



# Ordsall Primary School Progression Map for Computing



		<u>Nursery</u>	<u>Reception</u>	<u>Year 1 and Year 2</u>		<u>Year 3 and Year 4</u>		<u>Year 5 and Year 6</u>	
Key National Curriculum Theme	Online Safety: Key Skills	<ul style="list-style-type: none"> <li>I follow SMART rules.</li> <li>I can use teacher prepared games on the interactive whiteboard</li> <li>I can use teacher prepared games on handheld devices</li> </ul>	<ul style="list-style-type: none"> <li>I follow the SMART rules.</li> <li>I use the internet for learning, making choices given options</li> <li>With support, I can use a password to access my Microsoft Office 365 account</li> </ul>	<ul style="list-style-type: none"> <li>I follow the SMART rules.</li> <li>I use the search engines agreed by the school through my individual pupil Microsoft Office 365 account</li> <li>I know <b>what to do</b> if I find something inappropriate online or something I am unsure of</li> <li>I know <b>who to tell</b> if I find something inappropriate online or something I am unsure of</li> <li>I use the internet for learning and communicating with others</li> <li>I can make choices when navigating through sites by selecting an appropriate image</li> <li>I understand how to send and receive a class email</li> <li>I recognise advertising on websites and learn to ignore it</li> <li>I can use a username and password independently to access my Microsoft Office 365 account</li> <li>I can use my username and password to access my Numbots account or TT Rock-stars account</li> </ul>		<ul style="list-style-type: none"> <li>I follow the SMART rules</li> <li>I recognise the difference between the work of others which has been copied and re-structuring and re-presenting materials in ways which are unique and new</li> <li>I identify when emails should not be opened and when an attachment may not be safe</li> <li>I explain and demonstrate how to use emails safely</li> <li>I can use my username and password to access my Microsoft Office 365 account independently</li> <li>I can use my username and password to access my Numbots or TT Rock-stars account independently</li> <li>I use different search engines via my Microsoft Office 365 account</li> </ul>		<ul style="list-style-type: none"> <li>I follow the SMART rules</li> <li>I make safe choices about the use of technology</li> <li>I use technology in ways which minimises risk</li> <li>I can understand how to create a strong password and manage it so that it remains strong</li> <li>I independently, and with regard for e-safety, select and use appropriate communication tools to solve problems by collaborating and communicating with others within and beyond school</li> <li>I competently use the internet as a search tool</li> <li>I reference information sources</li> <li>I use appropriate strategies for finding, critically evaluating, validating and verifying information</li> <li>I use knowledge of the meaning of different domain names and common websites extensions to support validation of information</li> <li>I can use my username and password to access my Numbots or TT Rock-stars account independently</li> </ul>	
	Key Skills Vocabulary	Rules Internet	Choices Website Password	Rules Online Search engine Keyword search Private information Communication Advert	Appropriate Inappropriate Digital footprint E-mail	E-safety rules Personal information Alias Secure passwords E-mail attachment Report abuse button Gaming Search engine Persuasion Cyber-bullying	Restructure Re-present Manipulation Fact/Fiction Plagiarism Blog Bias Cross-check Copyright Fake News	Responsible Online communication Strong password Risk Messaging Communicate Evaluate Pop-up Scam Phishing Website extension Consent	Informed choices Malicious Virus threats Communication tools Collaborate Reference Copyright Validate Verify Domain name Security settings Nickname

All staff to use SID (Safer Internet Day) to incorporate these objectives. Direct links to RSHE objectives.



