

Holymead Primary School Computing Curriculum Overview

<u>Declarative Knowledge – Knowing That</u>				<u>Procedural Knowledge – Knowing How</u>			
Computer Science		Information Technology		Digital Literacy			
Using technology	Programming	Computing Systems and Networks	Data and Information	Creating Media	E-safety		
<i>To become skilful in using different tools to control technology.</i>	<i>To begin to understand how a computer processes instructions and commands.</i>	<i>To use and understand the internet.</i>	<i>To create and refine original content using digital tools across a range of media.</i>	<i>To understand ICT allows easy creation, manipulation and change.</i>	<i>To equip children with the skills needed to keep safe online.</i>		
<i>E-safety to be a continuous thread throughout Computing and PSHC topics with a dedicated E-safety lesson each term. There should also be continuous conversations about E-safety outside of Computing lessons.</i>							
	<u>RECEPTION (YR)</u>	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>	<u>YEAR 4</u>	<u>YEAR 5</u>	<u>YEAR 6</u>
Term 1/2	Taught throughout the year in line with EYFS curriculum. 1) Understanding the world: Role play areas with technology 2) Literacy: Bee-Bots Story	1)Using technology: Keyboard and mouse skills 2)Computing systems and networks: Technology All Around Us (NCCE planning – 1.1)	1)Using technology: Keyboard and mouse skills. User names and logging on (Numbots and Google Classroom) 2) Computing systems and networks: IT Around us (NCCE planning – 2.1)	1) Using technology / Computing systems and networks: Google Classroom and The Internet – (NCCE planning - 4.1) 1)Programming: Scratch (NCCE planning – 3.3)	1)Using technology: Google Classroom (docs) and typing skills 2)Creating Media: Audio Editing: Garage Band (NCCE planning – 4.2)	1)Using technology: Google Classroom (docs and slides) 1)Programming: Scratch (NCCE planning – 4.6)	1)Computing systems and networks: Communication and Collaboration (NCCE planning – 6.1) 2)Creating Media: Webpage creating (NCCE planning – 6.2)
Term 3/4	3) Physical Development: Mouse and keyboard skills 4) Personal, Social and Emotion Development: E-safety	1)Creating Media: Digital painting (NCCE planning – 1.2) (Art link) 2)Programming: Bee-Bots (NCCE planning - 1.3) physical device (Geography link)	1)Programming: Beebots (NCCE planning – 2.3) physical device 2)Creating Media: Making Music (NCCE planning – 2.5)	1)Creating Media: Stop-frame animation (NCCE planning – 3.2)	1)Programming: Sphero physical device	1)Creating Media: Video editing (NCCE planning – 5.2)	1)Programming: Scratch (NCCE planning 6.3)

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Term 5/6		1)Programming: Scratch Jr (NCCE planning – 1.6)	1)Programming: Scratch Jr (NCCE planning – 2.6)	1)Data and Information: Branching Databases (NCCE planning – 3.4) (Maths link) 2)Programming: Tinkercad (DT Link)	1)Data and Information: Data Logging (NCCE planning – 4.4) (Science link) 2)Programming: Scratch (NCCE planning – 4.3)	1)Data and Information: Google Sheets 2)Programming: Scratch (NCCE planning 5.6)	1)Programming: Micro: bit (Year 6 unit) (NCCE planning 6.6) physical device
<u>Trips and Events</u>							
						We The Curious – Science link	
<u>Extracurricular Activates</u>							
	Internet Safety Day	Internet Safety Day	Internet Safety Day	Internet Safety Day	Internet Safety Day	Internet Safety Day Computer Room @ lunchtime (Wednesdays)	Internet Safety Day Computer Room @ lunchtime (Wednesdays)

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Computing Curriculum Overview

Computing Vocabulary Overview

	<u>Using Technology</u>	<u>Computing Systems and Networks</u>	<u>Creating Media</u>	<u>Programming A</u>	<u>Programming B</u>	<u>Data and Information</u>
Year 1	Keyboard and Mouse skills: <i>technology, desktop, computer, tablet, keyboard, mouse</i>	Technology Around Us: <i>technology, computer, mouse, trackpad, login, username, password, edit, spacebar</i>	Digital Painting: <i>paint tools, fill, brush, shape, line, undo, save, retrieve/open</i>	Moving A Robot: <i>robot, direction, command, sequence, predict, program, run</i>	Programming Animations: <i>sprite, programming, start block, algorithm, value, area, block</i>	
Year 2	Keyboard and Mouse skills and logging on: <i>technology, desktop, computer, tablet, keyboard, mouse, keys, enter</i>	IT Around Us: <i>information, technology, device, examples of IT (printer, card reader, pin machine)</i>	Digital Music: <i>rhythm, pattern, pitch, musical, sequence of notes</i>	Robot Algorithms: <i>outcome, algorithm, execute, run, code</i>	Programming Quizzes: <i>green flag, background, modify, debug</i>	
Year 3	Google Classroom: <i>Google Classroom, Chrome, username, password, logging on, stream, classroom, assignment, comment, quiz</i>	The Internet: <i>internet, router, World Wide Web, online content, reliable</i>	Stop Frame Animation: <i>animation, frame, stop-frame, story board, sequence, onion skinning</i>	Sequencing Sounds: <i>Scratch, backdrop, code, motion block, event block, motion, stage</i>	Tinker cad: <i>3D design, electronics, coding, modelling, programming</i>	Branching Data Bases: <i>tree structure, branching, data, collecting, results</i>
Year 4	Google Classroom: <i>Google Classroom, Chrome, username, password, Google Doc, submit, turn in</i>		Audio Production: <i>input device, output device, microphone, copyright, recording, trim, audio file</i>	Sphero: <i>programming, code, control, build, debug, test</i>	Repetition in Shapes: <i>logo, code snippet, repeat, loop, decompose, decomposition, procedures</i>	Data Logging: <i>data logger, data set, data collection, sensors, data file, logged data</i>
Year 5	Google Classroom: <i>Google Doc, Google Slide, submit, turn in, format</i>		Video Production: <i>visual media, store, retrieve, export, reshoot</i>	Repetition in Games: <i>count-controlled, loop, snippet, infinite, event block, code blocks</i>	Selection in Quizzes: <i>conditions, if...then...else, structure, program flow, branching, setup code</i>	Introduction to Databases: <i>excel, spreadsheet, cell, data, format, sorting, grouping, formula</i>
Year 6	Google Classroom: <i>Google Drive, Google Doc, Google Slide, submit, turn in, format</i>	Communication and Collaboration: <i>web address, IP address, domain, data, header, copyright, communication, security, privacy</i>	Web Page Creation: <i>HTML, layout, copyright, fair-use, hyperlink, user experience</i>	Variables in Games: <i>variable, program variable, value</i>	Sensing Movement: <i>Micro:bit, input, process, output device, emulator, control, selection, accelerometer, operand</i>	