

Computing – Knowledge and Skills Progression Grid – Years 1,2,3

| ICT  | Year 1   | Year 2  | Year 3   |
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| <b>Vocabulary</b>  | mouse, computer, iPad, e-mail, app, algorithm, robot, information, website, online, mouse, image   | Save, program, debug, graph, data, link, keyboard, graphic, text, search engine   | Index, hyperlink, USB, copy, paste, URL, password  |
| <b>(Digital Literacy)</b><br><b>E-Safety</b>   | <ul style="list-style-type: none"> <li>Understanding that if they see something online they are not comfortable with, they should tell a trusted adult.</li> <li>Understanding 'stranger danger' also applies to online interactions.</li> <li>Understanding their username and password is personal to them and not to share it.</li> </ul>   | <ul style="list-style-type: none"> <li>Understanding the importance of not sharing personal information online.</li> <li>Understanding how to stay safe when talking to people online.</li> <li>Understanding the implications of inappropriate online searches.</li> <li>How to use email safely.</li> <li>Know ways to report inappropriate behaviours and content to a trusted adult.</li> </ul> | <ul style="list-style-type: none"> <li>Understanding what cyberbullying is and that it is unacceptable.</li> <li>Understanding that not all emails are genuine and how to recognise when an email might be fake and what to do about it</li> <li>Identify a range of ways to report a concern about content and contact.</li> <li>keeping passwords safe.</li> </ul>                   |
| <b>(Information Technology)</b><br><b>Research</b>                                   | <ul style="list-style-type: none"> <li>Collaboratively follow links to find information.</li> <li>Use a QR code to go to a website.</li> <li>Understand the different technologies that can be used for research e.g. iPad, Alexa, PC.</li> </ul>  | <ul style="list-style-type: none"> <li>Use simple children's search engine e.g. Kiddle to find purposeful information relevant to their topic given by a teacher.</li> </ul>  | <ul style="list-style-type: none"> <li>Ask their own questions then use ICT sources to find answers, making use of search engines, an index, and menus as appropriate.</li> <li>Children use and apply the information or resources they have found.</li> </ul>  |
| <b>(Information Technology)</b><br><b>Basic use of Devices</b>                       | <ul style="list-style-type: none"> <li>Develop coordination and motor skills in operation of a mouse or roller pad.</li> <li>Open a document or other file on a laptop or PC.</li> <li>Open appropriate app or home screen link on a tablet.</li> <li>Take a photo and open camera roll on a tablet.</li> <li>Follow a hyperlinked image to a website using a laptop or PC.</li> <li>Learning where keys are located on the keyboard.</li> </ul> | <ul style="list-style-type: none"> <li>Open apps and software independently.</li> <li>Save and open files and images.</li> <li>Insert images within apps and software.</li> </ul>   | <ul style="list-style-type: none"> <li>Connect devices using USB lead</li> <li>Use images saved to camera roll within a variety of Apps / software.</li> <li>Use 'save' and 'save as' on laptops and PCs.</li> <li>Copy and rename files to edit.</li> </ul>   |
| <b>(Information Technology)</b><br><b>Electronic Communication</b>                   | <ul style="list-style-type: none"> <li>Understand what an email is.</li> <li>Contribute ideas to a class email to be sent to another class / school etc.</li> </ul>  | <ul style="list-style-type: none"> <li>Work collaboratively by email to share and request information of another class/peer or story character. For example, using Purple Mash.</li> </ul>  | <ul style="list-style-type: none"> <li>Compose an email and send it by selecting the correct email address from a given bank of recipients using an appropriate platform e.g. Purple Mash.</li> <li>Begin to attach files to emails.</li> <li>List a range of ways the internet can be used to provide different methods of communication.</li> </ul>                                  |
| <b>(Information Technology)</b><br><b>Handling Data</b>                              | <ul style="list-style-type: none"> <li>As a class or individually with support, use a simple pictogram or painting program to develop simple graphical awareness / one to one correspondence.</li> <li>Talk about the ways in which information can be shown.</li> <li>Use chosen technology to collect information, including photos, video and sound.</li> </ul>   | <ul style="list-style-type: none"> <li>Use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph and answer questions.</li> <li>Enter information into a simple branching database, database or word processor and use it to answer questions.</li> <li>Save, retrieve and edit work.</li> </ul>   | <ul style="list-style-type: none"> <li>Talk about the different ways data can be organised. Search a ready-made database to answer questions.</li> <li>Add to a database.</li> <li>Make a branching database.</li> <li>Use a data logger to monitor changes and talk about the information collected.</li> <li>Consider what software is most appropriate for a given task.</li> </ul> |
| <b>(Information Technology)</b><br><b>Information Technology-Text and Multimedia</b> | <ul style="list-style-type: none"> <li>Work with others and with support to contribute to a digital class resource, which includes text, graphic and sound.</li> <li>Use the keyboard or a word bank on a device to enter text.</li> <li>Begin to learn how to name, save and retrieve their work.</li> </ul>  | <ul style="list-style-type: none"> <li>Save, retrieve and edit their work confidently.</li> <li>Use the keyboard on a device to add, delete and space text for others to read.</li> <li>Use a range of media in their digital content including photos, text and sounds.</li> </ul>   | <ul style="list-style-type: none"> <li>Beginning to combine a mixture of text, graphics and sound to share ideas and learning.</li> <li>Use appropriate keyboard commands to amend text on a device, including making use of a spellchecker.</li> </ul>  |
| <b>(Information Technology)</b><br><b>Digital Images</b>                             | <ul style="list-style-type: none"> <li>Use a range of simple tools in a paint package to create their own picture.</li> </ul>  | <ul style="list-style-type: none"> <li>Use a range of tools in a paint package / image manipulation software to create or modify a picture or to communicate an idea.</li> <li>Create a simple animation to tell a story (JIT.)</li> </ul>  | <ul style="list-style-type: none"> <li>Begins to manipulate given digital images using a range of tools in appropriate software.</li> </ul>  |
| <b>(Information Technology)</b><br><b>Sounds and Communication</b>                   | <ul style="list-style-type: none"> <li>Choose suitable sounds from a bank to express their ideas.</li> <li>Record short speech. Know how to record and play back. For example: sound buttons, iPads, recording clipboards etc</li> </ul>   | <ul style="list-style-type: none"> <li>Compose music from icons.</li> <li>Edit music compositions using a programme like 2Sequence.</li> </ul>  | <ul style="list-style-type: none"> <li>Beginning to add sound to digital work e.g. a Powerpoint or on JIT.</li> </ul>  |
| <b>(Computer Science)</b><br><b>Programming</b>                                      | <ul style="list-style-type: none"> <li>Give instructions to a friend and follow their instructions to move around.</li> <li>Describe what happens when buttons on a robot are pressed.</li> <li>Press the buttons in the correct order to make a robot (e.g. a</li> </ul>  | <ul style="list-style-type: none"> <li>Describe the order needed to make something happen and discuss this as an algorithm.</li> <li>Understand a friend's program and describe what will happen.</li> <li>Create a simple program that achieves a specific purpose.</li> </ul>   | <ul style="list-style-type: none"> <li>Design and code a program that follows a simple sequence.</li> <li>Use repeat commands and begin to understand the effect of timer commands.</li> <li>Describe the algorithm needed for a simple task.</li> </ul>   |