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Key National Curriculum Theme	Online Safety: knowledge and Understanding	<ul style="list-style-type: none"> <li>I can follow rules, for using devices safely, understanding why they are important</li> </ul>	<ul style="list-style-type: none"> <li>I can explain the reasons for rules, know right from wrong</li> <li>I can use programs and software on devices safely</li> </ul>	<ul style="list-style-type: none"> <li>I understand the different methods of communication including talking books, photographs, videos and e-mails</li> <li>I know you should only open email from a known source</li> <li>I know the difference between email and communication systems such as blogs and wikis</li> <li>I know that websites sometimes include pop-ups that take me away from the main site</li> <li>I know that bookmarking is a way to find safe sites again quickly</li> <li>I have begun to evaluate websites and know that everything on the internet is not true</li> <li>I know that it is not always possible to copy some text and pictures from the internet</li> <li>I know that personal information should not be shared online</li> <li>I know that I must tell a trusted adult immediately if anyone tries to meet me via the internet</li> </ul>	<ul style="list-style-type: none"> <li>I understand the need for rules to keep me safe when exchanging learning and ideas online</li> <li>I recognise that information on the internet may not be accurate or reliable and may be used for bias, manipulation or persuasion</li> <li>I understand that the internet contains fact, fiction and opinion and begin to distinguish between them</li> <li>I use strategies to verify information including cross-checking</li> <li>I understand the need for caution when using an internet search for images and what to do if I find an unsuitable image</li> <li>I understand that copyright exists on most digital images, video and recorded music</li> <li>I understand the need to keep personal information and passwords private</li> <li>I understand that if I make personal information available online it may be seen and used by others</li> <li>I know how to respond if asked for personal information or feel unsafe about content of a message</li> <li>I recognise that cyberbullying is unacceptable and will be sanctioned in line with the school's policy</li> <li>I know how to report an incident of cyber bullying</li> <li>I know the difference between online communication tools used in school and those used at home</li> <li>I understand the need to develop an alias for some public online use</li> <li>I understand that the outcome of internet searches at home may be different than at school</li> </ul>	<ul style="list-style-type: none"> <li>I discuss the positive and negative impact of the use of ICT in my own life, my friends and family</li> <li>I understand the potential risk of providing personal information online</li> <li>I recognise why people may publish content that is not accurate and understand the need to be critical evaluators of content.</li> <li>I understand that some websites and/or pop-ups have commercial interest that may affect the way the information is presented.</li> <li>I recognise the potential risk of using internet communication tools and understand how to minimise those risks, including scams and phishing</li> <li>I understand that some material on the internet is copyrighted and may not be copied or downloaded</li> <li>I understand that some messages may be malicious and know how to deal with this</li> <li>I understand that online environments have security settings, which can be altered, to protect the user including firewalls and filtering systems</li> <li>I understand the benefits of developing a 'nickname' for online use</li> <li>I understand that some malicious adults may use various techniques to make contact and elicit personal information</li> <li>I know that it is unsafe to arrange to meet unknown people online</li> <li>I know how to report any suspicions</li> <li>I understand I should not publish other people's pictures or tag them on the internet without permission</li> <li>I know that content put online is extremely difficult to remove</li> <li>I know what to do if I discover something malicious or inappropriate</li> </ul>



