

Nailsworth C of E Primary School

Together, inspired by the challenge...



Computing

Computing Progression Map

Intent

At Nailsworth C of E Primary School we deliver a high quality computing education designed to equip pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

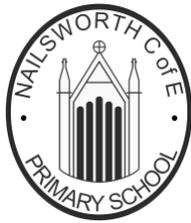
[National Curriculum - Computing key stages 1 to 2 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

Our curriculum is planned carefully and coherently to enable our children to become digitally literate – able to use, express themselves with and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Implementation

EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Listen to a broad selection of stories, non-fiction, rhymes and poems to foster understanding of our culturally, socially, technologically and ecologically diverse world.	Understand what algorithms are; how they are implemented as programs on digital devices; and understand that programs execute by following precise and unambiguous instructions	Understand what algorithms are; how they are implemented as programs on digital devices; and understand that programs execute by following precise and unambiguous instructions.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.





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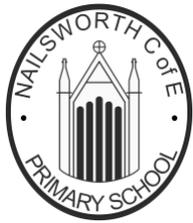


Computing



Y1	Y2	Y3	Y4	Y5	Y6
Create and debug simple programs.	Create and debug simple programs.	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
Use logical reasoning to predict the behaviour of simple programs.	Use logical reasoning to predict the behaviour of simple programs.	Use search technologies effectively.	Use search technologies effectively.	Use search technologies effectively.	Use search technologies effectively.
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Use technology purposefully to create, organise, store, manipulate and retrieve 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 and analysing.	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 and analysing.	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.	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.
Recognise common uses of information technology beyond school.	Recognise common uses of information technology beyond school.				

Y2	Y3	Y4	Y5	Y6
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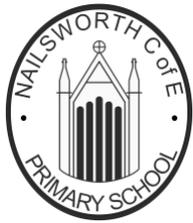
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Computing

<p>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.</p>	<p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p>	<p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p>	<p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p>	<p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p>
	<p>Use logical reasoning to detect and correct errors in algorithms and programs.</p>	<p>Use logical reasoning to detect and correct errors in algorithms and programs.</p>	<p>Use logical reasoning to detect and correct errors in algorithms and programs.</p>	<p>Use logical reasoning to detect and correct errors in algorithms and programs.</p>
	<p>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.</p>	<p>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.</p>	<p>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.</p>	<p>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.</p>





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Y4	Y5	Y6
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.	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.	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.
		Appreciate how search results are selected and ranked; be discerning in evaluating digital content.

Impact

By the end of Year 6, our children will:

- understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- be able to analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- be responsible, competent, confident and creative users of information and communication technology.

