Computing Scheme of work overview

	Computing systems and networks	Creating media		Programming		Data and information
Year 1	**Technology around us** Recognising technology in school and using it responsibly	**Digital painting** Choosing appropriate tools in a programme to create art, and making comparisons with working non-digitally.	**Digital writing** Using a computer to create and format text, before comparing to writing non-digitally	**Moving a robot** Writing short algorithms and programs for floor robots, and predicting program outcomes.	**Programming animations** Designing and programming the movement of a character on screen to tell stories.	**Grouping Data** Exploring object labels, then using them to sort and group objects by properties.
Year 2	**Information technology around us** Identifying IT and how it's responsible use improves our world in school and beyond.	**Digital photography** Capturing and changing digital photographs for different purposes.	**Digital music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	**Robot algorithms** Creating and de-bugging programs and using logical reasoning to make predictions.	**Programming quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.	**Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.
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.	**Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose.	**Sequencing sounds** Creating sequences in a block based programming language to make music.	**Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.	**Branching Databases** Building and using branching databases to group objects using yes/no questions.
Year 4	**The Internet** Recognsing the internet as a network of networks including the WWW and why we should evaluate online content	**Audio production** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**Photo editing** Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	**Repetition in shapes** Using a text based programming language to explore count-controlled loops when drawing shapes.	**Repetition in games** Using a block based programming language to explore count-controlled and infinite loops when creating a game.	**Data logging** Recognising how and why data is collected over time, before using data loggers
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.	**Introduction to vector graphics** Creating images in a drawing program by using layers and groups of objects.	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller.	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.	**Flat file databases** Using a data base to order data and create charts to answer questions
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.	**3D Modelling** Planning, developing and evaluating 3D computer models of physical objects.	**Variables in games** Exploring variables when designing and coding a game.	**Sensing movement** Designing and coding a project that captures inputs from a physical device	**Introduction to spreadsheets** Answering questions by using spread-sheets to organise and calculate data.