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|  | <p>beebot) follow a thought out set of instructions.</p> <ul style="list-style-type: none"> <li>• Describe what actions are needed to make something happen and begin to use the word algorithm.</li> <li>• Begin to use software/apps to create movement and patterns on a screen.</li> <li>• Begin to read code, one line at a time.</li> </ul> | <ul style="list-style-type: none"> <li>• Start to identify and correct some errors in a sequence.</li> <li>• Explain what an algorithm is and understand the need for their algorithm to be precise, so that it can be successfully converted into code.</li> </ul>                             | <ul style="list-style-type: none"> <li>• Detect a problems in an algorithm which could result in unsuccessful programming.</li> </ul>  |
| <p><b>(Computer Science)</b></p> <p><b>Understanding Technology in our Lives: Network</b></p>      | <ul style="list-style-type: none"> <li>• Show an awareness that what is created on a computer or tablet device can be shown to others via another device (e.g. printer, projector, Apple TV)</li> </ul>   | <ul style="list-style-type: none"> <li>• Begin to show an awareness that computers can be linked to share resources.</li> </ul>   | <ul style="list-style-type: none"> <li>• Beginning to show an understanding that their password is the key to accessing a personalised set of resources and files (e.g. My Documents).</li> <li>• Show an awareness of where passwords are critical in everyday use (e.g. parents accessing bank details)</li> </ul> |
| <p><b>(Computer Science)</b></p> <p><b>Understanding Technology in our Lives: The Internet</b></p> | <ul style="list-style-type: none"> <li>• Talk about what we use the internet for, with picture prompts where appropriate e.g. the Cbeebies logo.</li> <li>• Begin to understand what a website is.</li> </ul>   | <ul style="list-style-type: none"> <li>• Talk about the differences between the internet and things in the physical world.</li> <li>• Use websites and demonstrate an awareness of how to manage their journey around them (e.g. using the back/forward button, refresh, hyperlinks)</li> </ul> | <ul style="list-style-type: none"> <li>• Use search tools to find and use an appropriate website.</li> </ul>   |