KS2 Computing Curriculum Overview

	Computing systems and networks	Creating media	Programming A	Data and Information	Creating media	Programming B
Year 3	Connecting Computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	Stop-frame animation Capturing and editing digital still images to produce a stop frame animation that tells a story.	Sequencing sounds Creating sequences in a block-based programming language to make music.	Branching databases Building and using branching databases to group objects using yes/no questions.	Desktop publishing Creating documents and modifying text, images, and page layouts for a specific purpose.	Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	The internet Recognising that the internet is a network of networks including WWW and why we should evaluate online content.	Audio production Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Repetition in shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.	Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	Photo editing Manipulating digital images and reflecting on the impact of the changes and whether the required purpose is filled.	Repetition in games Uding a block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5	Systems and searching Recognising IT systems in the world and how some can enable searching on the internet.	Video production Planning, capturing, and editing video to produce a short film	Selection in physical computing Exploring conditions and selection using a programmable microcontroller	Flat file databases Using a database to order data and create charts to answer questions.	Introduction to vector graphics Creating images in a drawing program by using layers and groups of objects	Selection in quizzes Exploring selection in programming to design and code an interactive quiz.
Year 6	Communication and collaboration Exploring how data is transferred by working collaboratively online.	Webpage creation Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.	Variables in games Exploring variables when designing and coding a game.	Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data	3D Modelling Planning, developing and evaluation 3D computer models of physical objects	Sensing movement Designing and coding a project that captures inputs from physical devices.

National Curriculum Coverage – Years 3 and 4	3.1 Connecting computers	3.2 Stop-frame animation	3.3 Sequencing sounds	3.4 Branching databases	3.5 Desktop publishing	3.6 Events and actions in programs	4.1 The internet	4.2 Audio production	4.3 Repetition in shapes	4.4 Data booking	4.5 Photo editing	4.6 Repetition in games
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 to 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 errors in algorithms and programs			✓			✓			✓			✓
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 services 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 way s to report concerns about content and contact.		✓		✓			✓	✓			✓	

National Curriculum Coverage – Years 5 and 6	5.1 Systems and searching	5.2 Video production	5.3 Selection in physical computing	5.4 Flat-file database	5.5 Introduction to vector graphics	5.6 Selection in quizzes	6.1 Communication and collaboration	6.2 Webpage creation	6.3 Variables in games	6.4 Introduction to spreadsheets	6.5 3D modelling	6.6 Sensing movement
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 to 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 errors in algorithms and programs			✓			✓			✓			✓
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 services 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 way s to report concerns about content and contact.	✓	✓						✓	✓		✓	