Whole School Computing Curriculum Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing Strands	Computing systems and networks	Creating media	Programming A	Data and Information	Creating media	Programming B
Year 1	**Technology around us (1.1)** Recognising technology in school and using it responsibly.	**Digital painting (1.2)** Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	**Moving a robot (1.3)** Writing short algorithms and programs for floor robots, and predicting program outcomes.	**Grouping data (1.4)** Exploring object labels, then using them to sort and group objects by properties.	**Digital writing (1.5)** Using a computer to create and format text, before comparing to writing non-digitally.	**Programming animations (1.6)** Designing and programming the movement of a character on screen to tell stories.
Year 2	**Information technology around us (2.1)** Identifying IT and how its responsible use improves our world in school and beyond.	**Digital photography (2.2)** Capturing and changing digital photographs for different purposes.	**Robot algorithms (2.3)** Creating and debugging programs, and using logical reasoning to make predictions.	**Pictograms (2.4)** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Making music (2.5)** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	**Programming quizzes (2.6)** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
Year 3	**Connecting computers (3.1)** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	**Stop-frame animation (3.2)** Capturing and editing digital still images to produce a stop-frame animation that tells a story.	**Sequencing sounds (3.3)** Creating sequences in a block-based programming language to make music.	**Branching databases (3.4)** Building and using branching databases to group objects using yes/no questions.	**Desktop Publishing (3.5)** Creating documents by modifying text, images, and page layouts for a specified purpose.	**Events and actions in programs (3.6)** Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	**The internet (4.1)** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	**Audio editing (4.2)** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**Repetition in shapes (4.3)** Using a text-based programming language to explore count-controlled loops when drawing shapes.	**Data logging (4.4)** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	**Photo editing (4.5)** Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	**Repetition in games (4.6)** Using a block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5	**Sharing information (5.1)** Identifying and exploring how information is shared between digital systems.	**Video Editing (5.2)** Planning, capturing, and editing video to produce a short film.	**Selection In physical computing (5.3)** Exploring conditions and selection using a programmable microcontroller.	**Fact-file databases (5.4)** Using a database to order data and create charts to answer questions.	**Vector drawing (5.5)** Creating images in a drawing program by using layers and groups of objects.	**Selection in quizzes (5.6)** Exploring selection in programming to design and code an interactive quiz.

Year 6	**Internet communication (6.1)** Recognising how the WWW can be used to communicate and be searched to find information.	**Webpage creation (6.2)** Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.	**Variables in games (6.3)** Exploring variables when designing and coding a game.	**Introduction to spreadsheets (6.4)** Answering questions by using spreadsheets to organise and calculate data.	**3D modelling (6.5)** Planning, developing, and evaluating 3D computer models of physical objects.	**Sensing (6.6)** Designing and coding a project that captures inputs from a physical device.

In all lessons, children are reminded about how to use digital equipment appropriately. Online safety is discussed in every computing lesson and whenever the children use computing equipment. Additionally, online safety is explicitly taught through at least three lessons following our Natterhub scheme of learning each half term alongside other computing subjects.