

## Key Stage 2 National Curriculum Objectives

### Computer Science

*(How computers and computer systems work and how they are designed and programmed)*

### Information Technology

*(the purposeful use of existing programs to develop products and solutions)*

### Digital Literacy

*(the skills, knowledge and understanding needed in order to participate fully and safely in an increasingly digital world)*

A - design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

B - use sequence, selection, and repetition in programs; work with variables and various forms of input and output

C - use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

D - 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

E - use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

F - 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

G - use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

## KS2 Long Term Overview

Year	Curr Links	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>3</b>	<u>CS</u> <b>A B C</b> <b>D E</b>	Computing systems and networks – Connecting computers (B, D)		Programming A - Sequencing sounds (A, B, C)		Creating media – Desktop publishing (E)	Programming B - Events and actions in programs (A, B, C)
	<u>IT</u> <b>F</b>	(F)  Digital Literacy (G)	Creating media - Stop-frame animation (F)  Digital Literacy (G)	(F)	Data and information – Branching databases (F)  Digital Literacy (G)	(F)  Digital Literacy (G)	(F)
<b>4</b>	<u>CS</u> <b>A B C</b> <b>D E</b>	Computing systems and networks – The Internet (D, E)	Creating media - Audio production (E)	Programming A – Repetition in shapes (E)	Data and information – Data logging (B)		Programming B – Repetition in games (A, B, C)

	<u>IT</u> F	(F)  Digital Literacy (G)	(F)  Digital Literacy (G)	(F)  Digital Literacy (G)	(F)	Creating media – Photo editing (F)  Digital Literacy (G)	(F)
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Year	Curr Links	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
5	<u>CS</u> A B C D E	Computing systems and networks - Systems and searching (A, B, D,)	Creating media - Video production (E)	Programming A – Selection in physical computing (A, B, C)	Data and information – Flat-file databases (E)		Programming B – Selection in quizzes (A, B, C)
	<u>IT</u> F	(F)	(F) Digital Literacy (G)	(F)	Data and information – Flat-file databases (F)	Creating media – Introduction to vector graphics (F)	(F)

6	<u>CS</u> A B C D E	Computing systems and networks - Communication and collaboration (D)	Creating media – Web page creation (E)	Programming A – Variables in games (A, B, C)			Programming B - Sensing movement (A, B, C)
	<u>IT</u> F	(F) Digital Literacy (G)	Creating media – Web page creation (F) Digital Literacy (G)	(F)	Data and information – Spreadsheets (F)	Creating media – 3D Modelling (F)  Digital Literacy (G)	(F)