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Key National Curriculum Theme	Computer Science	<ul style="list-style-type: none"> <li>I can use equipment with buttons.</li> <li>I can use equipment with sliders.</li> <li>I can use equipment with switches.</li> <li>I can tinker with some devices.</li> </ul>	<ul style="list-style-type: none"> <li>I can tinker with a range of devices.</li> <li>I can show resilience and perseverance in the face of a challenge when carrying out a process in a logical order</li> <li>I can explore, use and refine a variety of artistic effects to express my ideas and feelings.</li> <li>I can demonstrate motor coordination</li> <li>I can safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul>	<ul style="list-style-type: none"> <li>I can create a series of instructions for making a sandwich.</li> <li>I can create a simple series of instructions of a blue-bot.</li> <li>I can write a simple plan for a programmable blue-bot.</li> <li>I can use my plan to program a simple journey for a blue-bot.</li> <li>I can create a simple series of instructions on Scratch Jr and in the blu-bot app on an i-pad</li> </ul>	<ul style="list-style-type: none"> <li>I can use vocabulary including direction, angles and turns when programming a simple algorithm using Scratch and other programs including Minecraft and the blue-bot app</li> <li>I can test a set of instructions using Scratch, Minecraft and blue-bot app.</li> <li>I can find errors of a set of instructions on Scratch, Minecraft and blue-bot app</li> <li>I can verbally predict the outcome of a set of instructions on Scratch, Minecraft and the blue-bot app.</li> <li>I understand that algorithms are used when programming electronic devices including washing machines, televisions and phones.</li> <li>I can make a sprite move on Scratch as part of an algorithm.</li> <li>I can add a backdrop on Scratch as part of an algorithm.</li> <li>I can use the looks blocks on Scratch as part of an algorithm.</li> </ul>	<ul style="list-style-type: none"> <li>I can design a sequence of events in a simple algorithm within different programs including Scratch, Minecraft and code.org</li> <li>I can design a sequence of events in a simple algorithm for the task of an interactive story.</li> <li>I can program a sequence of events in a simple algorithm.</li> <li>I can program a sequence of events in a simple algorithm for the task of an interactive story.</li> <li>I can recognise the input on devices including computers, printers, phones.</li> <li>I can recognise the output on devices including printers, speakers, headphones.</li> <li>I can use forever loops in Scratch.</li> <li>I can use the broadcasting blocks in Scratch.</li> </ul>	<ul style="list-style-type: none"> <li>I use simple variables to program a sprite within programs including Scratch, Minecraft and code.org.</li> <li>I use simple variables to program a micro bit using the Microsoft make code program.</li> <li>I can use co-ordinate points to move a sprite on Scratch.</li> <li>I can predict the outcome of an algorithm within different programs including Scratch and code.org.</li> <li>I can explain why an algorithm may/may not meet it's intended outcome within different programs.</li> <li>I can begin to debug a simple algorithm.</li> <li>I can use sensing blocks.</li> <li>I understand the purpose of HTML to complete projects using Raspberry Pi projects</li> </ul>	<ul style="list-style-type: none"> <li>I can combine sequences of instructions and procedures to turn devices on and off using lego and/or crumble kits</li> <li>I can use technology to control an external device including a micro-bit and a robot</li> <li>I can design algorithms that use repetition in programs including Scratch, Minecraft and code.org.</li> <li>I can use two-way selection in programs including Scratch and code.org.</li> <li>I can design a simple game on Scratch and code.org following a visual tutorial.</li> </ul>	<ul style="list-style-type: none"> <li>I can design a solution by identifying a bug in an algorithm in different programs.</li> <li>I can apply my solution to a previously identified bug in an algorithm in different programs.</li> <li>I recognise that there are different solutions of an error in different programs</li> <li>I can pick an efficient algorithm of fixing a bug in different programs.</li> <li>I can use a range of blocks including variables, operators and the extension tools in different programs.</li> <li>I can explore 'what if' questions by planning different scenarios for controlled devices in a range of programs.</li> </ul>



Play, Learn and Grow Together!

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Play, Learn and Grow Together!

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<b>Computer Science Vocabulary</b>	Equipment Buttons Movement Colour Use	Resilience Perseverance Safely Explore Design Texture Function	Instructions Journey Buttons Robots Patterns Program Programmable Series Forwards Backwards Left Right 90 degree turn	Direction Forward Backward Right-angle turn Instruction Algorithm Sequence Debug Predict Digital device	Algorithm Sequence Debug Test Improve Instructions Commands Programming Input Output Sprite Costume Script Broadcast	Variable Control Predict Edit Commands Repetition Sensors Debug If/touching	Explore Refine Combine Variable Hardware Software Inputs Outputs Procedure External Repetition 2-way selection	Solution Logical reasoning Detect Selection Variables Algorithm Review Controlled devices Sensors 'What if' Scenario



