

**Progression of Knowledge and Skills in Computing (Using Teach Computing Curriculum for KS1)**

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|  | **Computing systems and e-safety**  *Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.* | **Creating media**  *Use technology purposefully to create, store, manipulate and retrieve digital content.* | **Programming**  *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.* | **Data and Information**  *Use technology purposefully to create, organise, store, manipulate and retrieve digital content.* |
| **Year R** | **Familiar technology**   * Explore the use of technology for a range of purposes across the curriculum * Talk about technology used at home and use technology in role-play scenarios * Use the internet safely with an adult to find information | **Digital mark-making**   * Explore mark-making using age-appropriate apps and programs on the ipad and interactive whiteboard   **Digital photography**   * Capture images, video and sound using an ipad | **Position and direction**   * Follow a simple sequence of instructions given by an adult * Understand and use positional and directional language * Explore programming floor robots (beebots) to move in different directions | **Sorting and organising**   * Practically match and sort objects into sets, identifying similarities and differences and talk about how they have grouped them * Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity (ELG) |
| **Year 1** | **Technology around us**   * Identify technology in the classroom * Identify a computer and its main parts * Use a mouse in different ways * Use a keyboard to type * Use the keyboard to edit text * Create rules for using technology responsibly | **Digital painting**   * Describe what different freehand tools do * Use shape tool and line tools * Make careful choices when painting a digital picture * Explain why they chose the tools they used * Use a computer on their own to paint a picture * Compare painting a picture on a computer and on paper   **Digital writing**   * Use a computer to write * Add and remove text on a computer * Identify that the look of text can be changed on a computer * Make careful choices when changing text * Explain why they used the tools that they chose * Compare writing on a computer with writing on paper | **Moving a robot**   * Explain what a given command will do * Act out a given word * Combine forwards and backwards commands to make a sequence * Combine four direction commands to make sequences * Plan a simple program * Find more than one solution to a problem   **Programming animations**   * Choose a command for a given purpose * Show that a series of commands can be joined together * Identify the effect of changing a value * Explain that each sprite (graphic) has its own instructions * Design the parts of a project * Use own algorithm to create a program | **Grouping data**   * Label objects * Identify that objects can be counted * Describe objects in different ways * Count objects with the same properties * Compare groups of objects * Answer questions about groups of objects |
|  | **Information technology around us**   * Recognise the uses and features of information technology * Identify information technology in the home * Identify information technology beyond school * Explain how information technology benefits us * Show how to use information technology safely * Recognise that choices are made when using information technology | **Digital Presentation**   * Use a computer to write * Add and remove text and pictures on a computer * Identify that the look of text/picture/theme can be changed on a computer * Make careful choices when changing text * Explain why they used the tools that they chose * Compare presentations to fact files | **Robot algorithms**   * Describe a series of instructions as a sequence * Explain what happens when we change the order of instructions * Use logical reasoning to predict the outcome of a program (series of commands) * Explain that programming projects can have code and artwork * Design an algorithm * Create and debug a program that they have written   **Programming quizzes -**   * Explain that a sequence of commands has a start * Explain that a sequence of commands has an outcome * Create a program using a given design * Change a given design * Create a program using their own design * Decide how their project can be improved | **Pictograms**   * Recognise that we can count and compare objects using tally charts * Recognise that objects can be represented as pictures * Create a pictogram * Select objects by attribute and make comparisons * Recognise that people can be described by attributes   Explain that we can present information using a computer |