



Progression of Skills in Computing

Early Years Foundation Stage

Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, which focuses on the learning and development of children from birth to age five, there are many opportunities for young children to use technology to solve problems and produce creative outcomes. In particular, many areas of the framework provide opportunities for pupils to develop their ability to use computational thinking effectively, such as through undertaking projects.

As young children take part in a variety of tasks with digital devices, such as moving a Bee Bot around a classroom, they will already be familiar with the device before being asked to undertake tasks related to the key stage one computing curriculum, such as writing and testing a simple program. Not only will children be keen to again use a device they had previously enjoyed using, their cognitive load will also be reduced, meaning they are more likely to succeed when undertaking activities linked to the next stage in their learning.

Within the revised EYFS statutory framework, the Technology strand within Understanding the World has been removed. However, there are opportunities within each area of the framework to enable practitioners to effectively prepare children for studying the computing curriculum.

Years 1-6

Statement ◆	Year ◆
Predict the behaviour of simple programs. (Coding)	1
Recognise common uses of information technology in the home and school environment. (Computers)	1
Understand what algorithms are and how they are implemented on digital devices. (Coding)	1
Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies. (E-Safety)	1
Use technology purposefully to create digital content. (Using Computer)	1
Create and debug simple programs. (Coding)	2
Create simple programs. (Coding)	2

Debug simple programs by using logical reasoning to predict the actions instructed by the code. (Coding)	2
Recognise common uses of information technology beyond school. (Computers)	2
Understand that programs execute by following precise and unambiguous instructions. (Coding)	2
Use logical reasoning to predict the behaviour of simple programs. (Coding)	2
Use technology purposefully to create digital content comparing the benefits of different programs. (Using Computer)	2
Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (Using Computer)	2
Use technology safely and keep personal information private. (E-Safety)	2
Design, write and debug programs that control or simulate virtual events. (Coding)	3
Make efficient use of familiar forms of input and output devices. (Computers)	3
Recognise familiar forms of input and output devices and how they are used. (Computers)	3
Understand that computer networks enable the sharing of data and information. (Networks)	3
Understand that the internet is a large network of computers and that information can be shared between computers. (Networks)	3
Use logical reasoning to explain how some simple algorithms work. (Coding)	3
Use simple search technologies. (Net Searching)	3
Use simple search technologies and recognise that some sources are more reliable than others. (Net Searching)	3
Use technology safely and recognise acceptable and unacceptable behaviour. (E-Safety)	3
Use technology safely and respectfully, keeping personal information private. (E-Safety)	3
With support select and use a variety of software to accomplish goals. (Using Computer)	3
Decompose programs into smaller parts. (Coding)	4
Select, use and combine a variety of software, systems and content that accomplish given goals. (Coding)	4
Understand how results are selected and ranked by search engines. (Net Searching)	4
Understand what servers are and how they provide services to a network. (Networks)	4
Use logical reasoning to detect and correct errors in algorithms and programs. (Coding)	4
Use other input devices such as cameras or sensors. (Computers)	4
Use technology responsibly and understand that communication online may be seen by others. (E-Safety)	4
With support select and use a variety of software on a range of digital devices. (Using Computer)	4
With support select, use and combine a variety of software on a range of digital devices to accomplish given goals. (Using Computer)	4
Begin to use internet services to share and transfer data to a third party. (Networks)	5
Design write and test simple programs with opportunities for selection, where a particular result will happen based on actions or situations controlled by the user. (Coding)	5
Design, input and test an increasingly complex set of instructions to a program or device. (Coding)	5
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. (Coding)	5
Design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated. (Coding)	5

Independently select and use appropriate software for a task. (Using Computer)	5
Independently select, use and combine a variety of software to design and create content for a given audience. (Using Computer)	5
Understand the need to only select age appropriate content. (E-Safety)	5
Use filters in search technologies effectively. (Net Searching)	5
Use filters in search technologies effectively and appreciates how results are selected and ranked. (Net Searching)	5
Use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency. (Coding)	5
Be discerning when evaluating digital content. (Net Searching)	6
Begin to use internet services within his/her own creations to share and transfer data to a third party. (Networks)	6
Create programs which use variables. (Coding)	6
Design and create a range of programs, systems and content for a given audience. (Using Computer)	6
Identify a range of ways to report concerns about content and contact in and out of school. (E-Safety)	6
Include use of sequences, selection and repetition with the hardware used to explore real world systems. (Coding)	6
Independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information. (Using Computer)	6
Independently select, use and combine a variety of software to design and create content for a given audience, including collecting, analysing, evaluating and presenting data and information. (Using Computer)	6
Solves problems by decomposing them into smaller parts. (Coding)	6
Understand how computer networks enable computers to communicate and collaborate. (Networks)	6
Use filters in search technologies effectively and is discerning when evaluating digital content. (Net Searching)	6
Use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently. (Coding)	6
Use technology respectfully and responsibly. (E-Safety)	6
Use variables, sequence, selection, and repetition in programs. (Coding)	6