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Key National Curriculum Theme	Information Technology	<ul style="list-style-type: none"> <li>I can match my developing physical skills to tasks and activities in the setting.</li> </ul>	<ul style="list-style-type: none"> <li>I can use small motor skills to use a range of tools competently, safely and confidently.</li> <li>I can use artistic and construction materials to carry out a task.</li> </ul>	<ul style="list-style-type: none"> <li>I can create digital content using a camera on an i-pad</li> <li>I can store digital content on a laptop and i-pad</li> <li>I can retrieve digital content from an i-pad or on a laptop including use of teams in Microsoft office 365</li> <li>I can use a website to search for and copy and paste images into Microsoft Word</li> <li>I can use the camera on an iPad to take photographs of a series of simple instructions.</li> <li>I can use an i-pad and a blue-bot to record sound and play back</li> <li>I can use video on an iPad to record a series of simple instructions</li> </ul>	<ul style="list-style-type: none"> <li>I can organise digital content on a laptop.</li> <li>I can retrieve and manipulate digital content in teams on Microsoft office 365</li> <li>I can navigate the web to find images.</li> <li>I can navigate the web to complete simple searches</li> <li>I can use different search engines.</li> </ul>	<ul style="list-style-type: none"> <li>I can use a range of software for similar purposes in Microsoft Office 365.</li> <li>I can collect information using tally charts.</li> <li>I can design and create content using Power-point and Microsoft Excel.</li> <li>I can present information using a spreadsheet to create graphs.</li> <li>I can search for information on the web in different ways.</li> <li>I can manipulate and improve digital images taken on an i-pad using the editing tools.</li> </ul>	<ul style="list-style-type: none"> <li>I can select and use Garage Band on an i-pad to create a piece of music.</li> <li>I can present information using Sway in Microsoft Office 365.</li> <li>I can collect and present data using spreadsheets in Microsoft Excel.</li> <li>I can produce a podcast using voice recorder on i-pads</li> <li>I can understand the process involved in uploading a podcast.</li> </ul>	<ul style="list-style-type: none"> <li>I understand how search results are selected and ranked on a search engine.</li> <li>I can edit a film using stop motion animation.</li> <li>I can use hyperlinks to link slides on Microsoft Power-point</li> <li>I can use hyperlinks to link photographs on Microsoft Power-point</li> <li>I can use tinker-cad to create a 3D digital design (AR)</li> </ul>	<ul style="list-style-type: none"> <li>I can select, use and combine software (including Scratch, Microsoft Power-point and a paint programme) to create an APP</li> <li>I can use laptops and i-pads to plan a project linked to a created APP.</li> </ul>
		Information Technology Vocabulary	Screen Mouse Keyboard	Images Collect Count Organise	Digital content Record Video Camera Sounds Photographs Website Data Create Store Retrieve	Documents Enter/return Caps lock Data collection Graphs Charts Animation Save Organise Retrieve Manipulate Navigate	Multimedia Justify (alignment) Repeat Database Spreadsheet Construct Record (data) Present (information or data) Data logger Digital image Improve	Create Modify Purpose Keyboard shortcuts Bullet points Spell check Database creation Database searches Inaccurate data Podcast Upload Download	Online sharing Multimedia effects Multimedia modification Transitions Hyperlinks Edit Spreadsheets Complex searches (and/or: </>) Problem solving Present answers Analyse information Question data Interpreting tools



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Key National Curriculum Theme	Digital Literacy: Word	<ul style="list-style-type: none"> <li>I can use the right click button on the mouse or mousepad.</li> <li>I can use the left click button on the mouse or mousepad.</li> </ul>	<ul style="list-style-type: none"> <li>With support I can type my name on a laptop</li> <li>With support I can type my password on a laptop</li> <li>I can identify a chosen letter on a keyboard</li> <li>I can identify a chosen number on a keyboard</li> </ul>	<ul style="list-style-type: none"> <li>I can type my username on a laptop accurately</li> <li>I can type my password on a laptop accurately</li> <li>I can use the space bar on a laptop</li> <li>I can locate and use the full stop key on a laptop</li> <li>I can use the caps lock button</li> </ul>	<ul style="list-style-type: none"> <li>I can type sentences confidently using caps and lock and the full stop key</li> <li>I can confidently use the backspace key when correcting errors.</li> <li>I can use the shift key</li> <li>I can highlight a word using a mouse or mousepad</li> <li>I can use the enter key to start a new line</li> </ul>	<ul style="list-style-type: none"> <li>I can highlight and underline a word using a mouse and a mousepad.</li> <li>I can highlight and bold a word using a mouse and a mousepad.</li> <li>I can highlight and change the font using a mouse and a mousepad.</li> <li>I can highlight and change the size using a mouse and a mousepad.</li> <li>I can centre a piece of text</li> </ul>	<ul style="list-style-type: none"> <li>I can highlight and change the colour of text</li> <li>I can insert bullet points on Microsoft Word</li> <li>I can insert a text box using Microsoft Word</li> <li>I can insert Word-art using Microsoft Word</li> <li>I can change the page orientation</li> <li>I can justify text using Microsoft Word</li> </ul>	<ul style="list-style-type: none"> <li>I can draw a table on Microsoft Word</li> <li>I can draw a range of shapes on Microsoft Word</li> <li>I can sort text in alphabetical or numerical order</li> <li>I can include a hyperlink for a website in Microsoft Word</li> </ul>	<ul style="list-style-type: none"> <li>I can insert a chart into Microsoft Word</li> <li>I can use the find tool in Microsoft Word</li> <li>I can use the replace tool in Microsoft Word</li> <li>I can include a header in Microsoft Word</li> <li>I can include a footer in Microsoft Word</li> <li>I can include a page number in Microsoft Word</li> </ul>



