KS1 National Curriculum for Computing

Pupils should be taught to:

Computer science

♣ 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

Information Technology

♣ use technology purposefully to create, organise, store, manipulate and retrieve digital content

♣ recognise common uses of information technology beyond school

Digital Literacy

♣ 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 Technology around us	**Digital painting**	**Moving a robot**	**Grouping data**	**Digital writing**	**Programming animations**
Y2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

	Online Safety Information technology around us	Digital photography	Robot algorithms	Pictograms	Digital music	Programming quizzes

KS2 National Curriculum for Computing

Pupils should be taught to:

Computer science

♣ 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

Information Technology

♣ 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

Digital Literacy

	♣ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.					
Y3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety Connecting computers	**Stop frame animation**	**Sequencing sounds**	**Branching databases**	**Desktop publishing**	**Events and actions in programs**
Y4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety The internet	**Audio production**	**Repetition in shapes**	**Data logging**	**Photo editing**	**Repetition in games**
Y5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety Systems and searching	**Video production**	**Selection in physical computing**	**Flat file databases**	**Vector graphics**	**Selection in quizzes**
Y6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Online Safety Communication and collaboration	**Introduction to spreadsheets**	**Variables in games**	**3d modelling**	**Webpage creation**	**Sensing movement**