

## Computing progression in the National Curriculum



These are the objectives that **must** be taught by the end of each Key Stage.

	<b>End of key stage expectation</b>
<b>Key Stage 1</b>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"><li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li><li>• Create and debug simple programs</li><li>• Use logical reasoning to predict the behaviour of simple programs</li><li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content</li><li>• Recognise common uses of information technology beyond school</li><li>• 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</li></ul>
<b>Key Stage 2</b>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"><li>• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li><li>• Use sequence, selection and repetition in programs; work with variables and various forms of input and output</li><li>• Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li><li>• 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</li><li>• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li><li>• 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</li><li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</li></ul>

These are the purple mash units that allow each objective to be reached by the end of each Key Stage. In each year group, each objective only needs to be completed by one of the units if more than one has been given the teacher can choose an appropriate unit to fit in with their curriculum planning.

National Curriculum Objectives – Key Stage 1		Purple Mash units – Year 1	Purple Mash units – Year 2
<b>Digital literacy</b>	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	<b>1.1 – Online Safety</b>	<b>2.2 – Online Safety</b>
	Recognise common uses of information technology beyond school	<b>1.9 – Technology Outside School</b>	<b>2.5 – Effective searching</b>
<b>Computer Science</b>	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	<b>1.5 – Maze Runners</b>	<b>2.1 – Coding</b>
	Create and debug simple programs	<b>1.7 – Coding</b>	
	Use logical reasoning to predict the behaviour of simple programs		
<b>Information technology</b>	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	<b>1.2 – Grouping and sorting</b> <b>1.3 – Pictograms</b> <b>1.6 – Animated stories</b> <b>1.8 – Spreadsheets</b>	<b>2.3 – Spreadsheets</b> <b>2.4 – Questioning</b> <b>2.5 – Effective searching</b> <b>2.6 – Creating pictures</b> <b>2.7 – Making music</b> <b>2.8 – Presenting ideas</b>

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National Curriculum Objectives – Key Stage 2		Purple Mash units – Year 3	Purple Mash units – Year 4	Purple Mash units – Year 5	Purple Mash units – Year 6
<b>Digital literacy</b>	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	3.2 – Online safety	4.2 – Online Safety	5.2 – Online Safety	6.2 – Online Safety
<b>Computer Science</b>	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	3.1 - Coding	4.1 - Coding 4.5 - Logo	5.1 - Coding	6.1 - Coding 6.5 – Text adventures
	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	3.5 - Email	4.7 – Effective searching	5.2 – Online Safety	6.4 - Blogging 6.6 - Networks
<b>Information technology</b>	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content		4.7 Effective searching		6.2 – Online Safety
	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	3.3 - Spreadsheets 3.4 - Typing 3.5 - Email 3.6 – Branching Databases 3.7 - Simulations 3.8 - Graphing	4.3 - Spreadsheets 4.4 – Writing for different audiences 4.6 - Animation	5.1 - Coding 5.3 - Spreadsheets 5.4 - Databases 5.5 – Game creator 5.6 – 3D modelling 5.7 – Concept Maps	6.3 - Spreadsheets 6.4 - Blogging 6.5 – Text adventures 6.7 - Quizzing

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