



Computing Overview Including Hardware and Software

	Computing Systems and networks	Creating Media	Programming A	Data and Information	Creating Media	Programming B
Year 1	1.1 Technology around us Recognising technology in school and using it responsibly. <i>Desktop- paint</i>	1.2 Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally <i>Desktop - paint</i>	1.3 Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes. <i>Bee-Bots</i>	1.4 Grouping data Exploring object labels, then using them to sort and group objects by properties. <i>Desktop – Microsoft PowerPoint</i>	1.5 Digital writing Using a computer to create and format text, before comparing to writing non-digitally <i>Desktop – Microsoft Word</i>	1.6 Programming animations Designing and programming the movement of a character on screen to tell stories. <i>iPads – Scratch Jr</i>
Year 2	2.1 Information technology around us Identifying IT and how its responsible use improves our world in school and beyond. <i>Desktop – Microsoft PowerPoint</i>	*2.3 Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions. <i>Bee-Bots</i>	*2.2 Digital photography Capturing and changing digital photographs for different purposes. <i>Ipads and Desktop – Pixlr (website)</i>	2.4 Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer. <i>Desktop – j2e.com Pictogram (website)</i>	2.5 Making music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition <i>Desktop – Chrome Music Lab (website)</i>	2.6 Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz. <i>iPads – Scratch Jr</i>
Year 3	3.1 Connecting computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. <i>Desktop – Paint</i>	3.2 Stop-frame animation Capturing and editing digital still images to produce a stop-frame animation that tells a story. <i>iPads – iMotion app</i>	3.3 Sequencing sounds Creating sequences in a block-based programming language to make music. <i>Desktop – Scratch offline version</i>	3.4 Branching Databases Building and using branching databases to group objects using yes/no questions. <i>Desktop – j2e.com Branch (website)</i>	3.5 Desktop publishing Creating documents by modifying text, images, and page layouts for a specified purpose <i>Desktop - Publisher</i>	3.6 Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions <i>Desktop - Scratch</i>

<p>Year 4</p>	<p>4.1 The internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. <i>Desktop/iPads – Various websites</i></p>	<p>4.2 Audio production Capturing and editing audio to produce a podcast, ensuring that copyright is considered. <i>Desktop – BandLab (website) LOGINS REQUIRED</i></p>	<p>3.6 Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions <i>Desktop - Scratch</i></p>	<p>4.4 Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation. <i>Desktop – Data Logger and software</i></p>	<p>4.5 Photo editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled. <i>Desktop – Paint.NET (desktop app)</i></p>	<p>4.3 Repetition in shapes Using a text-based programming language to explore count-controlled loops when drawing shapes. <i>Desktop – FMS Logo (desktop app)</i></p>
<p>Year 5</p>	<p>5.1 Systems and Searching Recognising IT systems around us and how they allow us to search the internet. <i>Desktop - PowerPoint</i></p>	<p>5.2 Video production Planning, capturing, and editing video to produce a short film. <i>iPads/Desktop – Windows Video Editor</i></p>	<p>4.6 Repetition in games Using a block-based programming language to explore count-controlled and infinite loops when creating a game. <i>Desktop - Scratch</i></p>	<p>5.4 Flat-file databases Using a database to order data and create charts to answer questions. <i>Desktop – j2e.com Database (website)</i></p>	<p>5.5 Vector drawing Creating images in a drawing program by using layers and groups of objects. <i>Desktop – Google Drawing (accessible through Chrome)</i></p>	<p>5.6 Selection in quizzes Exploring selection in programming to design and code an interactive quiz. <i>Desktop - Scratch</i></p>
<p>Year 6</p>	<p>6.1 Communication and collaboration Identifying and exploring how data is transferred and information is shared online. <i>Desktop – PowerPoint</i></p>	<p>6.2 Webpage creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation. <i>Google Sites</i></p>	<p>*5.3 Selection in physical computing Exploring conditions and selection using a programmable microcontroller. <i>Desktop – Crumble Kit Loaned from College</i></p>	<p>6.4 Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data. <i>Desktop – Microsoft Excel</i></p>	<p>6.5 3D modelling Planning, developing, and evaluating 3D computer models of physical objects. <i>Desktop – Tinkercad (desktop website) LOGINS REQUIRED</i></p>	<p>*6.3 Variables in games Exploring variables when designing and coding a game. <i>Desktop - Scratch</i></p>