

Helmdon Primary School – Computing Curriculum map 2023-24

Key

Computer Science - **Programming**

Information Technology - **Creating Media**

Computer Science - **Computer Systems and Networks**

Information Technology - **Data and Information**

Hardware & software used

* Digital Literacy – Online Safety, using the Education for a Connected World curriculum

Woven throughout the discrete Computing units and covered using Project Evolve in PSHE & assemblies

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Reception	<p>Awesome Autumn</p> <p><i>Exploring patterns in Garlands Galore, creating a leaf labyrinth and making Pumpkin Soup using computational thinking skills</i></p>	<p>Winter Warmers</p> <p><i>Snowmen scarves and patterns, creating igloos and bird feeders</i></p>	<p>Busy Bodies</p> <p><i>Exploring and learning about parts of the body, growth and movement. Creating and adapting simple algorithms to form a routine of movements.</i></p>	<p>Springtime</p> <p><i>Making a rabbit run, creating junk scarecrows and exploring sequencing whilst planting seeds.</i></p>	<p>Boats Ahoy</p> <p><i>Investigating boats; floating and sinking predictions, creating a good boat through exploring designs and role-play.</i></p>	<p>Summer Fun</p> <p><i>Exploring their surroundings, taking a journey and making a map, and discovering seaside tangrams,</i></p>
Year 1	<p>Technology around us*</p> <p><i>Recognising technology in school and using it responsibly</i></p> <p><i>Laptops – for skills Paintz.app or Seesaw</i></p>	<p>Digital painting</p> <p><i>Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally</i></p> <p><i>Paintz.app or Seesaw</i></p>	<p>Moving a robot</p> <p><i>Writing short algorithms and programs for floor robots, and predicting program outcomes.</i></p> <p><i>Beebots</i></p>	<p>Grouping data*</p> <p><i>Exploring object labels, then using them to sort and group objects by properties.</i></p> <p><i>MS Powerpoint - mouse skills</i></p>	<p>Digital writing*</p> <p><i>Using a computer to create and format text, before comparing to writing non-digitally</i></p> <p><i>MS Word (not Seesaw)</i></p>	<p>Programming animations</p> <p><i>Designing and programming the movement of a character on screen to tell stories.</i></p> <p><i>Scratch Jr app</i></p>
Year 2	<p>IT around us*</p> <p><i>Identifying IT and how its responsible use improves our world in school and beyond.</i></p> <p><i>MS Powerpoint for sorting</i></p>	<p>Digital photography*</p> <p><i>Capturing and changing digital photographs for different purposes.</i></p> <p><i>Digital cameras & Seesaw pixlr.com/x/</i></p>	<p>Robot algorithms</p> <p><i>Creating and debugging programs, and using logical reasoning to make predictions.</i></p> <p><i>Beebots</i></p>	<p>Pictograms</p> <p><i>Collecting data in tally charts and using attributes to organise and present data on a computer.</i></p> <p><i>J2data Pictogram</i></p>	<p>Digital music*</p> <p><i>Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</i></p> <p><i>Chrome Music Lab (online)</i></p>	<p>Programming quizzes</p> <p><i>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz</i></p> <p><i>Scratch Jr app</i></p>

Year 3	Connecting Computers <i>Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</i> <i>iPads</i> <i>Paintz.app or Seesaw</i>	Stop frame animation* <i>Capturing and editing digital still images to produce a stop-frame animation that tells a story.</i> <i>iPads</i> <i>iMotion</i>	Sequencing sounds <i>Creating sequences in a block-based programming language to make music.</i> <i>Laptops or iPads</i> <i>Scratch (online)</i>	Branching databases <i>Building and using branching databases to group objects using yes/no questions.</i> <i>Laptops or iPads</i> <i>J2data Branch & Pictogram</i>	Desktop publishing* <i>Creating documents by modifying text, images, and page layouts for a specified purpose.</i> <i>Laptops</i> <i>MS Publisher</i>	Events and actions <i>Writing algorithms and programs that use a range of events to trigger sequences of actions.</i> <i>Laptops or iPads</i> <i>Scratch (online)</i>
Year 4	The Internet* <i>Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</i> <i>Laptops or iPads</i> <i>Chrome Music Lab (online)</i>	Audio production* <i>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</i> <i>Laptops</i> <i>Audacity</i>	Repetition in shapes <i>Using a text-based programming language to explore count-controlled loops when drawing shapes.</i> <i>Laptops</i> <i>FMS Logo</i>	Data logging <i>Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</i> <i>iPads & Arduino app</i> <i>or Log-Box data logger</i>	Photo editing* <i>Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</i> <i>Laptops</i> <i>Paint.NET</i>	Repetition in games <i>Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</i> <i>Laptops or iPads</i> <i>Scratch (online)</i>
Year 5/6	Online Safety <i>Learning tailored to cohort's specific needs, using Project Evolve's knowledge map</i> <i>Laptops or iPads</i>	Code Breakers <i>The history of computing and how computers were used as code-cracking devices in World War II.</i> <i>iMovie</i>	Radio Station <i>Using sound recording software to record jingles, adverts and interviews</i> <i>Laptops</i> <i>Audacity</i>	Data handling <i>Using the Micro:Bit as a temperature recorder, an automatic warning system and a digital assistant</i> <i>iPads & Micro:Bits</i>	Stop frame animation <i>Cut-out animation using a positionable camera; adding a voice-over to narrate the story-telling</i> <i>Hue animation cameras & animation studio software</i>	Kodu programming <i>Edit variables when coding a game in a 3D scene editor</i> <i>Laptops</i> <i>Kodu Game Lab</i>