

**Subject Pathway – Computing – Cycle B**

Cycle A	EYFS		Year 1 & 2		Year 3 & 4		Year 5 & 6	
Autumn 1	<p><b>Out and about</b> Desktop Computer Use Aim: Children become familiar with using hardware Aim: Children use a variety of software to produce different outcomes e.g. building an image from blocks on the screen Google Maps Aim: Children use software and the internet for a purpose – to gain an understanding of the local area</p>	Click Press Mouse Screen Internet	<p><b>Man on the Moon</b> <b>E Safety</b> <b>Resources</b> <b>Programming BeeBots</b> use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Aim: Children programme a series of instructions for purpose e.g. forward, left, forward, turn 90° to avoid objects on the map.</p>	Turn Instruction Sequence Order Half Turn Quarter Turn	<p><b>Our Wonderful World</b> E-Safety use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	Software Hardware Internet Service Page Link Report	<p><b>Space</b> E-Safety Non-Chronological Report Design and Publish using Keynote Application 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 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	Software Hardware Rank Database Layer
Autumn 2	<p><b>Toy Story</b> Remote controlled toys Aim – to know that buttons ‘do’ things. To understand cause and effect Bee Bots – Coding Basics – Simple instructions (Forward, back, left, right)</p>	Remote Button Click Press Go Forward Back Left Right Instruction	<p><b>The workshop</b> <b>Design</b> use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Aim – use the research to support English or topic writing safely Children use ipads to insert and save images to design a birthday invitation</p>	Organise Store Manipulate Digital content Technology Save	<p><b>The Tudors</b> Research and Keynote  Learn how to conduct safe and efficient research online and understand how results are ranked.  Produce a keynote presentation to present to the class on an aspect of Tudor life.  Consider the use of design and transitions. <b>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</b> use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	Rank Results Source Discern Content Slide Transition Title Import Export	<p><b>WW2</b> Artefact mind map diagram – using search engines  Data representation of WWII data  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  use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	Rank Database Results Device Source Associated Affiliate Discern Content
Spring 1	<p><b>Paws and claws</b></p>		<p><b>Dangerous Dinosaurs</b> Handling Data – showing their favourite dinosaur Using number or keynote, input data onto a table or chart</p>	Chart Data Table Input	<p><b>Africa</b> Use Apple Maps mapping software to locate key locations and landmarks in Africa.  Record distances from Nottingham in a spreadsheet.  Organise the information using a blank keynote slide <b>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</b></p>	Map Layer Satellite Label Flag Co-ordinate	<p><b>Storms &amp; Shipwrecks</b> Use Follo App to produce ‘under the sea’ animations  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>	Cell Animate Onion-Skin
Spring 2	<p><b>Spring watch</b> Photography Aim – to use software for a purpose</p>	Press Click Photo Take Save Zoom Camera Lens Screen	<p><b>Woodland Creatures</b> Multi-media – Using research skills taught in Autumn 2 – children find and save images of woodland creatures and produce a slideshow with selected images</p>	Image Photo Slideshow Save	<p><b>Virtual Reality</b> Coding – Espresso  Create AR objects and place them into the real world – Tayasui Blocks App <b>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</b></p>	Selection Repetition Programme Code Command Input Output Algorithms	<p><b>Greeks</b> Coding  Safe Research Project  design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts  use sequence, selection, and repetition in programs; work with variables and various forms of input and output  use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>	Debug Sequence Selection Repetition Programme Variables Input Output Algorithms
Summer 1	<p><b>If you go down to the woods today</b> Talking Tins Aim: Children use hardware for purpose - to record well known stories</p>	Record Listen Press Click Sound	<p><b>Roald Dahl</b> Multimedia – design a label for a chocolate bar - Keynote to produce packaging</p>	Design Font Colour Packaging Wrapper Appealing	<p><b>Community Café</b> Graph and Chart Creation  Children should show data relating to the sale of products at the community café. This could include a pie chart of the most popular products or the sale of items throughout the day – showing the busiest times.  Poster Publishing Photograph items to be sold at the café, edit the images for brightness/contrast and import into design software to produce a poster. <b>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</b></p>	Graph Chart Data Cell Grid Column Row Input Table	<p><b>Mystic East</b> Keynote Presentations on China or Japan with Narration  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  use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	Audio Record Track Edit Trim Apply Overdub Content File Import Export
Summer 2	<p><b>Walk the Plank</b></p>				<p><b>The Romans</b> Produce a short movie about Roman Life – iMovie Children should be taught to import video, edit clip length, add a title and export the finished movie. <b>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</b></p>	Import Export Edit Trim Timeline Audio Title		

