

Computing End Point



EARLY YEARS FOUNDATION STAGE

Early Years Foundation Stage Statements

The most relevant statements for Computing are taken from the following areas of learning:

- Literacy
- Mathematics
- Personal, Social and Emotional Development
- Physical Development
- Expressive Arts and Design

Reception	Literacy	- Spell words by identifying sounds and then writing the sound with letter/s.
	Mathematics	- Link the number symbol (numeral) with its cardinal number value.
	Personal, Social and Emotional Development	- Show resilience and perseverance in the face of a challenge. - Know and talk about the different factors that support their overall health and wellbeing (sensible amounts of 'screen time').
	Physical Development	- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
	Expressive Art and Design	- Explore, use and refine a variety of artistic effects to express their ideas and feelings.
ELG	Literacy	- Write recognisable letters, most of which are correctly formed.
	Mathematics	- Subitise (recognise quantities without counting) up to 5.
	Personal, Social and Emotional Development	- Be confident to try new activities and show independence, resilience and perseverance in the face of a challenge. - Explain the reasons for rules, know right from wrong and try to behave accordingly.
	Expressive Art and Design	- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

On completion of Foundation Stage, a young computer scientist at Moor End will:

- They will learn skills and strategies to be resilient and persevere when faced with a challenging problem.
- They will explore different technology and use them for a purpose.
- They will talk openly about their experiences of different technology.
- They will have access to appropriate tools to be used for different purposes.
- They will begin to understand how to login and use a password to stay safe.
- They will have a simple understanding of how to stay safe online.
- They will use technology to enhance their learning in Literacy and Mathematics.

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E N D O F K E Y S T A G E 1



National Curriculum Objectives for KS1

Pupils should be taught to:

- 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.
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- 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.

On completion of Key Stage 1, a young computer scientist at Moor End will:

- They will be able to recall and use previous learning to support them.
- They will be able to logon using an individual username and password.
- They will demonstrate confidence when using a range of technology (such as floor turtles, data loggers, tablets, and laptops).
- They will be able to use a mouse, keyboard and turn devices on and off safely.
- They will know how to be safe online and who to ask for help.
- They will be able to select and use computer programs depending on the outcome.
- They will know and understand the words program and algorithm.

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E N D O F K E Y S T A G E 2



National Curriculum Objectives for KS2

Pupils should be taught to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

On completion of Key Stage 2, a young computer scientist at Moor End will:

- They will be able to recall and use previous learning to support them.
- They will use technology safely and responsibly both in and out of school.
- They will have a good awareness of online safety and their own digital fingerprint, knowing who to ask if they have any questions or concerns.
- They will understand how a computer network works.
- They will independently select and use a variety of hardware and software to accomplish a given goal.
- They will use technology appropriately to enhance their learning in other curriculum areas.
- They will use their coding skills to design, write and debug programs to accomplish specific goals