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Key National Curriculum Theme	Digital Literacy: Power-point	<ul style="list-style-type: none"> <li>I can create simple digital content – digital art</li> </ul>	<ul style="list-style-type: none"> <li>I can choose media to convey information – image for a poster</li> </ul>	<ul style="list-style-type: none"> <li>I can combine media to present information including text and images</li> </ul>	<ul style="list-style-type: none"> <li>I can use titles and subtitles</li> <li>I can insert an image</li> <li>I can insert a new slide</li> <li>I can select a design for slides</li> </ul>	<ul style="list-style-type: none"> <li>I can add word-art to a slide</li> <li>I can sequence slides</li> <li>I can insert a chart</li> <li>I can insert animations to slides</li> </ul>	<ul style="list-style-type: none"> <li>I can insert a table</li> <li>I can use transitions in slides</li> <li>I can rehearse timings for a slideshow</li> </ul>	<ul style="list-style-type: none"> <li>I can insert a hyperlink</li> <li>I can insert audio</li> <li>I can combine text and images within a slide</li> </ul>	<ul style="list-style-type: none"> <li>I can insert video</li> <li>I can combine animation with text.</li> </ul>



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Key National Curriculum Theme	Digital Literacy: Excel	<ul style="list-style-type: none"> <li>I can answer basic questions about information displayed in images.</li> </ul>	<ul style="list-style-type: none"> <li>I can access content in a range of formats including image, video and audio.</li> </ul>	<ul style="list-style-type: none"> <li>I can collect simple data.</li> <li>I can present data in a simple chart and pictogram.</li> </ul>	<ul style="list-style-type: none"> <li>I can present data in a chart.</li> <li>I can present data in a table.</li> </ul>	<ul style="list-style-type: none"> <li>I can present information using a suitable chart.</li> <li>I can enter data into a spreadsheet.</li> <li>I can name the key parts of a database.</li> <li>I can answer questions about information in a database.</li> </ul>	<ul style="list-style-type: none"> <li>I can draw conclusions from information stored in a database, chart or table.</li> <li>I can create graphs from information entered into a database.</li> <li>I can use simple formula in a spreadsheet to present information.</li> </ul>	<ul style="list-style-type: none"> <li>I can explain the difference between data and information.</li> <li>I can use filters in a database to find specific information.</li> <li>I can use simple formula in a spreadsheet to find information from a set of data.</li> <li>I can use function keys.</li> </ul>	<ul style="list-style-type: none"> <li>I can use a range of formula in a spreadsheet to compare information.</li> <li>I can analyse and evaluate data and information in a spreadsheet, chart or database.</li> <li>I can recognize that poor quality data leads to unreliable results.</li> <li>I can use keyboard shortcuts.</li> </ul>
	Digital Literacy Vocabulary	Mouse Mousepad Button Digital art Image	Laptop Password Keyboard Video Audio	Username Space bar Key Caps lock button Text Data Pictogram Chart	Backspace key Shift key Highlight Enter key Title Insert Slide Table	Underline Bold Font Centre Sequence Animation Spreadsheet Interpret Insert Cell Row Column	Bullet points Text box Word-art Orientation Justify Transition Construct Formula Format Sort Ascending Descending	Table Hyperlink Audio Database Filter Functions	Chart Find Replace Header Footer Video Unreliable Keyboard shortcuts