

**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)
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| **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
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|  | **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 |