	Early Years	Year 1	Year 2	Year 3
Computer Science	Use technology to solve problems and produce creative outcomes, such as creating pictures

Develop computational thinking through undertaking projects and exploring technology in conjunction with other activities, for example photos of learning, role play

Explore using the mouse to create

Explore moving BeeBots

e-books

Watching video clips and listening to music (adult led)

Working on the IWB, using educational website games and ActivInspire to create pictures | **By the end of key stage 1:**
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
Key vocabulary and phrases:
Keyboard, mouse, lens, microphone, GPS sensor, headphones, monitor screen, printer, light, scales, barcodes, scan, control, sequence, commands, clear, check, predict, algorithm, debugging. Event, execute, object, testing, user interface, background. Player, buttons, {: colspan=2} || Children begin to edit ideas and work using tools, demonstrating control on different devices and use of keyboard shortcuts, such as CTRL + C and CTRL + V

Children can insert a picture into own work

Children to use software to capture images and further edit sounds, including volume, duration and pauses

Children to begin recording film and plan animation |
| | | **By the end of Year 1:**
Write short algorithms and programs for floor robots, and predicting programs outcomes

Design and program the movement of a character on screen to tell stories | **By the end of Year 2:**
Create and debug programs, and use logical reasoning to make predictions

Design algorithms and programs that use events to trigger sequences of code to make an interactive quiz | |
| **Information Technology** | | **By the end of key stage 1:**
Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
Key vocabulary and phrases:
Shift, backspace, return/enter, spacebar, characters, emojis, document, font style, flashing cursor, auto-wrap, multimedia, undo, painting tools, focus, capture button, permission, landscape, portrait {: colspan=2} || Children can begin to explain how we communicate with each other online

Children can begin to explain how the internet is made of websites, finding their favourites and start to use efficient searching using safe search websites

Children to use logic to solve problems by breaking it down into smaller parts

Children use programming to create instructions, use commands, predict, test, debug and use variations

Children will begin to reflect on their own 'digital footprint' and |
| | | **By the end of Year 1:**
Recognise technology in school and use it responsibly

Write short algorithms and programs for floor robots, and predicting programs outcomes

Choose appropriate tools in a program to create art, and making comparisons with working non-digitally

Explore object labels, then use them to sort and group objects by properties | **By the end of Year 2:**
Identify IT and how its responsible use improves our world in school and beyond

Capture and change digital photographs for different purposes

Collect data in tally charts and use attributes to organise and present data on a computer

Use a computer as a tool to explore rhythms and melodies, before creating a musical composition

Design algorithms and programs that use events to trigger sequences of code to make an interactive quiz | |

		Use a computer to create and format text, before comparing to writing non-digitally		discuss strategies to stay safe, in regards, to pictures, sharing information and passwords
Digital Literacy		**By the end of key stage 1:** *Recognise common uses of 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* ***Key vocabulary and phrases:*** Back button, tabs, refresh/reload, history, navigate, menu, index, search, search engine, results,		Children to continue developing understanding of when to seek help when worried Children can discuss how data can be organised and sorted
		By the end of Year 1: Explore object labels, then use them to sort and group objects by properties Use a computer to create and format text, before comparing to writing non-digitally	**By the end of Year 2:** Capture and change digital photographs for different purposes Collect data in tally charts and use attributes to organise and present data on a computer	Children can use pre-made data to answer questions