



Computing Curriculum Overview for KS1 2022-23

**Subject content - Key stage 1** 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 (test) 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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 1</b>	iSafe Personal Information and being Safe Online	iAlgorithm Unplugged activities to support understanding of algorithms	iProgram Algorithms & Programming	iWrite Creating, manipulating and storing digital text	iData Introduction to data representation	iModel Introduction to modelling
<b>Year 2</b>	iSafe eSafety	iProgram Creating Simple Animations	iPub Creating Interactive eBooks	iSearch Using the web to find things out	iAnimate Introduction to animation	iDo Mail i Blog Intro to email Google classroom (3 weeks) (3 weeks)



**Computing Curriculum Overview for KS2 2022-23**

**Subject content - Key stage 2 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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Year 3</b>	iSafe Staying Safe Online	iProgram Unit 1 Games and animation development	iSimulate Exploring Computer Simulations	iData Introducing Databases	iConnect Internet and the World Wide Web incl Searching	iNetwork Introducing Computer Networks
<b>Year 4</b>	iSafe Being Safe, responsible digital citizens	iProgram Unit 1 Making Shapes and Navigating Mazes	iProgram Unit 3/4 Programming Puzzles with LightBot	iMail Communicating and Collaborating via email	iData Introduction to data representation	iAnimate Introduction to data representation
<b>Year 5</b>	iSafe Being Safe, responsible digital citizens (2)	iProgram Designing and developing computer games	i Modal 3D Graphical modelling	iWeb Remixing and creating web content using HTML	iProgram Unit 2 Designing and developing multi-level X-Box games	iCrypto Introduction to cryptography
<b>Year 6</b>	iSafe Staying safe in a digital world	iProgram Unit 1 Designing and developing computer games	iProgram Unit 2 Designing and developing 3D animations	iNetwork Networks, data and creating web content	iApp Unit 1 Designing and Developing apps	iApp Unit 2 Designing and Developing mobile apps

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