year 5	Computer Systems and Networks – Systems and Searching  <i>Recognising IT systems around us and how they allow us to search the internet.</i>	Creating Media – Video Production  <i>Planning, capturing, and editing video to produce a short film.</i>	Programming A – Selection in Physical Computing  <i>Exploring conditions and selection using a programmable microcontroller.</i>	Data and Information – Flat-file Databases  <i>Using a database to order data and create charts to answer questions.</i>	Creating Media – Introduction to Vector Graphics  <i>Creating images in a drawing program by using layers and groups of objects.</i>	Programming B – Selection in Quizzes  <i>Exploring selection in programming to design and code an interactive quiz.</i>
Year 6	Computer Systems and Networks – Communication and Collaboration  <i>Identifying and exploring how data is transferred and information is shared online.</i>	Creating Media – Web Page Creation  <i>Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.</i>	Programming A – Variables in Games  <i>Exploring variables when designing and coding a game.</i>	Data and Information – Spreadsheets  <i>Answering questions by using spreadsheets to organise and calculate data.</i>	Creating Media – 3D Modelling  <i>Planning, developing, and evaluating 3D computer models of physical objects.</i>	Programming B – Sensing Movement  <i>Designing and coding a project that captures inputs from a physical device.</i>