**Subject Pathway – Computing – Cycle A**

Cycle B	EYFS		Year 1 & 2		Year 3 & 4		Year 5 & 6	
Autumn 1	<p><b>Express Yourself</b> iPad Drawing Aim: Children use hardware and software to create a digital image of themselves</p>	Screen App Image Digital Computer	<p><b>Fire of London</b> <b>Recording our news reports</b> use technology purposefully to create, organise, store, manipulate and retrieve digital content Aim: To produce a video recording of their news reports using the Clips app – adding effects and titles</p>	App Titles Music Effects Record Button	<p><b>Incredible Inventions</b> E-Safety</p> <p>Coding – Espresso</p> <p>Children should learn what computer networks are and how they work as well as the origins of the internet. Children should learn about the creator of the internet, Tim Burners-Lee. use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p>	Selection Repetition Programme Code Command Input Output Algorithms Network Internet Telecommunications Communicate Collaborate Link Load Data	<p><b>Planet Earth</b> E-Safety</p> <p>Photo Editing and Slideshow Creation</p> <p>Presenting Climate Change Data using Charts and Graphs</p> <p>use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <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>	Rank Database Results Device Source Associated Affiliate Discern Content
Autumn 2	<p><b>Whizz, Bang, Colour</b></p>		<p><b>The Workshop</b> <b>E Safety &amp; coding</b> understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions create and debug simple programs use logical reasoning to predict the behaviour of simple programs – Espresso Coding</p>	Debug Code Algorithm Instructions Debug Programme	<p><b>Rock n’ Roll</b></p> <p>Keynote slides with recorded voiceover added to explain how fossils are formed</p> <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>	Slide Import Record Export Hardware Software	<p><b>Victorians</b> Video Essay of Basford/Nottingham During the Victorian Times</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <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>	Audio Record Track Edit Trim Apply Overdub Content File Import Export
Spring 1	<p><b>Passport to the world</b> Internet Browsing – What is the internet? Aim: For children to understand that the internet is a tool for finding information</p>	Internet Website Page Link Information	<p><b>Caribbean</b> use technology purposefully to create, organise, store, manipulate and retrieve digital content Aim: Locate the country using digital maps and annotate some key features by adding labels</p>	Map Search Postcode Add Edit Import Screenshot	<p><b>Extreme Earth</b> Music Creation Children should use music software, such as garage band, to soundtrack a movie scene showing an extreme weather event happening e.g. the tornado scene in Wizard of Oz. 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>	Import Export Record Retrieve Load Layer Content	<p><b>Bodies</b> New Healthy Snack Product Packaging and Advertising Materials using Logo Software and Keynote</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <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>	Layer Transparent Export Import Crop Picker Toolbar Select Edit Rotate
Spring 2	<p><b>Favourite Stories</b> Talking Tins Aim: Children use hardware for purpose - to record well known stories</p>	Record Listen Press Click Sound	<p><b>Where we live</b> use technology purposefully to create, organise, store, manipulate and retrieve digital content Aim: to take photographs of the local area and add them to a simple presentation (keynote) and add titles and transitions</p>	Add Edit Import Title Transition	<p><b>Tomb Raiders</b> AR – BBC Expeditions App – Artefacts</p> <p>Children can use AR to view ancient Egyptian artefacts</p> <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>	View Load Import Software	<p><b>Vikings</b> Film Project – Using a given script of a Norse Myth, Storyboard, shoot and edit a short film, including the use of green screen</p> <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>	Timeline Import Export Framerate Edit Overdub Crop
Summer 1	<p><b>Let’s Play</b></p>		<p><b>Inside Out</b> use technology purposefully to create, organise, store, manipulate and retrieve digital content Aim: Produce a photo guide for the instructions on plant care using photographs and text Handling Data – Plotting the growth of a plant over a period of time onto a line graph and choosing background images and titles Aim: to show the growth of a plant digitally</p>	Guide Photo Image Text Graph Line Graph Data Plot Key	<p><b>Nottingham</b> Research, Photo Editing -Create information slides with clickable links and edited photographs using keynote 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>	Rank Results Source Discern Content Crop Edit Add Import Export	<p><b>Mexico &amp; South America</b> App Creation – Use Keynotes ‘Slide Link’ feature to mock-up a simple map app which opens up images and information when you click on various parts of a map</p> <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> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p>	Programme Link Control Execute Input Design Send
Summer 2	<p><b>Down at the bottom of the garden</b> Microscope Minibeasts Aim – to know that computer software and hardware can be used for a variety of purposes</p>	Image Picture Screen Microscope Plug						