

KS1 National Curriculum for Computing

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.

Y1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety	iAlgorithm Beebots	iData Introducing data representation	iWrite Creating digital text Word Processing	iProgram Program a set of instructions –simple coding	iModel Adventure games
Y2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety	Computer Skills – locating, opening, closing files and folders, programs and apps. Effective	I Do Mail – introduction to email	iAnimate - creating animations	iProgram -algorithms and programming	Pub -creating ebooks

		use of devices. Use of touch screen (swipe, drag and drop, pinch to enlarge etc). Use of keyboard and mouse, identification of purpose of different keys (spacebar, return, delete, etc). Basic MS Office skills				
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KS2 National Curriculum for Computing

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

	<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>♣ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>					
Y3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety	iNetwork Exploring networks and learning how digital devices are connected together to form them	iSimulate Exploring computer simulations, investigating options and testing predictions	iProgram Developing computational thinking and programming animations with Scratch	iData Exploring databases to find information out and add records.	iPodcast Creating and editing audio podcasts
Y4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety	iProgram Developing computational thinking and programming skills to investigate angles and navigate mazes	iData Exploring data representation with databases	iMail Sending and receiving email safely and responsibly	iAnimate Combining narrative and artwork to create computer animations	iProgram Developing computational thinking and creating programs with Scratch
Y5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

	Online Safety	iProgram Developing computational thinking and programming animations with Scratch	iDraw Vector drawing Exploring how images are made from shapes and lines	iCrypto Cryptography Exploring data encryption	iWeb Exploring web design and construction	iModel Exploring 3D digital modelling Designing and constructing 3D models
Y6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety	iData Introducing Spreadsheets	iNetwork Networks, data representation, HTML/CSS	iProgram Designing and developing programs with Scratch	iApp Designing and developing apps with Bitsbox	iApp Designing and developing apps with App Inventor

