



# Computing Long Term Plan **Information Technology** **Digital Literacy** **Computer Science**

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Rec	Taking a photo on the iPad linked to topic PC games linked to learning across the curriculum Listening corner Battery operated toys (till, vehicles) Playing interactive games on Interactive White Board		Taking a photo on the iPad linked to topic Using a mouse with increased control Listening corner Bee Bots Playing interactive games on the Interactive White Board Voice recording buttons		Use the camera on an iPad to distort an image (APP) Take videos on the iPad Use a mouse with increased control. Listening corner Bee Bots Typing first name on keyboard Playing interactive games on the Interactive White Board	
Year 1	<b>Technology Around Us</b> Recognising technology in school and using it responsibly	<b>Digital painting</b> Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally	<b>Moving a robot</b> Writing short algorithms and programs for floor robots, and predicting program outcomes.	<b>Grouping data</b> Exploring object labels, then using them to sort and group objects by properties	<b>Digital writing</b> Using a computer to create and format text, before comparing to writing non-digitally	<b>Programming animations</b> Designing and programming the movement of a character on screen to tell stories.
Year 2	<b>Information technology around us</b> Identifying IT and how its responsible use improves our world in school and beyond.	<b>Digital photography</b> Capturing and changing digital photographs for different purposes	<b>Robot algorithms</b> Creating and debugging programs, and using logical reasoning to make predictions.	<b>Pictograms</b> Collecting data in tally charts and using attributes to organise and present data on a computer.	<b>Making music</b> Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	<b>Programming quizzes</b> Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz
Year 3	<b>Virtual Learning Environment</b> Using the VLE to learn about internet communication technologies	<b>Presenting words and pictures</b> Using advanced features of WORD and PowerPoint to create rich media	<b>Sequential Programming</b> Introduction to Scratch and creating algorithms using a sequence of commands	<b>Searching</b> Searching for information about a topic using key words. Reliable and unreliable information and online Safety	<b>Animation</b> Creating animation characters, stop frame animations and programming animations	<b>Pattern Making</b> Writing algorithms to create repeating patterns and reacting to mouse movement
Year 4	<b>Internet Technologies</b> Communicating to a wider audience on the VLE. Self-directed learning and Google maps	<b>Multi-media</b> Graphically rich documents and presentations for a specific audience	<b>Programming</b> Following a set of instructions, testing and debugging. Introduction to variables	<b>Internet Technologies</b> How the internet works, global communication, finding facts and how to keep personal information safe online	<b>Spreadsheets</b> Creating spreadsheets with formulae and producing graphics from the information	<b>Programming</b> Creating programs using the concepts of Selection and Repetition
Year 5	<b>Search</b> How search engines work and rank results. Efficient searches for specific types of information	<b>Graphics/Hyperlinks</b> Text boxes as graphics in Word. Hyperlinks in PowerPoint to tell a story	<b>Programming</b> Creating a program based on mathematical rules. Using broadcasting to communicate between sprites	<b>Internet Conduct</b> Email for collaboration, researching a topic, how to behave safely on the internet – conduct, contact, content, commerce	<b>IT for Purpose</b> Rules of graphic design, photo montage, databases	<b>Design and Programming</b> Design and programming to a given level of detail. Planning, developing and testing a game.
Year 6	<b>Analyse and Collaborate</b> Analysing search results to get the best answer. Collaborating on a research project for a debate	<b>Mixed Media</b> Using a number of templates and apps to create a document such as Word, Paint and PowerPoint	<b>Decomposition</b> Music and data lists in Scratch. Decomposing an existing program and re-writing it to a higher standard	<b>Computer Systems</b> Identifying components of computer systems and how they work together. Research keywords. E-safety and social media	<b>Graphics</b> Using tools to create and alter graphics	<b>Web Development</b> Creating web pages using HTML, XML and JavaScript